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Technology Innovation Wealth

EDITORIAL NOTE

Welcome to the inaugural Volume 1 (Issue 1) of the JMSIT. The Journal is born out of the desire to publish original manuscripts in various areas that are in line with advancing development along the lines of Strategic Development Goals (SDGs), African Union Agenda 2063, the Zimbabwean Vision 2030, among other international and national strategic intents and targets. This issue focused covered a variety of topics, inter alia: management, marketing, supply chain, human resources management, international business, knowledge management, technology, strategic decision making, corporate governance, entrepreneurship, innovation, hospitality management, tourism management, information system and artificial intelligence.

The philosophy of Education 5.0 (E5.0) centres on teaching, research, community service, innovation and industrialisation. This issue contributes to E5.0 through the plethora of articles in this issue which cover most if not all pillars of the philosophy.

Overall, the issue covers contemporary topics that organisations in both the public and private sectors are grappling with.

As Editor in Chief of this esteemed Journal, I encourage new and current contributors to share more manuscripts for which we promise to give due consideration and make this Journal a contributor to academia and a source of solutions for problems bedevilling humanity.

We look forward to the next issue.

Chief in Editor

Professor Obert Sifile

June 2025

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Using Porter's Diamond Model to Enhance Reindustrialisation and Export Performance in Zimbabwe

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ABSTRACT

This study sought to enhance Porter's Extended Diamond Model by incorporating additional elements to better explain reindustrialisation and export performance in the Zimbabwean manufacturing sector. The study sought to identify the relationship between internal organisational factors and export performance in Zimbabwe's manufacturing sector; evaluate the relationship between macroeconomic conditions and export performance in Zimbabwe; examine the moderating effect of institutional quality on the relationship between reindustrialisation and export performance; and propose an enhanced Extended Diamond Model for reindustrialisation and improved export performance. Data was collected through a quantitative survey of 384 active manufacturing exporters in Zimbabwe, and analysed using multiple linear regression and structural equation modelling. Findings revealed that internal organisational factors and macroeconomic conditions significantly improved export performance, while institutional quality moderated the foregoing relationship. This provided a basis for an enhanced model for understanding the determinants of competitive advantage in developing economies, offering actionable insights for policymakers and industry stakeholders. The study concludes that Zimbabwe's reindustrialisation efforts must prioritise organisational capabilities, macroeconomic stability, and institutional reforms to achieve sustainable export growth. The study recommended that exporting manufacturers intensify investment in internal organisational capabilities; the government maintain and enhance macroeconomic stability; institutional reforms be accelerated to improve governance and regulatory quality; the enhanced Extended Diamond Model be adopted and operationalised as a policy diagnostic tool; transport and logistics infrastructure be upgraded to lower trade costs; and export diversification be promoted through market intelligence and trade promotion.

Keywords: Porter's Diamond Model, reindustrialisation, export performance, manufacturing sector

Background of Study

Over the past century, economies worldwide have undergone profound transformations, transitioning from agrarian-based systems to manufacturing-led growth and, more recently, to service- and technology-driven activities. Industrialisation fuelled urbanisation, infrastructure development, and the expansion of the middle class as manufacturing became the primary engine of economic growth (Amsden, 1992). Industrialisation marked the transition from agrarian economies to manufacturing-driven growth, facilitating urbanisation and the rise of the middle class (Amsden, 1992). However, the late 20^{th} century saw a shift towards a service-based economy, driven by globalisation and technological advancements (Moyo, 2020). This transition led to deindustrialisation in many developed nations, where manufacturing jobs declined in favour of service-oriented employment (Andreoni, 2018). The interplay between industrialisation and deindustrialisation reveals a complex relationship, where these processes are interconnected phases of economic development (Stearns et al., 2020).

Reindustrialisation strategies have been critical in sustaining economic competitiveness and fostering resilience in the face of global shocks. In advanced economies such as the United States and Germany (Altenburg, 2024). Efforts to reindustrialise have focused on high-tech and advanced manufacturing sectors, areas where automation, robotics, and digital technologies can enhance productivity and create new export opportunities (Altenburg, 2024; Thürer et al., 2024). The success of these models frequently hinges on robust government–industry–academia collaboration, often conceptualised through the Triple Helix framework, which underscores the importance of aligned innovation ecosystems for driving sustainable industrial growth (Cai & Etzkowitz, 2020). Similarly, export-oriented approaches in East Asia, particularly South Korea's emphasis on heavy industries and chaebol support, as well as Taiwan and Singapore's favourable trade policies, demonstrate how targeted industrial policy can integrate domestic firms into global value chains and boost export performance (Avlijas et al., 2021).

In Africa, reindustrialisation is increasingly viewed as essential for economic diversification, poverty reduction, and resilience against commodity price volatility (Tregenna, 2023). The African Union's Agenda 2063 sets forth a vision to significantly increase the continent's share of global manufacturing output, while the African Development Bank highlights industrialisation as a key driver of regional integration and inclusive growth (Dagada & Lekaba, 2024). Regional blocs such as ECOWAS and SADC have implemented trade liberalisation schemes and industrial policies to reduce barriers, attract investment, and strengthen value chains (Habanabakize & Dickason- Koekemoer, 2023). Case studies from Ethiopia's textile and garment sectors to Rwanda's investment in technology and innovation illustrate how government intervention, infrastructure development, and skills training can spur manufacturing growth and improve export competitiveness (Haraguchi et al., 2017; Tregenna, 2023).

Zimbabwe has faced significant deindustrialisation over recent decades, leading to a sharp decline in the competitiveness of its manufacturing sector (Magidi, 2024). Once a vibrant pillar of the economy, the manufacturing industry has been plagued by challenges such as outdated equipment, rising production costs, and a debilitating tax environment (Fessehaie & Rustomjee, 2018). These issues have severely restricted local manufacturers' abilities to produce competitive goods for both regional and international markets resulting in a notable decrease in export performance and a growing reliance on imports (Chinjova, 2019).

The repercussions of deindustrialisation have been dire, contributing to widespread unemployment and escalating poverty levels (Magidi, 2024). Hyperinflation has exacerbated these challenges, eroding purchasing power and creating an unpredictable economic environment that discourages investment (Fessehaie & Rustomjee, 2018). Many businesses struggle to modernise their operations due to escalating costs and a lack of access to foreign currency, which hampers their ability to import necessary equipment and materials (Bhoroma, 2021; Mazikana, 2023). The contraction of the manufacturing sector is reflected in its contribution to GDP, which plummeted from 26.9% in 1992 to approximately 11.7% in 2014 (Kanyenze, 2022). Over 500 organisations shut down in the last decade, with several large companies on the verge of collapse (Ministry of Industry and Commerce, 2018). Additionally, at least 150 organisations collapsed in 2016, leaving hundreds without jobs as deindustrialisation continued to cripple the economy (Kuwaza, 2016). State-Owned Enterprises, including Hwange Colliery and the National Railways of Zimbabwe, were also not spared, retrenching thousands of workers in 2016 (Mambiravana et al., 2022).

From 1985 to 1991, Zimbabwe's manufacturing sector experienced substantial growth, with output peaking at US$2.08 billion in 1991, representing 24.1% of GDP (CZI, 2010). However, mid-1990s economic reforms and structural adjustment programs imposed by international financial institutions prioritised macroeconomic stabilisation over local industrial growth (ZimTrade, 2022). Additionally, the land reform programme of the late 1990s disrupted agricultural production, leading to a shortage of raw materials for the manufacturing sector (Gwacha, 2017). The years 2000 to 2008 represent severe deindustrialisation for Zimbabwe, characterised by drastic declines in manufacturing output and economic instability (Gwacha, 2017). Manufacturing output plummeted to US$0.70 billion in 2003, contributing only 12.17% to GDP (Gawe, 2021). Hyperinflation eroded purchasing power, leading to widespread business closures, rampant unemployment, and a significant contraction of the manufacturing workforce (Kuwaza, 2016; ZimTrade, 2022). Infrastructure decay, power shortages, unreliable transportation networks, and deteriorating facilities further exacerbated the crisis (ZimTrade, 2022).

From 2009, the manufacturing sector began to show signs of recovery, with output increasing to US$2.40 billion by 2012, fueled by government initiatives aimed at stabilising the economy and revitalising industries (Mambiravana et al., 2022). However, this recovery has been marked by volatility, revealing the fragility of the sector (ZimTrade, 2024). For example, the spike in output to US$4.67 billion in 2018 was not sustained, with output dropping to US$3.66 billion in 2023 (ZimTrade, 2024). This instability is attributed to factors such as global commodity price fluctuations, power shortages, and foreign currency challenges (ZimTrade, 2022). The manufacturing sector continues to face significant hurdles, including competition from imports, inadequate infrastructure, and limited access to financing (Saungweme & Odhiambo, 2021).

Zimbabwe has implemented several strategic policies over the years, such as the Short-Term Emergency Recovery Program (STERP), Industrial Development Policy (IDP), Vision 2030, Zimbabwe National Industrial Development Policy (ZNIDP), and the National Development Strategy 1 (NDS1). Despite these efforts, the manufacturing sector has faced significant challenges. For instance, the sector experienced a 1.3% decline in capacity utilisation during the third quarter of 2024, primarily due to cash flow difficulties, electricity shortages, and economic uncertainty. The sector's contribution to GDP has been declining since 1980, falling to 9% in 2023 from a high of 23%. Export performance has also been struggling, with a 17.1% decline in exports during March 2024, leading to a trade deficit of US$184.3 million. Key exports like tobacco and nickel mattes have been affected by global price fluctuations and local production challenges (ZimTrade, 2024).

To address these pressing challenges, a robust framework for reindustrialisation is essential. Porter's Extended Diamond Model, which expands on the original framework provides a foundational tool for understanding the determinants of industrial success. While the model highlights critical elements contributing to competitive advantage, its application in the Zimbabwean context exposes certain inadequacies as the original framework does not fully capture the unique challenges and dynamics of reindustrialisation in a developing economy. This study aims to enhance Porter's Extended Diamond Model to better reflect the realities of Zimbabwe's manufacturing landscape.

Statement of the Problem

The Zimbabwean manufacturing sector is experiencing a severe and sustained contraction that undermines both its practical viability and the theoretical frameworks used to understand its performance. Practically, the sector's contribution to GDP has fallen precipitously from 26.9% in 1992 to approximately 9% in 2023 (Kanyenze et al., 2017; Zimstats, 2024), with over 500 firms closing in the last decade—150 of which collapsed in 2016 alone—resulting in widespread unemployment, heightened poverty, and a shrinking industrial base (Ministry of Industry and Commerce, 2018; Kuwaza, 2016). The cumulative effect has led to a significant reliance on imports for essential goods (ZimTrade, 2022), undermining the local manufacturing capacity and contributing to a trade deficit of US$184.3 million in March 2024 (ZimTrade, 2024). This decline reflects chronic operational setbacks, such as reduced production capacity, unpredictable supply chains, and constrained access to essential inputs, which collectively hinder manufacturers' ability to satisfy local demand or compete abroad. Institutionally, policy inconsistency and insufficient regulatory support have further eroded business confidence. Theoretically, Porter's Extended Diamond Model does not reflect Zimbabwe's unique challenges. It overlooks internal organisational constraints. It ignores macroeconomic volatility, such as inflation and currency instability and fails to account for institutional fragility, such as weak governance and bureaucratic delays. As a result, there is an urgent need for a revised analytical framework which must integrate organisational, economic, and institutional factors. Only then can reindustrialisation strategies align with the realities facing Zimbabwean manufacturers.

Objective of the Study

The primary objective of the study was to enhance Porter's Extended Diamond Model by establishing the relationship between additional elements and export performance in Zimbabwe's manufacturing sector through the evaluation of the relationship between macroeconomic conditions and export performance in Zimbabwe and examining the moderating effect of institutional quality on the relationships between reindustrialisation and export performance.

Literature Review

This literature review is divided into three sections: a theoretical overview of Porter's Extended Diamond Model, examining its applications and limitations in developing economies, and an empirical review of studies on how internal organisational factors, macroeconomic conditions, and institutional quality affect export performance in contexts similar to Zimbabwe. A critical analysis then identifies gaps and inconsistencies in the existing literature, laying the groundwork for proposed enhancements to the model.

Review of Porter's Extended Diamond Theory

The Extended Porter's Diamond Model is key in the context of reindustrialisation strategies and export performance. The extended diamond model was developed from the work by Porter (1990) as an essential analytical tool that provides useful insights into a country's competitiveness in the global market. This comprehensive tool is an expansion of Porter's original diamond framework, which was created to investigate the elements influencing a country's capacity to compete in international markets (Kumar *et al.*, 2021). Porter (1990) notes that the understanding of national advantage starts with four (4) premises, namely: (1) The nature of competition and sources of competitive advantage differ among industries and industry segments; (2) The home base is where the strategy is set for international success; (3) Competitive advantage is gained and sustained internationally through improvement, innovation, and upgrading both in technology and production methods, as well as in the accumulation of small steps; (4) The competitive advantage in an industry is gained by organisations that move early and most aggressively to exploit a new market need or potential.

Porter (1990) argued in favour of a new trade theory where competition is founded in segmented markets, differentiated products, technological differences and economies of scale, a theory able to define why organisations from certain countries implement better strategies than others competing in certain sectors (Kiran, 2019). Porter also sought to explain why some regions are more competitive than others, and tried to clarify how organisations gain prominent positions in sectors of the country on global competitiveness (Tapererwa *et al.*, 2023). Porter came up with the Diamond Model to identify factors of competitive advantage of countries and sectors and to create a structure that determines the rules of competition in a sector towards achieving a long-term competitiveness (Kiran, 2019), associating the determinants of sectors that have competitive advantage with values of the four corners of the diamond, as indicated earlier, described as factors affecting competitiveness (Alavi *et al.*, 2020).

Thus, the Extended Diamond Framework includes six critical factors that affect a country's competitiveness: factor conditions, demand conditions, related and supporting industries, firm strategy, structure, and rivalry, government policies, and chance (Porter, 1990). Figure 1 illustrates the extended diamond model.

Factor Conditions: This element pertains to the resources available within a country, such as natural resources, skilled labor, infrastructure, and technology. Porter (1990) distinguishes between basic factors (e.g., unskilled labor, raw materials) and advanced factors (e.g., skilled labor, innovation). Critically, while the model emphasizes the significance of these conditions, it often overlooks regional disparities within countries, which can significantly affect competitiveness (Butt et al., 2019). Furthermore, the interaction between macro-level national policies and micro- level firm strategies highlights the necessity for businesses to effectively leverage available resources (Saraswati et al., 2019).

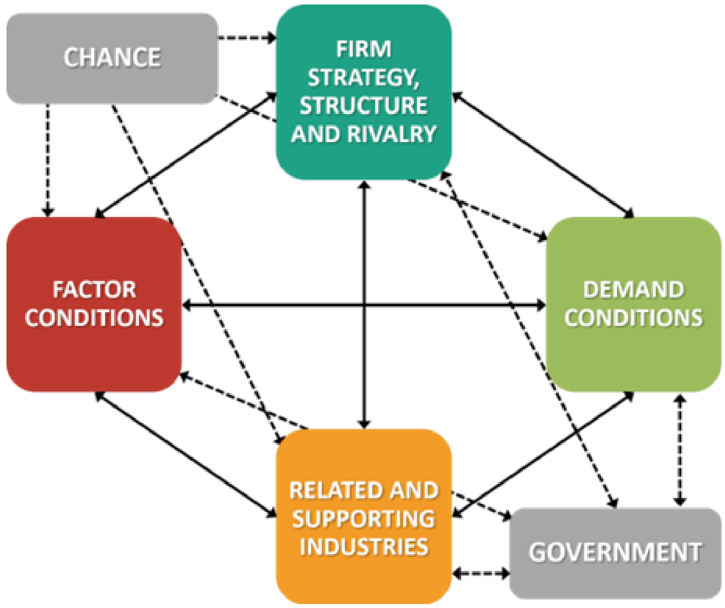

Figure 1: *Porter's Extended Diamond Model*

Source: Porter (1990:157)

Demand Conditions: Demand conditions refer to the characteristics of consumer demand, including purchasing power and preferences. Porter argues that sophisticated home demand can drive innovation (Kiran, 2019). However, critics suggest that the model may not fully account for the rapidly evolving nature of consumer preferences, especially regarding sustainability and ethical consumption (Mayer et al., 2021). As such, firms must remain agile to adapt their products to meet changing demands in both domestic and international markets (Ferrarese & Malavasi, 2022).

Related and Supporting Industries: This component emphasizes the importance of having a network of related industries that can support and enhance competitive advantage. A robust ecosystem of suppliers and partners fosters innovation and efficiency. Critics argue that the model does not adequately address the impact of global supply chains on local competitiveness (Tapererwa et al., 2023). The strength of related and supporting industries in Zimbabwe hinges on their capacity to adopt digital platforms and foster linkages that extend beyond national borders. In addition, the researcher believes that local supplier clusters must be deliberately upgraded through skills development and technology transfer to avoid dependency on volatile foreign inputs.

Firm Strategy, Structure, and Rivalry: The effectiveness of a firm's strategy and the nature of domestic competition are critical for achieving competitive advantage. This factor highlights the role of competitive rivalry in driving firms to innovate and improve. However, the model has been critiqued for not considering the role of collaboration among firms, which can also lead to enhanced competitiveness (Kiran, 2019). The researcher contends that in the Zimbabwean context, firms would benefit from formalised cooperative platforms such as industry consortia, that balance rivalry with shared research and development efforts. In addition, small and medium-sized enterprises should adopt agile organisational structures to respond swiftly to market changes and leverage collective strengths in supply chain negotiations.

Government Policies: Government intervention through policies and regulations is pivotal in shaping the competitive landscape. Supportive policies can enhance competitiveness, while restrictive ones may hinder it. Critics highlight that the model may not sufficiently explore the implications of political stability and governance quality on national competitiveness (Alavi et al., 2020). Thus, coherent policy frameworks must be paired with transparent governance to build investor confidence and encourage long-term industrial investment. Furthermore, regulatory agencies should incorporate regular stakeholder feedback loops to ensure that policy adjustments keep pace with industry needs and global best practices.

Chance: The inclusion of chance acknowledges the unpredictability of external events, such as economic crises or technological disruptions, which can significantly impact competitiveness. Critics note that while chance is an important factor, its vagueness can lead to challenges in strategic planning (Tapererwa et al., 2023). Chance events in Zimbabwe such as sudden shifts in foreign currency availability should be modelled through scenario planning rather than left to abstract interpretation. In addition, integrating real-time risk monitoring systems to mitigate the impact of unforeseen disruptions on manufacturing competitiveness.

Criticism of Porter's Diamond Theory

Porter's Diamond Theory, while influential, faces substantial criticism. Management scholars (Rugman & D'Cruz, 1993) argue its focus on the home country's diamond neglects the significant influence of a nation's largest trading partner and is unsuitable for smaller nations, overlooking multinational corporations' roles (Namburete, 2023). Economists (Davis & Ellis, 2000) contend its generality renders it inexplicably vague, failing to distinguish between domestic productivity and international competitiveness. The theory's overemphasis on geographic proximity (Jambor et al., 2018) and dismissal of comparative advantage (Davis & Ellis, 2000), contradicted by the success of East Asian economies (Cho et al., 2009), are further weaknesses. The assertion that nations compete internationally like firms (Narayan & Bhattacharya, 2018) is also contested, with evidence suggesting factors like labour costs and exchange rates significantly impact exports (Davis & Ellis, 2000), contrary to Porter's view. Furthermore, the model's interpretation of FDI (Porter, 1990) is challenged by findings linking inward FDI to successful development (Kiran, 2019; Liu et al., 1997).

The Diamond model's limitations extend to its inadequacy as an export stimulation model (Tsai et al., 2021), neglecting crucial export-related infrastructure and external factors like global demand (Nandi & Nandi, 2020). Its developed-country bias (Petroni et al., 2019) overlooks the constraints faced by developing economies regarding factor mobility, macroeconomic stability, and institutional frameworks (Petroni et al., 2019; Tsai et al., 2021; Nandi & Nandi, 2020). The model's insufficient consideration of multicurrency dynamics (Morrison, 2022; Butt et al., 2019) and its neglect of political and economic instability (Petroni et al., 2019; Kharub & Sharma, 2017; Vlados, 2019) further restrict its applicability, particularly in volatile environments. Finally, the model's oversight of crucial infrastructure deficiencies (Vlados, 2019; Elida et al., 2023) highlights the need for a more comprehensive framework, especially for developing economies.

Bridging the Limitations of Porter's Extended Diamond Model

This study extends Porter's Diamond model to address its limitations in analysing developing economies, specifically focusing on Zimbabwe's reindustrialisation and export performance. The original model, while useful for developed nations, inadequately captures the challenges faced by countries with economic volatility and infrastructural deficiencies (Petroni et al., 2019; Nandi &

Nandi, 2020). This necessitates the inclusion of internal organisational factors, as firm-specific strengths are paramount in driving competitive advantage, particularly during reindustrialisation, a facet under-represented in the original framework (Barney et al., 2021). Furthermore, macroeconomic conditions, directly impacting industrial growth and export activities (Haraguchi et al., 2019), and institutional quality, crucial for fostering a stable investment climate (Acemoglu & Robinson, 2012), are incorporated to provide a more holistic and contextually relevant analysis.

The incorporation of internal organisational factors – encompassing distinct capabilities, manufacturing capabilities, and export market orientation – directly addresses the original model's insufficient consideration of firm-level resources and capabilities (Rugman & D'Cruz, 1993). Similarly, the inclusion of macroeconomic conditions (economic growth, exchange rates, and inflation) rectifies the original model's neglect of external economic forces that significantly impact industrial growth and export performance (Davis & Ellis, 2000). These factors are particularly crucial for economies vulnerable to external shocks.

The addition of institutional quality (rule of law, government effectiveness, and governance and accountability) explicitly addresses the original model's lack of focus on institutional factors, a critical oversight for developing economies where institutional weaknesses often hinder economic development (Tsai et al., 2021; Chen, 2023). By incorporating these additional elements, the extended model offers a more robust and context-specific analysis of Zimbabwe's reindustrialisation and export performance, leading to more effective policy recommendations tailored to its unique economic context.

Empirical Studies Review

Internal Organisational Factors and Export Performance

The literature on internal organisational factors and export performance consistently highlights the positive impact of various capabilities on export success. Distinct organisational capabilities, such as technological innovation, market research, and quality management, are shown to significantly enhance export outcomes, underscoring the necessity for firms to cultivate unique resources (Antonioli et al., 2022; Chen et al., 2021). Additionally, R&D capabilities and brand reputation further contribute to this positive relationship, indicating that firms with strong internal competencies are better positioned to navigate international markets and achieve superior performance (Rehman et al., 2020; Teguh et al., 2020).

Moreover, the relationship between manufacturing capabilities and export success is generally positive but can vary by context. While studies indicate that effective quality management, innovation, and supply chain management are beneficial for export performance (Awuah et al., 2021; Saeed et al., 2019), some research suggests these capabilities may not yield significant results in every context (Mostafiz et al., 2021; Kwon & Kim, 2019). Additionally, export market orientation emerges as a crucial internal factor linked to enhanced export performance, reinforcing the importance of a market-focused approach within firms (Kolbe et al., 2022; Elia et al., 2020). Overall, these findings highlight the critical role of internal organisational factors in driving export success, while also calling for further research to explore the contextual nuances of these relationships.

Macroeconomic Conditions and Export Performance

The relationship between macroeconomic conditions and export performance has been extensively studied, with a particular focus on economic growth, exchange rates, and inflation. Economic growth, as defined and explored by various researchers, plays a crucial role in enhancing export capacity and demand. Oyetade et al. (2020) found that higher GDP growth supports increased export capacity, while Hendrasto et al. (2023) concluded that economic growth improves competitiveness, which is essential for boosting export demand. Avagyan et al. (2021) discovered that economic growth leads to better living standards, boosting export demand, and Khairova et al. (2023) showed that job creation resulting from economic growth increases disposable income, thereby stimulating export markets. Laksono and Tarmidi (2021) highlighted the importance of growth in developing economies, where labor force enhancement can expand the export base. Zaena et al. (2023) emphasized the role of strong institutions in improving trade policies, ultimately affecting exports positively. Wulandari et al. (2020) found that economic growth correlates with increased manufacturing capacity, leading to higher exports.

Exchange rates and inflation significantly influence export performance as well. Nweke et al. (2020) established that favorable exchange rates enhance a country's export competitiveness, while Kiptarus et al. (2022) indicated that stable exchange rates reduce uncertainty, encouraging export activities. However, exchange rate fluctuations can have mixed effects on trade balances (Gebremariam & Ying, 2022). Understanding inflation is essential for managing export pricing strategies, as Ektiarnanti et al. (2021) explained. High inflation can reduce consumer purchasing power and shift consumption patterns negatively, affecting export demand (Arifah & Kim, 2022; Javed et al., 2020). Persistent inflation can destabilize currencies, adversely impacting export performance (Purnamasari et al., 2022), and rising manufacturing costs due to inflation can diminish competitiveness in export markets (Kibet & Kiprop, 2023). Monetary policy can stabilize exchange rates, boosting export performance, as Hussain et al. (2024) demonstrated. These interrelated macroeconomic factors contribute to the complexity of enhancing export performance in various economic contexts.

Moderating Effect of Institutional Quality

The research on the mediating effect of institutional quality on the reindustrialisation-export performance nexus underscores the importance of governance structures, particularly the rule of law and government effectiveness. Studies indicate that a strong rule of law fosters a conducive environment for trade, enhancing export performance through legal certainty (Edeme & Mumuni, 2023). Furthermore, the rule of law promotes accountability and builds trust among trading partners, which is essential for facilitating reindustrialisation (Gabriel, 2023). In contrast, weak legal systems can deter foreign investment and hinder domestic export capabilities (Gogić, 2021), while declining rule of law in regions like Zimbabwe has been linked to negative impacts on foreign investment and export performance (Moyo, 2018).

Government effectiveness also plays a critical role in this dynamic. Effective governance mobilises resources for industrial growth, thereby improving export performance (Androniceanu & Georgescu, 2023). Studies highlight that strong governance leads to better infrastructure investment, which supports industrial activities and exports (Barra et al., 2023). Additionally, high institutional quality fosters trust and encourages both industrialisation and export growth (Dubey et al., 2023). The relationship between governance, accountability, and reindustrialisation is vital, as transparent governance reduces corruption and increases public trust, attracting foreign investment (Bandini et al., 2023). Overall, these findings illustrate that robust institutional frameworks significantly influence the reindustrialisation-export performance nexus, necessitating further investigation into the specific mechanisms at play.

Critique of the Existing Literature Relevant to the Study

The existing literature provides valuable insights into the factors influencing export performance, including internal organisational factors and macroeconomic conditions. It is evident that distinct organisational capabilities, such as technological innovation, market research, and quality management, significantly enhance export outcomes. However, the relationship between manufacturing capabilities and export success can vary by context, and export market orientation is crucial for enhanced export performance. Macroeconomic conditions, such as economic growth, exchange rates, and inflation, also play a significant role in export performance. While higher GDP growth, stable exchange rates, and low inflation support increased export capacity and demand, persistent inflation and exchange rate fluctuations can have adverse effects. The moderating effect of institutional quality on the reindustrialisation-export performance nexus highlights the importance of governance structures, particularly the rule of law and government effectiveness, in fostering a conducive environment for trade and industrial growth. However, there is a need for further research to explore the specific mechanisms at play and the contextual nuances of these relationships.

Methods

Research Philosophy

This study adopted a positivist research philosophy. The adoption if the positivist philosophy was informed by the fact that it enables objective measurement and statistical testing of hypothesised relationships between organisational, economic, and institutional variables. By using structured questionnaires to gather numerical data, positivism supported the deductive approach needed for regression and modelling techniques. This philosophy also fostered methodological rigor and allowed findings from the sampled exporters to be generalised to the wider Zimbabwean manufacturing sector. Thus, positivism was selected to ensure objectivity, replicability, and clear causal inferences.

Research Design and Target Population

This study adopted a quantitative survey research design focused on the Zimbabwean manufacturing sector, specifically targeting exporting organisations. The target population comprised 931 active manufacturing product exporting organisations. The sample was drawn from senior export managers and finance officials, ensuring that the data collected reflected the perspectives of individuals directly involved in export operations. This focus allowed for a detailed examination of the relationships between various internal and external factors influencing reindustrialisation and export performance.

Sampling Frame and Sample Size

The sampling frame included senior management, export managers, and finance officials from the identified exporting organisations, categorised by product group. A stratified random sampling technique was employed to ensure adequate representation across different export product categories. The sample size was calculated using Cochran’s formula, resulting in a target of 384 respondents. This sample size was deemed sufficient to provide robust data for statistical analysis, facilitating generalisation of the findings to the broader population of Zimbabwean exporters.

Data Collection, Processing and Analysis Procedure

Data collection involved the administration of structured questionnaires designed with a 5 -point Likert scale. This approach was selected to quantify respondents' attitudes and perceptions regarding various factors influencing export performance. The questionnaires were distributed electronically to enhance efficiency and ensure timely responses. The structured format of the questionnaire allowed for the collection of consistent data across all respondents, making it easier to analyse the relationships between variables systematically.

Data processing was conducted by systematically entering quantitative responses into statistical software (SPSS). Descriptive statistics were utilised to summarise the main features of the data, providing an overview of respondent demographics and key variables related to export performance. The analysis included measures of central tendency and variability, which helped identify trends within the data. For further analysis, inferential statistical techniques such as multiple linear regression were employed to examine the relationships between internal organisational factors, macroeconomic conditions, and export performance. The use of these statistical methods aimed to provide insights into the significant predictors of export performance and to uncover any underlying patterns.

Results obtained

Descriptive Statistical Analysis

The descriptive statistics are given in Table 1 as they relate to the perceptions of the respondents to the role of the independent variables on export performance within the Zimbabwean context.

Table 1: *Descriptive Statistics*

Variables	Mean		Std. Dev
	Statistic	Std. Error	Statistic
Internal Organisational Factors (IOF)	4.34	.018	.292
Macroeconomic Conditions (MEC)	4.18	.023	.368
Institutional Quality (IQ)	1.68	.018	.292
Export Performance (ExPerf)	3.90	.016	.256

The descriptive statistics given in Table 1 reveal key insights into respondents' perceptions regarding factors influencing export performance. Internal Organisational Factors (IOF) had a mean of 4.34 (SD = 0.292, SE = 0.018), indicating strong agreement on their positive impact on export success and a consensus on their importance. Macroeconomic Conditions (MEC) scored a mean of 4.18 (SD = 0.368, SE = 0.023), reflecting a generally favorable view of how economic stability benefits exports, though the moderate standard deviation suggests some variability in experiences. Conversely, Institutional Quality (IQ) had a low mean of 1.68 (SD = 0.292, SE = 0.018), highlighting concerns about the effectiveness of institutions in supporting export activities, with respondents agreeing on the need for improvements. Export Performance (ExPerf) averaged 3.90 (SD = 0.256, SE = 0.016), indicating a positive perception of overall export outcomes, but also suggesting that some sectors may face greater challenges, underscoring the need for targeted interventions to enhance competitiveness.

Before conducting inferential statistical analysis, several assumptions of multiple linear regression were assessed. Specifically, tests for normality of residuals, multicollinearity among independent variables, and autocorrelation were performed to ensure the validity and reliability of the subsequent analysis.

Test for Normality

Normality testing assesses whether a dataset follows a normal distribution. This is key because many statistical tests assume normality; violating this assumption can lead to unreliable results. In this study, Kolmogorov-Smirnov and Shapiro-Wilk tests were employed to evaluate the normality of eight variables (IOF, MEC, IQ, and ExPerf). The findings are given in Table 2.

Table 2: *Results of the Kolmogorov-Smirnov and Shapiro-Wilk Tests*

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
IOF	.307	259	>0.05	.713	259	>0.05
MEC	.145	259	>0.05	.900	259	>0.05
IQ	.145	259	>0.05	.920	259	>0.05
ExPerf	.103	259	>0.05	.951	259	>0.05

a. Lilliefors Significance Correction

The results of the Kolmogorov-Smirnov and Shapiro-Wilk tests in Table 2, indicate that the distributions of Internal Organisational Factors (IOF), Macroeconomic Conditions (MEC), Institutional Quality (IQ), and Export Performance (ExPerf) do not significantly deviate from normality, as all significance values are greater than 0.05. Specifically, the Shapiro-Wilk statistics for each variable suggest that the residuals are normally distributed, which is essential for validating the assumptions of multiple linear regression.

Test for Autocorrelation

The Durbin Watson tests was used for the purposes of testing for autocorrelation and the findings are given in Table 3.

Table 3: *Results of the Durbin Watson Test*

Model	**Durbin-Watson**
1	1.783

The Durbin-Watson statistic is 1.783, which is within the acceptable range of 1.5 to 2.5 which signalled the absence of autocorrelation in the data.

Test for Multicollinearity

The study applied the Tolerance and VIF tests to assess the extent to which the data displayed multicollinearity. The findings in that regard are given in Table 4.

Table 4: *Results of the Tolerance and VIF Tests*

Model		Collinearity Statistics	
		Tolerance	**VIF**
	(Constant)		
1	IOF	.278	3.583
	MEC	.519	5.714

The Tolerance values for Internal Organisational Factors (IOF) and Macroeconomic Conditions (MEC) are 0.278 and 0.519, indicating no severe multicollinearity, as both exceed the 0.1 threshold. The corresponding VIF values of 3.583 for IOF and 5.714 for MEC are below 10, further confirming that multicollinearity is not a concern. Thus, multicollinearity results indicated minimal overlap among predictors, the independent variables are sufficiently uncorrelated, ensuring that the regression analysis will yield reliable estimates.

Examining the relationships factors

The study used the multiple linear regression analysis to examine the nature of the relationship between internal organisational factors, macroeconomic conditions and export performance. The structural equation modelling approach was used to examine the moderating effect of institutional quality on the reindustrialisation and export performance relationship. The findings from the multiple linear regression analysis are given in Table 5.

Table 5: *Multiple Linear regression Analysis Results*

Model	Variable	R^2	F/Sig	Unstandardized Coefficients (β)	Standardized Coefficients (Beta)	T-test, P-value
	Constant	0.724	335.972 / 0.000	1.668		17.302 / 0.000
1	IOF			0.300	0.433	6.968 / 0.000
	MEC			0.241	0.452	7.274 / 0.000

The findings from the multiple linear regression analysis (Table 5) reveals that both Internal Organisational Factors (IOF) and Macroeconomic Conditions (MEC) significantly contribute to explaining the variation in export performance in Zimbabwe, with an R^2 value of 0.724 indicating a robust model. The F-value (335.972) and the significance level ($p = 0.000$) of the overall model confirm its effectiveness in predicting export performance. The findings show that IOF ($\beta = 0.300$, $p = 0.000$) and MEC ($\beta = 0.241$, $p = 0.000$) have significant positive effects on export performance, suggesting that improvements in internal organisational practices and stable macroeconomic conditions are crucial for enhancing export competitiveness. The results from the SEM are given in Table 6.

Table 6: *Indirect and Total Effects (SEM)*

Effect Type	Estimate	Std. Error	z-value	p-value	Std. Latent Variable Effect	Std. Total Effect
Direct (ReInd → ExPerf)	0.582	0.022	26.059	<0.001	0.582	0.723
Indirect (ReInd → IV_IQ → ExPerf)	0.057	0.021	2.642	0.008	0.057	0.070
Total (ReInd → ExPerf)	0.639	0.030	20.948	<0.001	0.639	0.793
Proportion Mediated	0.088	0.031	2.876	0.004	0.088	0.088

The SEM analysis reveals significant direct and indirect effects of reindustrialisation on export performance in Zimbabwe. The direct effect of reindustrialisation on export performance (Estimate = 0.582, $p < 0.001$) is strong, indicating that increased reindustrialisation efforts are closely associated with improved export performance. Additionally, institutional quality significantly mediates this relationship, with an indirect effect (Estimate = 0.057, $p = 0.008$) and a total effect (Estimate = 0.639, $p < 0.001$) demonstrating its crucial role in enhancing export performance. The proportion mediated (Estimate = 0.088, $p = 0.004$) further underscores the importance of institutional quality in facilitating reindustrialisation and boosting export performance.

Discussion of study results

Relationship between Internal Organisational Factors and Export Performance

The multiple linear regression analysis reveals that Internal Organisational Factors (IOF) significantly contribute to explaining the variation in export performance in Zimbabwe, with an unstandardized coefficient (β) of 0.300 and a p-value of 0.000. This indicates that improvements in internal organisational practices, such as management efficiency, technological innovation, and operational effectiveness, are crucial for enhancing export competitiveness. In the context of Zimbabwe, where the manufacturing sector faces challenges like outdated equipment and rising production costs, these internal capabilities play a vital role in navigating international markets and achieving superior performance. These findings align with the literature, which highlights the positive impact of organisational capabilities on export success (Antonioli et al., 2022; Chen et al., 2021), underscoring the necessity for firms to cultivate unique resources to boost their export outcomes.

Relationship between Macroeconomic Conditions and Export Performance

The analysis also demonstrates that Macroeconomic Conditions (MEC) have a significant positive effect on export performance, with an unstandardized coefficient (β) of 0.241 and a p-value of 0.000. This suggests that stable macroeconomic conditions, such as economic growth, inflation control, and currency stability, are essential for enhancing export capacity and competitiveness. In Zimbabwe, where economic instability and hyperinflation have created a challenging business environment, ensuring stable macroeconomic conditions can provide a conducive environment for business operations and encourage export activities. The literature supports these findings, emphasizing the role of economic growth, exchange rates, and inflation in boosting export capacity and competitiveness (Oyetade et al., 2020; Hendrasto et al., 2023).

Moderating Effect of Institutional Quality

The SEM analysis reveals that institutional quality significantly moderates the relationship between reindustrialisation and export performance. The direct effect of reindustrialisation on export performance is strong, with an estimate of 0.582 and a p-value of less than 0.001, indicating that increased reindustrialisation efforts are closely associated with improved export performance. Furthermore, institutional quality demonstrates a significant indirect effect, with an estimate of 0.057 and a p-value of 0.008, highlighting its crucial role in enhancing export performance. In Zimbabwe, effective governance, legal certainty, and stable institutions are essential for fostering a supportive environment for reindustrialisation and export growth. The literature corroborates these findings, emphasizing the importance of governance structures, rule of law, and government effectiveness in enhancing export performance and facilitating reindustrialisation (Edeme & Mumuni, 2023; Androniceanu & Georgescu, 2023).

Proposing an Enhanced Extended Diamond Model

Based on the findings from this study where internal organisational factors (IOF) and macroeconomic conditions (MEC) each demonstrated significant, positive effects on export performance ($\beta\_IOF = 0.300$, $p < 0.001$; $\beta\_MEC = 0.241$, $p < 0.001$) and institutional quality (IQ) emerged as a significant moderator (indirect effect = 0.057, $p = 0.008$), it is clear that the traditional extended Diamond model must be augmented to capture these critical dimensions. As such, the model should explicitly incorporate IOF, which encompass firm-level capabilities such as technological innovation, quality management systems, and export market orientation. By embedding IOF as a distinct pillar, the model acknowledges that, in Zimbabwe's manufacturing sector, firms with robust internal systems and R&D capacity consistently outperform their peers in foreign markets. This addition aligns with Antonioli et al. (2022) and Rehman et al. (2020), who highlight the centrality of firm-specific resources and capabilities in driving export success.

In addition, the enhanced model must formally integrate MEC, specifically, indicators such as GDP growth, exchange-rate stability, and inflation control, as a core determinant of national-level competitiveness. In the context of Zimbabwe, the empirical results show that macroeconomic volatility (e.g., hyperinflation, erratic forex availability) can severely undermine export capacity, even when companies themselves are well managed. By incorporating MEC, the model captures the cyclical and structural economic fluctuations that affect cost of production, pricing strategies, and international demand. This extension is supported by Oyetade et al. (2020) and Hendrasto et al. (2023), who demonstrate that economies with stable macroeconomic environments provide a more predictable climate for exporters, thereby enhancing their ability to plan, invest, and compete abroad.

Institutional Quality (IQ), comprising rule of law, government effectiveness, and regulatory transparency should be positioned as a moderating layer that influences how both IOF and MEC translate into export outcomes. The current study's SEM results indicate that stronger governance and accountability mechanisms amplify the positive effects of reindustrialisation efforts on export performance (proportion mediated = 0.088, $p = 0.004$). This suggests that even with optimal internal and macroeconomic conditions, weak institutions can throttle export growth by increasing transaction costs, deterring foreign investment, and eroding stakeholder trust. Incorporating IQ into the model addresses critiques such as those by Tsai et al. (2021) and Chen (2023) that the original framework does not sufficiently account for institutional fragility in developing economies.

Therefore, by combining the original Diamond dimensions—factor conditions, demand conditions, related and supporting industries, firm strategy/structure/rivalry, government, and chance, with these three new elements (IOF, MEC, IQ), the proposed framework offers a holistic structure for analysing Zimbabwe's manufacturing competitiveness. Policymakers can use this enhanced model to diagnose specific bottlenecks: for instance, whether low export performance stems from inadequate firm capabilities, macroeconomic instability, or institutional weaknesses. Industry stakeholders can likewise identify targeted interventions such as strengthening R&D grants, stabilising fiscal and monetary policies, or reforming regulatory processes, that collectively foster a more resilient, export-oriented manufacturing sector.

As a way to show the proposed enhancements to the Porter's Diamond Model so that it is compatible as a model for export performance in volatile economies such as Zimbabwe, Figure 2 shows the original Porter's Extended diamond model

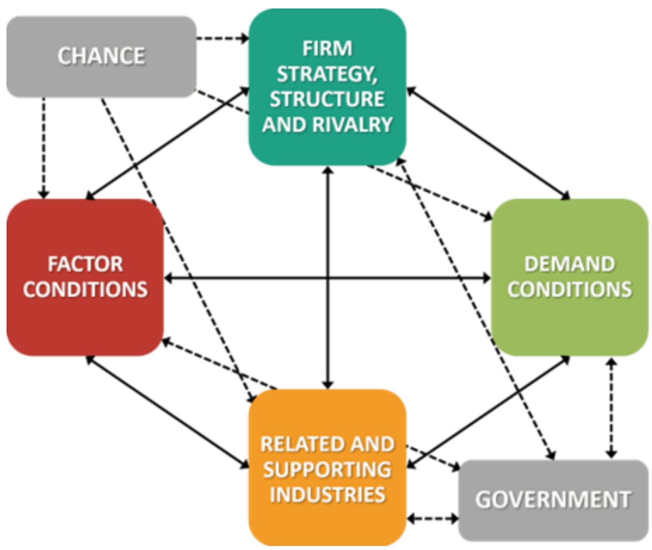

Figure 2: *Porter's Extended Diamond Model*

Source: Porter (1990:157)

Figure 3 is the proposed model, which takes into account and incorporates internal organisational factors, macroeconomic conditions and institutional quality (moderating variable) along with expert performance as the dependent variable.

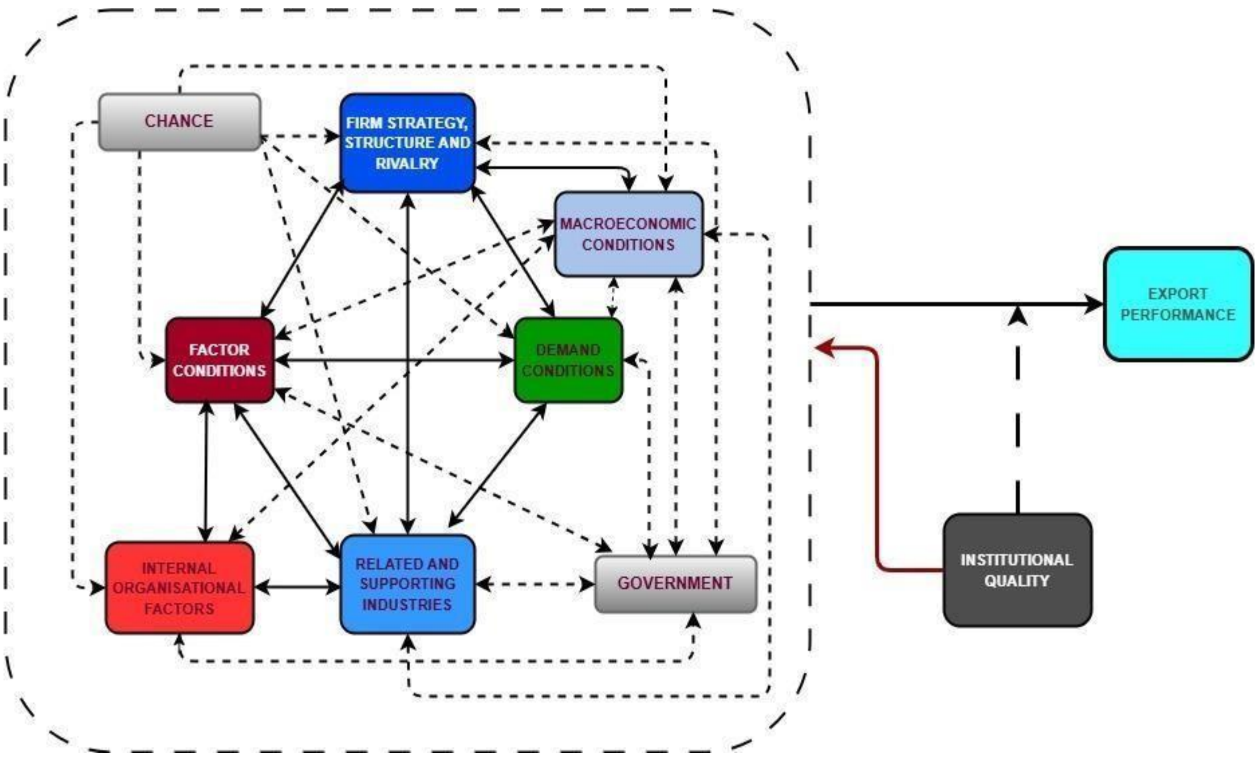

Figure 3: *Proposed Extended Diamond Model*

Conclusion

The study concluded that strong internal organisational capabilities are a key driver of Zimbabwean manufacturing firms' export success. This conclusion was informed by the finding that IOF had a significant positive effect on export performance ($\beta = 0.300$, $p < 0.001$). This implies that targeted investments in R&D, workforce skills, and market-oriented processes are crucial for building the firm-level competencies needed to compete abroad. The study further concluded that a stable macroeconomic environment is essential for sustaining export performance ($\beta = 0.241$, $p < 0.001$). The conclusion is supported by the finding that macroeconomic conditions, captured through inflation control, exchange-rate stability, and GDP growth, had a significant positive relationship with export outcomes. This means, therefore, that government policies aimed at maintaining price stability and predictable fiscal and monetary frameworks will directly enhance firms' ability to plan, price, and execute cross-border sales.

It was also concluded that institutional quality had a significant positive effect on reindustrialisation initiatives on export performance. This conclusion was informed by the finding that institutional quality mediated 8.8 % of the total effect of reindustrialisation on exports (indirect effect = 0.057, $p = 0.008$). This implies that without strong governance, streamlined regulations, and transparent policy implementation, even well-designed reindustrialisation strategies will yield suboptimal export gains. In the main, the study arrived at the conclusion that extending Porter's Diamond Model to include three weighted, measurable pillars, IOF, MEC, and IQ, provides a more predictive and diagnostic framework for Zimbabwe's manufacturing exports. This conclusion was informed by the finding that each of these dimensions made distinct, statistically significant contributions to export performance beyond the original Diamond factors, implying that policymakers can use the enhanced model to pinpoint specific firm-level, economic, or institutional bottlenecks and tailor interventions for sustainable reindustrialisation and export growth.

Recommendations

The following recommendations were made:

1. **Exporting manufacturers intensify investment in internal organisational capabilities:** The manufacturing exporters should develop and implement structured R&D programs, upskill employees through targeted training, and adopt market-oriented decision-making processes. Establish clear KPIs for innovation and export market penetration to track progress and ensure accountability at the firm level.
2. **Government maintain and enhance macroeconomic stability:** The government should empower the Reserve Bank of Zimbabwe to set and adhere to clear inflation-targeting guidelines and communicate these targets transparently to anchor public and investor expectations. Establish a two-tier foreign-exchange auction system that balances market-driven rates with sufficient reserves, and introduce periodic FX forward auctions for exporters to hedge currency risk. Implement a multi-year budget framework that caps non- priority spending, prioritises infrastructure and export-oriented subsidies, and regularly publishes debt sustainability analyses. Finally, create a ring-fenced Commodity stabilisation fund to save windfall surpluses in boom years and cushion export revenues during price downturns.
3. **Accelerate institutional reforms to improve governance and regulatory quality:** Establish a centralised, digital Export Facilitation Authority as a one-stop portal for all export-related permits, certifications, and customs clearances to reduce processing time s from weeks to days. Mandate Regulatory Impact Assessments (RIAs) for all new regulations, evaluating costs, benefits, and effects on business competitiveness, and publish the results online for stakeholder scrutiny. Fast-track amendments to the Commercial Courts Act to create specialised economic courts for export disputes and codify robust property-rights protections under an updated Investment Promotion Act. Roll out e- governance platforms for licensing and public procurement, paired with whistle-blower protections and periodic public audits, to deter rent-seeking and ensure that policy implementation matches legislative intent.
4. **Adopt and operationalise the enhanced Extended Diamond Model as a policy diagnostic tool:** Integrate the three weighted pillars, internal organisational factors, macroeconomic conditions, and institutional quality, using quantifiable indicators (R&D intensity, inflation rates, World Bank governance scores) to identify specific bottlenecks. Develop a user-friendly dashboard for policymakers that visually tracks each pillar's performance over time, enabling targeted interventions for sustainable manufacturing and export growth.
5. **Upgrade transport and logistics infrastructure to lower trade costs:** Invest in modernising key corridors (roads, railways, ports, and cold-chain facilities) to reduce transit times and spoilage for manufactured goods. Leverage public-private partnerships to finance and operate logistics hubs, and streamline customs clearance processes through digital manifests and pre-arrival risk assessments. This will directly cut export lead times and improve Zimbabwe's competitiveness in perishable and time-sensitive markets.
6. **Promote export diversification through market intelligence and trade promotion:** Establish a dedicated Export Market Intelligence Unit within the Ministry of Industry to

provide firms with real-time data on demand trends, regulatory requirements, and competitive landscapes in target markets. Organise regular trade missions, virtual buyer- seller meets, and negotiation of bilateral/regional trade agreements to open new corridors for Zimbabwean made goods. By broadening the country's export portfolio beyond traditional commodities, firms can mitigate price shocks and capture higher-value segments.

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Assessing the efficacy of internal fleet policies in the management of fleet within urban local authorities in Zimbabwe.

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Abstract

The rationale of this study is to assess the influence of fleet management policy on the management of vehicles in urban local authorities of Zimbabwe. The study was conducted within 4 urban local authorities in Harare Metropolitan Province of Zimbabwe. A mixed methods approach was adopted, accompanied with a stratified random sampling technique to collect data from a sample size of 347 respondents which was deemed using Raosoft sampling tool. The study collected data using questionnaire, which was distributed physically. Data analysis was done using SPSS version 20.1. The findings indicate that the inefficiency of fleet management policy negatively influences the efficiency of vehicle acquisition, maintenance, disposal and fuel management. This shows that the existence of a weak fleet management policy within local authorities results in high operational and maintenance costs, thereby compromising service delivery. The study concluded that fleet management policy in local authorities in Zimbabwe is not well-constructed, they fail to support effective management of fleet. Therefore, the study recommends establishing guidelines for continuous review of fleet management policies to support operational needs, cost-effective resource management, and efficient fleet performance evaluation.

Key words: Vehicle acquisition, maintenance, disposal, fuel management, fleet management policy, local authority.

Introduction

Local authorities, utilize a diverse range of vehicles and machinery that includes graders, refuse collection trucks, tractors, light vehicles and fire tenders that are all aimed at enhancing their operations. Therefore, effective management of vehicles is critical to ensure effective logistics within the diverse activities of local authorities. Globally, fleet policies are acknowledged as essential mechanisms for attaining efficient fleet management (Mehmood, 2021; Akkartal & Aras, 2021). In Australia, local authorities have developed comprehensive fleet management guidelines for overseeing the entire administration of vehicles (Dwyer et al., 2021). Similarly, countries such as Namibia and South Africa have established fleet management guidelines that emphasize maximizing management of fleet, lowering costs, and assuring high-quality service delivery (Nautwima & Asa, 2022; Machaba & Ndou, 2024). Essentially, these policies set benchmarks for effective fleet management, thereby minimizing fleet downtime and ensuring effective resource utilization. In Zimbabwe, local authorities have fleet management policies in place; however, there is an absence of studies that have examined the relevance and efficiency of these policies to improve fleet management.

Several studies conducted on fleet management within the context of local authorities have focused on aspects such as poor maintenance, absence of fleet technologies, driver management, inadequate fleet resources, route optimization, green fleets, and vehicle utilization (Rashid & Lugaric, 2018; Bentley & Hodge, 2020; Munuhwa et al., 2020; Machaba & Ndou, 2024). However, there is a lack of studies that have revealed how fleet management policies affect the effective management of vehicles within local authorities in Zimbabwe. This results in a significant research gap. Furthermore, this research gap has triggered interest in exploring whether fleet management policies can enhance operational efficiency, minimize maintenance costs, and effectively utilize resources. Local authorities in Zimbabwe have a service delivery obligation that emanates from constitutional and statutory prerogatives, emphasizing efficient and effective service delivery for service users. According to Chiparo et al. (2022), having a functional fleet is a fundamental approach to enhancing effective service delivery. However, despite the fundamental role of fleet management, towards enhancing operational efficiency, most local authorities in Zimbabwe face numerous fleet management challenges which include lack of resources, use of aged vehicles, poor maintenance and management (Marumahoko et al., 2020; Munuhwa et al., 2020).

Poor fleet management in Zimbabwe's local authorities has contributed to challenges such as excessive fuel costs, numerous breakdowns, increased maintenance costs, and inefficient vehicle usage, which compromise effective fleet management. However, the increasing number of challenges associated with poor fleet management activities highlights the importance of a more robust internal fleet management policy to address these challenges. Fleet management policies govern the acquisition, maintenance, fuel management, and disposal of vehicles in local authorities. In light of this backdrop, this study is essential as it fills the knowledge gap and provides insights pertaining to the process of decision-making. The study was guided by the following research objectives: (1) to analyse the extent to which fleet management policy influence vehicle acquisition, (2) to assess the efficacy of fleet management policy effects on vehicle maintenance, (3) to evaluate the effect of fleet management policy on vehicle disposal and, (4) to understand the influence of fleet management policy on fuel management.

Literature review

Theoretical framework

The theories underpinning this study include the resource-based view of contingency theory.

Resource-Based View Theory

The Resource Based View (RBV) theory emphasizes the strategic utilization of organizational resources and competencies (Zhang et al., 2021; Costa et al., 2024). In the context of fleet management, this approach underscores the relevance of the internal resources (assets) and capacities of local authorities. Therefore, RBV theory enhances the effectiveness of operations, lowers expenses, and provides improved public services through the proper management of fleet resources (Uyanık, 2023). The fleet policies formulated by local authorities are driven by the RBV concept, which emphasizes the evaluation of the adequacy of internal resources, including fleet size and maintenance procedures. RBV theory assists organizations in effectively utilizing resources to accomplish organizational objectives, thereby resulting in enhanced fleet (Sabourin, 2020). Furthermore, RBV theory provides a lens upon which local authorities can identify the key areas of how resources can be fully utilized to promote efficient fleet management.

Contingency Theory

Contingency theory stresses that good management strategies are supported by policies within an organization (Nassou & Bennani, 2024; Zou, 2024). In the context of this study, the success of the internal fleet policy varies depending on aspects such as fleet size, organizational culture, and available resources. The rationale for adopting contingency theory within the study was that it enabled local authorities to recognize that varying fleet management strategies may be required depending on the unique conditions of the local authority (Liu, 2020; Abu et al., 2024). Similarly, contingency theory promotes policy flexibility and adaptability by considering the particular difficulties and possibilities faced by each local authority. Therefore, in the context of local authorities, contingency theory is essential for evaluating the contextual elements that effect fleet management, such as financial limitations and the state of the vehicles and equipment.

Fleet management policy

A fleet management policy is defined by Eftekhar and Wassenhove (2016) as the establishment of a set of principles and processes for managing, operating, and maintaining a company's fleet. Internal policies provide a standardized framework for procurement, maintenance, and disposal of fleet assets, resulting in improved accountability, cost savings, and efficient service delivery (Stokić et al., 2020; Mehmood, 2021) . In this regard, performance evaluation is a key aspect that assesses the effectiveness of a policy in accomplishing the desired outcome of ensuring efficiency in fleet management.

According to Boutueil (2016), a good fleet management policy comprises elements such as clear guidelines on acquisition, fuel management, driver management, maintenance, asset disposal, and usage. Therefore, an efficient fleet management policy is founded on the principles of uniformity and consistency. Mehmood (2021) stated that fleet management policies should also incorporate the use of technology to enhance efficiency and promote accountability and transparency in fleet operations. Rojas et al. (2020) also stated that a good policy should have measurable objectives, tasks, and targets that drive continuous improvement in fleet management. In addition, a strong fleet management policy is essential to ensure efficient and effective management of vehicles within an organization (Kachilala & Dumba, 2022). It sets out clear guidelines and procedures for the acquisition, maintenance, usage, and disposal of vehicles, ensuring compliance with regulations and promoting safety. In relation to the RBV theory, a strong and adopted fleet management is essential as it helps to optimize resource utilization, reduce costs, and improve service delivery (Mirheli et al., 2020; Costa et al., 2024).

In contrast to a good policy, Akkartal and Aras (2021) denote that a bad fleet management policy lacks clear guidelines on key fleet management activities, such as failure to incorporate technological advancements, leading to operational inefficiencies. In addition, a bad policy lacks measurable objectives and targets, which can hinder the achievement of organizational goals and service delivery objectives (Aflabo et al., 2020). When there is a weak internal fleet management policy in place, organizations may face challenges such as high maintenance costs, inefficient vehicle usage, safety issues, and non-compliance with regulations (Ampiah, 2018). Romero et al. (2024) concluded that whether good or bad, the formulation and implementation of a policy within an organization is also centred on the political will of management.

Vehicle acquisition

According to Stokic et al. (2018), vehicle acquisition involves the practice of obtaining vehicles for business purposes. Effective vehicle acquisition is not merely the procurement of vehicles, but rather a process in which the organization conducts rigorous research concerning the available acquisition options, such as outright purchase, leasing, and hire purchase (Rashid & Lugaric, 2018). In the context of fleet management, vehicle acquisition is the first critical stage within an organization, as it encompasses the acquisition of vehicles, which enhances smooth operation (Kachilala & Dumba, 2022). The vehicle acquisition process considers various factors, such as calculating the total cost of ownership, assessing vehicle specifications and needs, and negotiating better prices with vehicle dealers (Stokic et al., 2020). Taking into consideration all these factors is crucial for organizations to make ideal decisions that are suitable to organizational objectives and operations. According to Bentley and Hodge (2020), fleet acquisition involves right-sizing, a concept that ensures that the organization owns or has an optimum fleet size and composition. Right fleet sizing enables cost minimization while maximizing efficiency. In essence, right fleet sizing strives to attain an optimal balance between possessing sufficient vehicles to fulfil operational needs while minimizing the extra capacity that goes underused.

Within the framework of RBV theory, efficient vehicle procurement corresponds to the organization's internal resources and competencies. In this respect, local authorities can strengthen their operations and enhance the provision of service delivery by procuring different types of vehicles that fulfil their unique fleet requirements. Akkartal and Aras (2021) state that vehicle acquisition is important in organizations, as it ensures that the organization remains competitive. This is achieved through the procurement of modern vehicles, such as electric and hybrid vehicles, which lowers operational costs compared to conventional diesel or petrol -powered vehicles (Bentley & Hodge, 2020). Furthermore, this is supported by contingency theory, which underscores the necessity for businesses to modify their vehicle acquisition approaches in response to evolving operating environment (Nassou & Bennani,2024). Eventually, organizations must consistently assess and enhance their vehicle acquisition strategies to guarantee sustained success in successful fleet management.

Vehicle maintenance

Vehicle maintenance, as defined by Gackowiec (2019), as the routine tasks performed to guarantee the efficient functionality, safety, and increased lifespan of vehicles. Rashid and Lugaric (2018) concur that the concept of vehicle maintenance relates to the upkeep procedures that organizations undertake to guarantee the durability and functional effectiveness of their vehicles. According to Imbuga and Guyo (2018), vehicle maintenance actions involve performing routine upkeep procedures, such as oil and filter changes, inspections, and promptly resolving any kind of breakdown. Similarly, Chiparo et al. (2022) stated that vehicle maintenance is critical in fleet management because it reduces downtime, lowers operational costs, and ensures the safety of vehicle users. Proper vehicle maintenance is critical for firms because it has immediate effects on fleet management. Regular maintenance helps minimize vehicle breakdowns and unplanned repairs, thereby reducing the risk of operational disruption. Key aspects such as regular inspections, timely servicing, the use of genuine components, staff training on appropriate maintenance actions, and comprehensive documentation of maintenance records are essential elements of an ideal vehicle approach (Ampiah, 2018; Stokic et al., 2018; Castillo & Parlikad, 2024). Furthermore, through proactive vehicle maintenance, companies can increase fleet longevity, maximize fuel economy, and guarantee adherence to safety and environmental standards.

One of the most significant barriers to providing quality and efficient services is the high cost of vehicle maintenance. According to Redmer (2020), when fleet size increases, maintenance expenses also increase. Similarly, this notion is also applicable in the context of local authorities that have a huge fleet size and experience a high financial and logistical burden in keeping the fleet in good working conditions. Vehicle maintenance helps organizations improve operational efficiency, customer satisfaction, and reliability by maintaining their fleet of vehicles under excellent working conditions (Vujanovic et al., 2017; Sa-Nga-Ngam et al., 2024). In addition, the implementation of rigorous vehicle maintenance plans helps organizations minimize maintenance costs and enhance responsiveness to service delivery needs (Aflabo et al., 2020). On the other hand, contingency theory highlights the importance of adapting organizations' maintenance procedures to shifting circumstances and external influences (Akkartal & Aras, 2021). This may include modifying the maintenance plans in response to vehicle usage, environmental circumstances, and technological improvements. Therefore, investing in predictive maintenance technologies to monitor vehicle performance and plan maintenance is crucial to ensure proactive fleet management.

Vehicle disposal

Munuhwa et al. (2020) define vehicle disposal as the manner in which organizations get rid of vehicles that are no longer functional or economically viable. The goal of vehicle disposal is to ensure that organizations continually maintain functional and efficient vehicles that support the operations of the organization (Rashid & Lugaric, 2018). Different methods can be utilized by organizations to dispose of their vehicles, including auctioning, selling, trade ins, donations, and destruction (Kuznetsova et al., 2021). In line with RBV theory, vehicle disposal is an important internal capability that can influence fleet management by disposing vehicles at the appropriate time, thereby acquiring newer and better-performing vehicles. It assists organizations in optimizing their fleet resources, lowering operational expenses, and maintaining up-to-date and dependable vehicles (Kachilala & Dumba, 2022).

Disposing non-functional and aged vehicles assists organizations in saving money on avoidable costs related to repairs, maintenance, operations, and fuel (Stokic at al., 2018). Usually, older vehicles are associated with higher maintenance costs and frequent breakdowns, all of which may negatively affect their operational effectiveness (Munuhwa et al., 2020). Contingency theory acknowledges that vehicle disposal policies should constantly be reviewed and adjusted in response to changing operating conditions, such as technological developments and legislative changes. Furthermore, vehicle disposal enables businesses to upgrade their vehicles while benefitting from technological advances (Redmer, 2020; Stokic et al., 2020). Eventually, replacing outdated vehicles with more fuel-efficient vehicles improves operational efficiency within the organization.

Fuel management

Fuel management refers to the tactics and procedures used to manage fuel usage for the entire fleet of vehicles (Kanyepe, 2023). It encompasses aspects that ensure tracking and controlling fuel costs, improving fuel efficiency, and developing methods for effective fuel usage. Furthermore, for organizations that own and operate vehicles, efficient fuel management is essential because it lowers the operating costs. According to Rashid and Lugaric (2018), fuel cost is one of the highest costs within fleet management, accounting for approximately 20 to 30% of fleet management cost. Although fuel efficiency is influenced by different factors such as vehicle type, maintenance practices, and driver behaviour, Jayapal et al. (2023) postulated that effective fleet management strives to continuously enhance fuel efficiency, thereby reducing operational costs. The implementation of measures such as effective route optimization, routine vehicle maintenance, driver training, and installing fuel monitoring devices is paramount to effectively minimize and monitor fuel usage (Zhang et al., 2021; Tanasuica & Román, 2024). In the context of RBV theory, effective management of fuel resources enhances operational efficiency (Aflabo et al., 2020). Therefore, fuel efficiency and consumption are crucial aspects that drive fleet management efficiency.

Hypotheses development

A study conducted by Boutueil (2016) concluded that strategies adopted for vehicle acquisition are essential for enhancing effective fleet management. In addition, Stokic et al. (2020) concur that the efficient procurement of vehicles has a significant impact on fleet management by efficiently managing maintenance related costs. Chiparo et al. (2022), in their study of state-owned enterprises in Zimbabwe, revealed that fleet management policies significantly influence the timely acquisition of vehicles. Based on the empirical evidence provided above, this study hypothesizes that:

H_1. A well-constructed fleet management policy positively influences vehicle acquisition processes.

A study by Sa-Nga-Ngam et al. (2024) revealed that fleet management policy has an influence on vehicle maintenance by enabling cost effective operations and improved service delivery. Furthermore, Vujanovic et al. (2017) highlighted the importance of linkages between fleet management policy implementation and vehicle maintenance outcomes. The study further points out that integrating maintenance activities and policy objectives results in an increased vehicle lifespan and availability. In addition, Imbuga and Guyo (2018) concluded that there is a positive relationship between fleet management policy and the effectiveness of vehicle maintenance activities. A study by Castillo and Parlikad (2024) showed that utilizing a combination of preventive and predictive vehicle maintenance strategies within the fleet management policy has an influence towards, reducing maintenance costs, resource allocation, and improve vehicle availability. Therefore, this study hypothesized that:

H_2. A well-constructed fleet management policy positively influences vehicle maintenance.

A study conducted by Woody et al. (2024) showed that fleet management policy has a significant influence on the process of vehicle disposal. The study further suggests that fleet management policy shape decision-making and enhance effective fleet management by establishing optimum disposal timeframes. Similarly, Marin and Zobolin (2020) concur that fleet management policy influences the prompt disposal of vehicles, enabling the efficient replacement of older vehicle models with newer efficient models. Boutueil (2016) states that fleet management policy is essential in improving operational efficiency by streamlining vehicle disposal procedures, developing clear guidelines, and simplifying decision-making. Munuhwa et al. (2020) agree that there is a need to determine the optimal disposal time for vehicles to enhance the effective management of vehicles. In addition, a study conducted in Russia by Kuznetsova et al. (2021) highlighted that organizational policies are key for establishing a uniform disposal system for vehicles that are no longer operational. Based on the empirical literature, this study hypothesizes that:

H_3. A well-constructed fleet management policy has a positive influence on vehicle disposal processes.

A study conducted by Pašagić et al. (2020) stated the importance of fleet management policy for effective fuel management. This study further states that incorporating technology results in improved resource allocation and enhances decision making. Zhang et al. (2021) underscored the need to utilize technology to promoting effective fuel management. Similarly, Petrović and Vujanovic (2024) support the notion that the use of advanced technology in managing fuel results in fuel related cost savings. A study by Munahar et al. (2023) pointed out that establishing clear policy objectives for fuel management influences the management of fuel. In this respect, the study hypothesized that:

H_4. A well-constructed fleet management policy has a positive effect on fuel management.

Methodology

This study adopted a pragmatic research philosophy that entails a mixed research approach that encompasses practical assessments pertaining to what works best in addressing the research problem. Pragmatic philosophy provides a comprehensive approach that allows researchers to successfully tackle the study problem (Rai & Lama, 2020). Pragmatism has also provided researchers with extensive knowledge regarding the effectiveness of fleet management policy in managing vehicles within local authorities. The study utilized a mixed methods approach to gain a comprehensive understanding of the subject matter through the integration of qualitative and quantitative data. In essence, the mixed method makes it easier to triangulate data, offering a variety of perspectives and statistical information to the study findings, which increases the validity and reliability of the research findings (Hafsa, 2019; Sharma et al., 2023).

A cross-sectional survey design was utilized in this study, and the target population comprised 3500 employees from 4 urban local authorities within Harare Metropolitan Province of Zimbabwe (National Emploment Council, 2022). A cross-sectional study approach was chosen because it enables researchers to gather data from a broad range of respondents, thereby obtaining valuable insights (Zangirolami-Raimundo et al., 2018). Similarly, a cross-sectional survey research design provided an overview of the state of fleet management policies within local authorities in Zimbabwe.

A sample size of 347 participants was determined using the Raosoft sample size calculator. The online Raosoft sample size calculator was utilized in determining the sample size because of its simplicity in calculating the sample size (Althubaiti, 2022). This study utilized a stratified random sampling technique to select participants from 4 urban local authorities in Zimbabwe. According to Noor et al. (2023), adopting the stratified random sampling technique in this study ensures the equitable selection of participants from the intended target population, enhancing the validity and reliability of the study. A questionnaire, in conjunction with a desk review, were used in this study to collect quantitative and qualitative data. Using a questionnaire allowed the researchers to collect data in a cost effective manner, easier data quantification, providing standardized responses, and enabling collection of huge amounts of data over a short time frame (Dorneles & Mathias, 2022; Taherdoost, 2022; Ranganathan & Caduff, 2023). The questionnaire was distributed and collected physically from October 2024 to November 2024 giving the participants time to complete the questions at their own convenience.

The study utilized a structured Likert questionnaire consisting of questions with responses ranging from 1 (strongly disagree) to 5 (strongly agree), to collect quantitative data. The design and development of the questionnaire items were guided by the research objectives and literature. The questionnaire comprised five sections, as shown in Table 1, which included Fleet Management Policy (FMP), Vehicle Acquisition (VA), Vehicle Maintenance (VM), Vehicle Disposal (VD), and Fuel Management (FM). The study ensured reliability using Cronbach's alpha reliability test, which captured all study variables and was within the acceptable parameters of Cronbach's alpha. On the other hand, to ensure validity of the questionnaire the researchers conducted a pilot test, upon which the participant's feedback was used as basis for refining and validating the questionnaire. To safeguard the confidentiality and anonymity of the participants, a written cover letter which sought informed consent was attached to the questionnaire. By so doing this the study guaranteed the privacy of data collected from participants and, this enabled the participants to participate voluntarily.

Furthermore, the study gathered qualitative data through desktop reviews, which involved a comprehensive analysis of the existing literature, reports, and policies related to fleet management. This desktop review allowed for a detailed exploration of relevant scholarly articles, government documents, and best practices from other jurisdictions (Temitope et al., 2023). The desktop review allowed researchers to access a wide range of sources swiftly and effectively, forming the basis for comprehending the current condition of fleet management in Zimbabwe's local authorities. Therefore, desk review was utilized in this study to supplement and complement the quantitative data. To ensure the reliability of desktop reviews, researchers conducted a systematic evaluation of data sources through data cross referencing, thereby ensuring credibility (Reda et al., 2023). Validity was ensured by employing a rigorous technique to critically scrutinize the accuracy and applicability of the gathered information.

Findings and discussions

This section presents the finding and discussion of the study.

Fleet management variables

Table 1 shows questionnaire statement comprising of five study variables: internal fleet management policy, vehicle acquisition, vehicle maintenance, vehicle disposal and vehicle disposal.

Table 1. Questionnaire statement

Internal Fleet Management Policy	
FMP_1	Fleet management policy has clear key performance indicator to measure fleet performance
FMP_2	There are clear communication mechanisms that support efficient management of fleet
FMP_3	The policy promotes cost effective management of fleet resources
FMP_4	The policy is effective in preventing and mitigating fleet management risks

Vehicle Acquisition	
VA_1	There are clearly defined vehicle acquisition procedures
VA_2	Local authority complies to the Public Procurement and Disposal Act when procuring vehicles
VA_3	Vehicle acquisition is in alignment with local authorities' operational needs
Vehicle Maintenance	
VM_1	Maintenance procedures are clearly laid down
VM_2	There is consistency regarding maintenance procedures
VM_3	There is clear laid down timelines for repairs and routine maintenance
Vehicle Disposal	
VD_1	Vehicle disposal policy is transparent in disposing vehicles
VD_2	There is consistence regarding to the vehicle disposal methods
VD_3	Vehicle disposal is performed at the right time
VD_4	The local authority follows the recommended vehicle disposal guidelines established by the Government
Fuel Management	
FM_1	Fuel procurement processes are in alignment with government regulations
FM_2	The policy has set clear guidelines to prevent fuel misuse or theft
FM_3	Local authority is efficient in monitoring of fuel usage and consumption
FM_4	There is clear procedure for fuel allocation

Source: Authors (2025).

Data Validation

Table 2 shows the reliability results of Cronbach's alpha values ranging from .789 to .898 for the five variables, that shows that the responses across the set of questions were consistent. The study findings are in line with Ranganathan and Caduff (2023), who states that an acceptable reliability score should be above 0.7.

Table 2. Reliability statistics

Variable	Cronbach Alpha items	Number of Items
Internal Fleet Management Policy	.887	4
Vehicle Acquisition	.801	3
Vehicle Maintenance	.898	3
Vehicle Disposal	.799	4
Fuel Management	.789	4

Source: Authors (2025).

Convergent validity test results

The convergent validity test findings in table 3 reveal that all items within each construct had adequate standard factor loadings (varying from 0.7467 to 0.8976). This confirms that the constructs being measured were highly related to their intended construct, as supported by (Taherdoost, 2022). In this regard, reliable measurements enhanced the credibility of the study, enabling more thorough analysis and insightful conclusions.

Table 3 Convergent validity

Construct	Item	Standard factor Loading	Individual Item reliability	Cronbach's Alpha	Composite reliability
Internal Fleet Management Policy	FMP_1	0.8113	0.887	0.832	0.790
	FMP_2	0.7913	0.741		
	FMP_3	0.8834	0.800		
	FMP_4	0.8960	0,786		
Vehicle Acquisition	VA_1	0.7564	0.811	0.798	0.811
	VA_2	0.7984	0.822		
	VA_3	0.8400	0,821		
Vehicle Maintenance	VM_1	0.7964	0.835	0.812	0.820
	VM_2	0.8654	0.798		
	VM_3	0.8123	0.790		
Vehicle Disposal	VD_1	0.7659	0.860	0.790	0.810
	VD_2	0.7900	0.832		
	VD_3	0.8189	0.799		
	VD_4	0.7467	0.856		
Fuel Management	FM_1	0.8342	0.801	0.823	0.797
	FM_2	0.8976	0.790		
	FM_3	0.7808	0.793		
	FM_4	0.8970	0.823		

Source: Authors (2025).

Descriptive statistic summary

Table 4 shows the descriptive statistics that summarize the findings related to the research objectives.

Table 4. Descriptive statistics

	N	Mean	Std. Deviation
FMP_1	347	1.583	.925
FMP_2	347	1.783	.993
FMP_3	347	2.033	1.134
FMP_4	347	1.816	1.214
VA_1	347	2.116	1.366
VA_2	347	4.416	1.046
VA_3	347	2.466	1.431
VM_1	347	1.983	1.127
VM_2	347	1.700	1.197
VM_3	347	2.033	1.206
VD_1	347	2.783	1.462
VD_2	347	1.733	1.006
VD_3	347	1.600	1.304
VD_4	347	1.533	.503
FM_1	347	2.183	.892
FM_2	347	2.783	1.485
FM_3	347	1.000	.000
FM_4	347	3.550	1.333
Valid N (listwise)	347		

Source: Authors (2025).

Internal fleet management policy

Table 4 show findings regarding the efficiency of internal fleet management policy revealed mixed results (FMP1 to FMP4). ***FMP1*** measured the extend upon fleet management policy had a clear key performance indicator to measure fleet performance recorded a low, with a mean score of 1.583. Similarly, ***FMP2*** assessed the communication mechanisms supporting efficient fleet management received a moderate rating, with a mean score of 1.783. ***FMP3*** assessed how fleet policy promotes cost-effective resources management, recorded a low a mean score of 1.816. Also, the effectiveness of the policy in preventing and mitigating fleet management risks ***FMP4*** scored a low mean of 2.033.

The findings from Table 4 showed substantial shortcomings pertaining the internal fleet management policy of local authorities in Zimbabwe. This is evidenced particularly in areas such as establishing performance indicators, promoting cost-effective resource management, and addressing fleet management risks. The study findings resonate with the studies by Redmer (2020) and Zhang, et al (2021), which emphasized the importance of establishing clear fleet metrics which enhances operational efficiency. The findings also portray an indication of higher operational costs in the management of fleet as a result of the presence of poor fleet management policy with local authorities.

Vehicle acquisition

The findings in table 4 assess the effect of the fleet management policy on vehicle acquisition. The descriptive statistics summary shows the mean scores for the three aspects of vehicle acquisition (VA1, VA2, and VA3). ***VA1*** measured the clarity of the acquisition process and recorded a low mean of 2.116, whereas ***VA2*** assessed the compliance of local authorities with the Procurement and Disposal Act when procuring vehicles and scored a high mean of 4.416. In contrast, ***VA3*** assessed the alignment of the acquisition process to operational needs and recorded a low mean of 2.466.

The findings of VA1 and VA3 showed a low mean, representing a lack of clarity on the acquisition process and the misalignment in identifying the specific operations needs that are supported by the vehicle acquisition process. The lack of clarity in the acquisition process results in a misalignment of the operational needs, which leads to a mismatch in the right fleet sizing. These results are supported by Bentley and Hodge (2020), who emphasize the need for the right fleet sizing within local authorities. Akkartal and Aras (2021) supported the importance of clear acquisition guidelines that enable sustainable fleet management. On the other hand, a high mean for ***VA2*** implies that local authorities in Zimbabwe comply with the Procurement and Disposal Act when procuring vehicles. These findings resonate with those of Chiparo et al. (2022), who showed that state-owned enterprises in Zimbabwe comply with the legislation governing public procurement.

Vehicle maintenance

Table 4 presents the findings related to the effectiveness of the fleet management policy on vehicle maintenance. The descriptive statistics revealed ***VM1*** which assessed the clarity of maintenance procedures, scored a low mean of 1.983, while ***VM2*** evaluated the consistency of maintenance procedures, and ***VM3*** explored the timeframe responsiveness undertaken in carrying out maintenance tasks and recorded a low mean of 2.033. The low means for aspects of vehicle maintenance, such as clarity ***VM1***, consistency ***VM2*** and responsiveness ***VM3***, revealed major shortcomings concerning how local authorities handle their vehicle maintenance actions.

The overall findings indicate that, while fleet management policy has created maintenance processes, there are challenges in maintaining uniformity and providing defined schedules for maintenance tasks. The study findings are in line with the findings of Munuhwa et al. (2020), which state that lack of clear maintenance is associated with drawbacks such as increased chances of vehicle breakdowns and downtime. In addition, the findings revealed inconsistencies in the execution of maintenance actions, which affect the functionality of the vehicle. Gackowiec (2019) argued that rigid maintenance strategies negatively affect operational efficiency and recommended an adaptive maintenance approach.

These poor results have negative implications for local authorities, as they can lead to increased vehicle downtime, reduced operational efficiency, higher maintenance costs, and decreased service delivery quality. For example, a lack of clarity in maintenance procedures may result in misunderstandings among maintenance staff, leading to inefficiencies and potentially costly errors during repair. Consistency issues can also lead to varying maintenance standards across the fleet, impacting vehicle performance and longevity. Inadequate responsiveness in carrying out maintenance tasks can prolong vehicle downtime, affect service delivery timelines, and compromise public safety. Roberts et al. (2018) and Thompson et al. (2020) support the importance of clear and consistent maintenance procedures with timely responsiveness in fleet management practices to ensure cost efficiency and operational effectiveness. Therefore, it is essential for local authorities in Zimbabwe to address these deficiencies promptly through improved policies, training, and monitoring to enhance vehicle maintenance practices and ultimately optimize fleet management operations.

Vehicle disposal

The findings in table 4 assess the effect of the fleet management policy on vehicle disposal. The descriptive statistics summary shows the mean scores of the four aspects of vehicle acquisition (VD, VD2, VD3, and VD4). ***VD1*** assessed the transparency of the disposal policy and scored a low mean of 2.783, whereas ***VD2*** had a low mean of 1.733 in measuring the consistency of the vehicle disposal methods used. In addition, ***VD3*** assessed disposal timeframes and scored a low mean of 1.600.

The findings revealed that there are serious shortcomings in transparency, consistency, and efficiency within vehicle disposal procedures, as influenced by the fleet management policy. This is indicated by poor mean scores for ***VD1, VD2, and VD3*** which show a lack of transparency, inconsistencies pertaining to the techniques employed, and notable inefficiencies within disposal timelines within the disposal process. Kuznetsova et al. (2021) confirmed the study findings, highlighting the necessity of appropriate vehicle disposal guidelines to ensure effective vehicle disposal processes. These shortcomings identified within these result in ineffectiveness, increased maintenance costs, and reduced fleet performance. In addition, a study by Aflabo et al. (2020) supports similar findings, indicating a critical requirement for policy adjustments and systematic improvements to tackle vehicle disposal challenges. In contrast with the other variables, ***VD4*** had a higher mean score of 4.53 in assessing the local authorities' compliance with vehicle disposal guidelines, as established by the government. This implies a high degree of compliance with the Procurement and Disposal Act. The study's findings concur with prior research by Kachilala and Dumba (2022), which underlined the necessity for organizations to comply with governmental regulations, thereby encouraging sustainable practices within fleet management. The emphasis on conformity with government regulations strengthens the effectiveness of internal fleet management regulations.

Fuel management

Table 4 presents the findings of assessing the effectiveness of the internal fleet policy on fuel management practices. ***FM1*** showed a low mean score of 2.183, which assesses the alignment of fuel procurement processes with government regulations. The results illustrate significant gaps in fuel procurement. Studies by Rashid and Lugaric (2018) and Bentley and Hodge (2020) support these findings by underlining the critical importance of integrating fuel management strategies to ensure compliance with legislative requirements. This results in cost-effectiveness and transparency within the fuel management system. ***FM2*** assessed the presence of clear guidelines to prevent fuel misuse or theft and recorded a low mean score of 2.7833.

The results show the lack of comprehensive guidelines that mitigate fuel misuse, which leads to higher possibilities for fuel mismanagement. Furthermore, Akkartal and Aras (2021) stated that weak guidelines compromise operational efficiency and the effective management of vehicles. According to Ampiah (2018), establishing clear guidelines for the management of fuel is critical for ensuring cost effective operation. In addition, a low mean score of 1.000 for ***FM3*** was recorded, which assesses the efficiency of local authorities in monitoring fuel usage and consumption. The findings imply that there are weak systems within local authorities to adequately monitor fuel consumption, resulting in inefficiencies, thereby compromising service delivery. These findings are in line with those of Jayapal et al. (2023), who postulated that effective fleet management strives to continuously enhance fuel efficiency.

FM4 showed an average mean score of 3.550 for evaluating the presence of clear procedures for fuel allocation. ***FM4*** findings shows that the procedures are not entirely clear on how fuel is allocated in a transparent manner, at the same time the local authorities are heavily reliant on manual systems for fuel management. However, the study findings are not in alignment with prior research by Sakno et al. (2021), which emphasizes investment in fleet management technologies in promoting accountability with fuel allocation processes, which ensures effective management of fuel resources. This is an indication that as much as the local authorities have a fuel management system in place, the system does not respond to contemporary fleet needs. This demonstrates the extent to which the local authorities in Zimbabwe embrace modern fleet management technologies that are crucial for effective fuel management. However, the findings revealed that the rigidness of fleet management policy in local authorities has resulted on reliance on manual systems and failure to adapt to technological changes.

Regression analysis

Regression analysis was used to assess the influence of fleet management policy on vehicle acquisition, maintenance, vehicle disposal and fuel management. The regression analysis provided insights into the statistical strength of the relationships among the variables (Hafsa, 2019; Dorneles & Mathias, 2022). Furthermore, the study used regression equation expressed as:

$$PW = \beta_0 + \beta_1 E + \beta_2 AI + \beta_3 IDM + \varepsilon$$

Where:

*Fleet management policy = 5.626 + (0.667 * Vehicle Acquisition) + (0.661 * Vehicle Maintenance) + (0.669 * Vehicle Disposal) + (0.683 * Fuel Management)*

Table 5. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	5.626	1.587		3.546	.001
Vehicle Acquisition	.667	.117	.658	.056	.000
Vehicle Maintenance	.661	.129	.674	4.047	.000
Vehicle Disposal	.669	.158	.667	.1.069	.000
Fuel Management	.683	.158	.680	.524	.000

a. Dependent Variable: FMP

Source: Authors (2025).

Table 5 presents coefficients of results, indicating that fleet management policy had a positive influence on the vehicle acquisition process, as confirmed by a standardized coefficient of 0.658. These results are influenced by factors such as the presence of clear key performance indicators, clear communication mechanisms, cost effective vehicle management, well defined vehicle acquisition procedures, compliance legislation, and alignment policy with operational needs. The findings showed a unit increase of 0.667 because of a well-defined fleet management policy for local authorities and clear vehicle acquisition processes. Therefore, for urban local authorities a well-defined fleet management policy promotes clarity of acquisition, and optimizing processes, resulting in improved distribution of resources. Dwyer et al. (2021) support the finding that a well-defined fleet management policy has a positive influence on the vehicle acquisition process that promotes the right fleet sizing in organizations.

In addition, the coefficient results show that the fleet management policy has a positive influence on vehicle maintenance actions, as indicated by the standardized coefficient of 0.674. This positive relationship is driven by factors including clear and consistent maintenance procedures. A unit score increase of 0.661 in vehicle maintenance shows proper vehicle maintenance strategies, which is an indication of an efficient fleet management policy. In the context of local authorities well defined fleet management policy promotes effective functionality of the vehicles and reduce downtime. This finding is supported by Gackowiec (2019), who showed that effective maintenance strategies are an indication of a clear maintenance policy and frameworks that give direction to proper maintenance systems.

Furthermore, table 5 shows the positive coefficient influence of fleet management policy on vehicle disposal in local authorities in Zimbabwe, as indicated by the standardized coefficient of 0.667. This positive effect was influenced by factors such as transparency, consistency, right timing for disposal, and adherence to disposal guidelines established by the government. In addition, the findings show that every unit with an increase of 0.669 in vehicle disposal processes translates into the effectiveness of vehicle disposal strategies in fleet management policy. Therefore, well-defined disposal fleet policy in local authorities promotes the right disposal timing and reduced usage of aged fleet that is associated with high operational costs and poor performance. These results are consistent with the findings of Munuhwa et al. (2020), who alluded to the importance of establishing the right time for disposal. Similarly, Kuznetsova et al. (2021) emphasized the importance of a comprehensive approach to disposing of non-functional vehicles which improves organizational performance.

Moreover, fuel management recorded a standardized coefficient score of 0.680, which showed a positive effect of the fleet management policy on fuel management. This effect is further supported by underlying factors, including clarity in the fuel procurement process, measures to prevent fuel misuse, and efficient fuel allocation and monitoring. The results show that an increase in the units of fuel management by 0.683 indicates effective fuel management strategies. In the same vein a well-constructed fuel management ensures adequate fuel distribution and allocation, in relation to operational needs in local authorities. Therefore, these results imply that efficient fuel management strategies are an indication of a robust fleet management policy. Kanyepe (2023) stated that the effectiveness of fuel management influences organizational performance. Similarly, Romero et al. (2024) emphasize that organizations should continuously implement measures to curb fuel misuse.

Hypothesis testing

Table 6 shows the correlation analysis which was used to test the study hypotheses.

Table 6. Hypothesis Testing

		Fleet management policy	Vehicle Acquisition	Vehicle Maintenance	Vehicle Disposal	Fuel Management
Fleet management policy	Pearson correlation Sig. (2-tailed) N	1 347				
Vehicle Acquisition	Pearson correlation Sig. (2-tailed) N	178 .450** 347	1 .000** 347			
Vehicle Maintenance	Pearson correlation Sig. (2-tailed) N	.400 .000** 347	451 .000** 347	1 .010** 347		
Vehicle Disposal	Pearson correlation Sig. (2-tailed) N	300 .000** 347	.200 .000** 347	145 058** 347	1 060** 347	
Fuel Management	Pearson correlation Sig. (2-tailed) N	.192 .000** 347	.178 .126** 347	.155 .158** 347	145 213** 347	.1 .350** 347

Correlation is significant at $p < 0.01$ level (2 tailed)

Source: Authors (2025).

H1. A well-constructed fleet management policy positively influences vehicle acquisition processes.

The correlation coefficient between fleet management policy and vehicle acquisition is significant at ($r=0.178$, $p < 0.01$). The results show a positive association between the fleet management policy and vehicle acquisition. The findings reveal that a well-constructed fleet management policy, positively influences vehicle acquisition through ensuring right fleet sizing and acquisition timing, that in turn leading to informed procurement decisions in local authorities. Previous studies that include Stokic et al. (2020), Chiparo et al. (2022), agree with the findings that a well-constructed and implemented fleet management policy provides a structured framework, which ensures a cost-effective management of fleet.

H_2. A well-constructed fleet management policy positively influences vehicle maintenance.

The correlation coefficient between fleet management policy and vehicle maintenance is significant at ($r= 0.400$, $p < 0.01$). The results indicate a positive relationship between the fleet management policy and vehicle maintenance. The findings reveal that fleet management policies have a positive significant effect on vehicle maintenance because they establish guidelines regarding maintenance activities that affect vehicle lifespan and operational costs in local authorities. Studies by Sa-Nga-Ngam et al. (2024), Castillo and Parlikad (2024) highlight that a comprehensive fleet management policy contributes to more efficient vehicle maintenance practices.

H_3. A well-constructed fleet management policy has a positive influence on vehicle disposal processes

The correlation coefficient between fleet management policy and vehicle disposal is significant ($r=0.300$, $p < 0.01$). The findings indicated a positive association between fleet management policy and vehicle disposal. In the context of local authorities' efficient fleet disposal fosters cost effective replacement and disposal methods that result in efficient disposal process. Munuhwa et al. (2020) supports the findings by stating that an efficient fleet management policy contributes to improved vehicle disposal actions.

H_4. A well-constructed fleet management policy has a positive effect on fuel management

The correlation coefficient between fleet management policy and fuel management was significant at ($r= 0.192$, $p < 0.01$). This indicates a positive relationship between fleet management policy and fuel management. Effective fleet management policies have a significant influence on fuel management through promoting accountability towards usage of fuel, which eventually lowers costs and improved fuel efficiency in local authorities. The findings are in alignment with a study by Munahar et al. (2023) which established that establishing clear policy guidelines for fuel management enables efficient fuel management.

Conclusion and implications

This section presents conclusion and implications of the study.

Implication to theory

The theoretical implications of the study were assessed by researchers using various theories, including institutional, agency, and RBV theory. Institutional theory suggests that organizations adopt certain practices and policies based on external pressures and institutional norms. In the case of local authorities in Zimbabwe, the weak fleet management policy may be influenced by institutional factors, such as lack of enforcement of regulations and limited access to resources. Scholars have argued that the institutional theory can be applied to understand the impact of these external factors on fleet management policies (Sakno et al., 2021).

From a RBV theory standpoint, vehicles are critical resources within local governments, and effective policies can enhance fleet management. The theory underscores the importance of organizations efficiently utilizing their resources to attain competitive advantage (Uyanık, 2023). Therefore, the study findings revealed the necessity for local authorities to adequately address the shortcomings of fleet management policies, maximizing resource allocation and utilization, thereby supporting effective fleet management.

Implication to local authorities

The findings suggest that there are substantial shortcomings in the internal fleet management policy of local authorities, particularly in areas such as vehicle acquisition, maintenance, disposal and, fuel management. Studies by Eftekhar and Wassenhove (2016), Redmer (2020), Zhang et al. (2021), Kachilala and Dumba (2022), and Woody et al. (2024) have highlighted the detrimental effects of poor fleet management policy on the operations of organizations, emphasizing the importance of clear guidelines, compliance with regulations, and efficient practices in fleet management. This underscores the critical need for local authorities in Zimbabwe to address the deficiencies identified in fleet management policies to improve operational efficiency.

Limitations

The limitations of this study are that it focused on local authorities in Zimbabwe, which limits the generalizability of the findings to other sectors. Furthermore, this study did not explore other potential factors that may influence fleet management effectiveness, such as leadership and organizational culture. The study relied on primary data gathered from respondents over a short timeframe, which might have led to bias. Despite these limitations, this study overcomes the limitations of utilizing a mixed-methods approach, and a large sample size was also utilized to ensure a comprehensive understanding of fleet management in local authorities. Therefore, these limitations present opportunities for future studies of this nature to be conducted in various contexts in Zimbabwe and other countries to generalize the findings.

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Evaluating implementation of financial audit recommendations on performance of local authorities in Zimbabwe.

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Abstract

The research aims to establish the relationship between the implementation of audit recommendations and the performance of local authorities. The study is guided by audit theories which generally emphasize the need to implement audit recommendations to improve the performance results of local authorities. The research used pragmatism philosophy which uses a mixed research choice. 238 Closed ended structured Likert scale questionnaires were administered and 11 interviews were conducted until saturation was reached. The structural equation model was used as the analysis method for quantitative data to extract both factors unobserved or latent variables and also tests direct and indirect effects. The qualitative data in this study was analysed by using the thematic analysis method because it provides in-depth insights and contextual understanding of the research topic. The research findings showed that implementation of audit recommendations positively impacts performance by improving service delivery. Furthermore, the research adds to the current body of knowledge by highlighting factors that affect implementation of audit recommendations named as local authorities' committees' skills composition, local authorities' committees' diversity, staff competence, staff attitude. While this research focused on the local authorities, further research can investigate the current trends regarding the implementation of audit recommendations in the central government in Zimbabwe.

Keywords: Implementation, Audit recommendations, Performance, Local authorities.

Introduction

Globally there have been increased concerns of implementation of audit recommendations. Different scholars and writers from Australia, America, Europe, Asia and Africa raise concerns on non-implementation of audit recommendations (Atuhumuza, 2016; Zhou et al, 2016; Muhammad et al; 2017; Australian National Audit Office, 2019; Melanie et al, 2019; EUROSAI, 2021; Rodakos et al, 2021). Audit recommendations vary in scope and complexity, consequently, the implementation task may require coordination across a range of programme delivery and support functions within an entity (Australian National Audit Office, 2019). The benefits of audit reports are reduced and performance of the entities remains poor, if audit recommendations are not implemented within the agreed time frames (www.anao.gov.au). According to Melanie et.al (2019) factors which affect non implementation of audit recommendations are lack of knowledge, lack of motivation and low value care. Globally researchers discovered that regulation, internal controls characteristics of internal audit departments, organizational structure and staffing issues are affecting non implementation of audit recommendations in Italy and Europe (EUROSAI, 2021; Rodakos et al, 2021). Furthermore, Muhammad et al (2017) observed that board composition and regulatory factors affected non implementation of audit recommendations in Indonesia.

Researchers concur that staffing issues, organizational factors, nature of findings, individual factors and nature of recommendations are the causes of non-implementation of audit recommendations (Alabede, 2012; Atuhumuza, 2016; Duplessis, 2017; Zhou et al 2016 and Wadesango et al 2017). Furthermore, Atuhumuza (2016) noted increased accountability, improved health services and better-quality education as results of implementing audit recommendations.

Non- implementation of audit recommendations by municipalities in Zimbabwe, Europe and South Africa have resulted into continued malpractices, deep seated malfeasance especially in accounting procedures and procurement processes, corruption, mismanagement of public funds, poor corporate governance, non-submission of financial statements for audit and poor service delivery (Auditor General Reports 2017-2023, EUROSAI, 2020, Matlala & Uwizeyimana, 2020). Audit's reports are shelved with scant regard to the content of the recommendations (Mhike, 2015 & Australian National Audit Office, 2020). It has further been stated that Parliament through its portfolio committees had the responsibility to scrutinize and recommend litigation on culprits (Mangwana, 2019; Pamungkas et al, 2019 and Melanie at al 2019)

Despite the provisions in the Constitution that mandate the Parliament to take action in ensuring that Auditor General's recommendations are implemented, the Local Authorities have continued to receive the same audit opinions. The analysis of the Auditor General's reports from 2017 -2023 shows the decrease in implementation rate from 21% in 2017 to 6 % in 2023.The Auditor General's reports from 2017-2023 also highlight an increase in recurring audit observations from 21% in 2017 to 57 % as of 31 December 2023.This shows a decrease in implementation as of 31 December 2023.

The trend analysis from Auditor General's reports of 2017-2023 indicates that the qualifying audit opinion has increased from 17% in 2017 to 30% in 2023. Thus, the qualifying audit opinion has increased by13%. The unmodified audit opinion has decreased from 28% in 2017 to 2% in 2023. This indicates there has been a decrease in unmodified opinion of 26%. Hence this is evidence that there were a lot of irregularities which were raised by the auditor General from 2017- 2023 but of concern is that these irregularities were not addressed by the local authorities, consequently affecting the performance of local authorities.

The disclaimer opinion has increased to 7% in 2023 from 5% in 2017. The disclaimer opinions have increased by 2% from 2017- 2023. The adverse opinion has increased to 60% in 2023 from 50% in 2017. Adverse opinions have increased by 10%. In 2023 alone the Auditor General had 2 unmodified opinions, 29 qualified opinions, 7 disclaimers and 58 adverse opinions. Therefore, it can be noted that a lot of irregularities identified were not implemented, because only two local authorities had clean reports out of a total of 86 local authorities audited in 2023.

According to the Herald of 1 July 2019; Muzulu, 2020 and Mupanga, 2020, the Auditor General noted that lack of good governance continued to dog most councils. This is evidenced by the Auditor General in her 2019 audit report that the following three local authorities were operating without key policy and procedures manuals for three consecutive years since 2016. Hence this can be highlighted that the situation is like this due to lack of implementation of Auditor General's recommendations that policy and procedures manuals should be implemented.

According to the Auditor General, some local authorities had outstanding statutory obligations of $22 901 682. As from 2017 to December 2023 the councils had not been able to pay obligations resulting in accumulation of costs. This implies that the councils were not taking heed to the auditor general's recommendations hence accumulated costs constituted poor service delivery. The costs range from salaries and wages, remittances and statutory deductions as well as other obligations respectively. Hence, this has a negative impact on the budget of local authorities and performance due to non-implementation of audit recommendations in local authorities.

Almost 90% of revenue collected is spent on costs and only 10% on development projects (Auditor General Reports 2017-2023). Hence according to Chitambara (2020) and the Auditor General's report of 2023 local authorities in Zimbabwe are in the eye of a storm for lack of transparency and accountability in the management of public funds because they are not implementing auditor general's recommendations.

The 2023 auditor general report on local authorities highlighted that governance issues dominated much of the audit findings as they increased from 61 issues in 2020 to 190 in 2023, revenue collection and debt recovery issues increased from 37 to 81 between 2020 and 2023, whilst procurement issues increased from 12 in 2021 to 21 in 2023 and service delivery issues rose from 2 in 2020 to 23 in 2023, employment issues rose from 12 in 2020 to 14 in 2023 as well as management of assets rose from 0 in 2020 to 25 in 2023. Therefore this is a clear indication that audit recommendations are not being implemented by local authorities because audit findings have risen for these noted years. Hence recurrence of audit findings and non-implementation of audit recommendations cannot be ruled out consequently this has adverse effects on performance of local authorities. There is a challenge in implementing audit recommendations in local authorities and this has constituted gross misappropriation of funds and poor service delivery (Makombe, 2020; Mutandwa & Hendriks, 2022). Zimbabwe Coalition on Debt and Development (ZIMCODD)'s analysis of the 2022 findings of the Auditor General on local authorities further highlights that public sector auditing remains a cornerstone for the realization of sound public sector governance anchored on public accountability, transparency, integrity, efficiency and effectiveness in all matters and decisions involving public funds.

According to audit reports local authorities are struggling to properly account for public funds as evidenced by recurrence of audit observations and the non-implementation within the agreed time frames. According to the Auditor General in her 2020 report, there is room for improvement in accountability and transparency in all the Local Authorities. This can be achieved if among other things, audit recommendations are implemented. Several authors concur that an efficient and effective internal control system, cooperation of the audit committee and regulatory laws affected non implementation of audit recommendations in Nigeria, Europe and America (Alabede, 2012; EUROSAI, 2021 and Melanie et al, 2019).

Literature Review

Theories supporting the study

Several theories have been reviewed among others are agency theory, policeman theory, lending credibility theory, quasi -judicial theory, the theory of inspired confidence and the institutional theory (Haapamaki, 2022; Lammer & Garci, 2017; Agoglia et al, 2015; Togbolo et al, 2020; Dennis, 2015; Aliu et al, 2018; Mattei et al, 2021). Agency theory and institutional theory appear to be the crucial and important theories of accountability and institutions. They explain the development of audit as well as institutions and their vital roles in today's economy as stated by Martin (2018). In this study, the institutional theory acts as the normative organization's adaption of the institutional practice force of the organizations, to which accountants are attached to produce financial reports, which are shaped by accounting standards (Baker et. al, 2014; Lammers & Garcia, 2017; Haapamaki, 2022). In this paper, an agency relationship therefore occurs when one or more principals such as the owner (stakeholders) engage another person as their agent (local authorities) to complete a task on their behalf. The agency theory also is used to apply to the relationship between the auditors and the local authorities where the local authorities as the principles engage the work of auditors who would be in the capacity of agents. Auditors are supposed to audit the books of accounts diligently and come up with findings, risks and recommendations which the local authorities are supposed to implement in the interest of stakeholders (the citizens) and auditors as well.

Empirical Literature review

Globally, empirical studies indicate that the determinants that affect successful implementation of audit recommendations vary (ANAO, 2018; Shukeria, 2017; Shamsuddin, 2016; Duplessis, 2016; Dugassa, 2018; Atuhumuza, 2016; Wadesango et al, 2017; Matlala & Uwizeyimana, 2020; Msenga, 2021; EUROSAI project, 2021; Rodakos et al, 2021).Audit recommendations vary in scope and complexity consequently the implementation task may require coordination across a range of programme delivery and support functions within an entity (Australian National Audit Office, 2015; Pamungkas et.al 2019). The benefits of audit reports are reduced and performance of the entities remains poor, if audit recommendations are not implemented within the agreed time frames (www.anao.gov.au; Msenga, 2021). Various scholars discovered that regulations, internal controls characteristics of internal audit departments, organizational structure, staffing issues, auditor type, audit opinion, firm performance, environmental transparency and public accountability affected non implementation of audit recommendations in Europe, Italy and Malaysia (EUROSAI, 2021; Rodakos et al, 2021; Shukeria, 2017; Shamsuddin, 2016 and Doan & Ta 2022). Scholars noted unstable foundation in terms of unclear goals and unclear strategies, immaturity of the local authority, lack of relevancy of the implementation, staff resistance, low management priority, insufficient resources, uselessness of the recommendation, availability of resources, lack of audit monitoring processes, absence of authority, and staffing problems, quality of audit recommendations, management commitment, monitoring and follow up of audit recommendations auditor professional designation , due diligence, client relations, documentation and tracking of audit recommendations as factors that affect implementation of audit recommendations in South Africa and Ethiopia (DuPlessis, 2016; Msenga, 2021; Matlala & Uwizeyimana, 2020; Katuli, 2019; Dugassa, 2018; Mihret & Woldeyohannis; 2007, Orkaido & Moges, 2022). The core role of local government is to provide basic services such as water, sanitation and electricity to its citizens. Failure by the local authorities to implement audit recommendations would force authorities not to deliver its services as expected, (Dzomira, 2020; Mwilima, 2018). Therefore, it is essential that implementations must be done.

Attributes of non-implementation of audit recommendations include organizational factors, nature of findings, individual factors, financial constraints, staffing issues, complex issues, nature of recommendations, reputational risk, backlog on reports of accountability committees that span over five years, inadequacy of laws, abuse of office leadership, technical and financial support in Uganda, Southern Africa and Zimbabwe (Atuhumuza, 2016; Aikin, 2012; Nandugga, 2019; Quampah et al, 2021; Kewo & Afia, 2017; Wadesango et al, 2017; Johanisi, 2017; Zhou & Zinyama, 2012; Sulaiman, 2011; Wamaji, 2015; Suwanda, 2015; Manaf, 2015). It is further highlighted that non implementation of audit recommendations decapitates Local authorities with the ability to provide efficient and effective service delivery to the public (Bubilek, 2017; Furqan, 2019).

Local authorities’ committees’ skills composition and Implementation of audit recommendations

Poor oversight and performance monitoring of local authorities’ committees and the failures of audit has been implicated in the state of distress and failures of many local authorities (Akhidime, 2015; Financial Reporting Council, 2018). Local authorities’ committees which have more experience in terms of audit skills, risk skills and leadership skills are more likely to demand high quality audit work and oversight roles (Ogoun & Perelafeya, 2020). Conclusion can be drawn that higher levels of local authorities’ committees’ expertise led to higher monitoring and oversight incentives (Kirsch, 2018).

Studies conducted in Australia and America by The Australian Audit Office (2021) and Melanie et al (2020) respectively, in public institutions of the two continents indicated organisational factors such as lack of motivation and low value care value care of recommendations made by audit by staff and management as factors that affect implementation of audit recommendations. These studies were conducted in public institutions of developed continents hence this study aimed to find out other organisational factors that affect implementation of audit recommendations in a developing country and precisely, committees’ skills’ composition.

Local authorities’ committees' diversity and Implementation of audit recommendations

Scholars elaborate that local authorities’ committees’ diversity refers to heterogeneous composition of the committees in term of gender, age, race, education, experience, nationality, lifestyle, culture, religion and many other facts that make each of us unique as individuals (Alabede, 2016; Subhan & Waqar, 2019). Local authorities’ committees' diversity helps to enhance network ties and skills to advise and monitor implementation of audit recommendations (Tugman & Leka, 2019; Ferdinand, 2009).

Matlala & Uwizeyimana (2020) in South Africa conducted research in 2020 and noted poor governance, financial mismanagement, and embezzlement as factors that affect implementation of audit recommendations. The study conducted by Matlala & Uwizeyimana did not elaborate on how local authorities' committees' diversity affects implementation of audit recommendations. Matlala & Uwizeyimana (2020) used the longitudinal time horizon in their research whilst the researcher of this study used the cross-sectional time horizon. It is plausible to note that this study was conducted for the period 2017-2023 and it aims to elaborate how committee diversity in local authorities affects the implementation of audit recommendations.

Staff competency and Implementation of audit recommendations

For auditors to effectively implement their recommendations there is need for competent and decided staff within the finance or accounting department and the organization as a whole (Australian National Audit Office, 2014; Wadesango et al, 2019). It is more difficult to implement audit recommendations when the present staff is not knowledgeable, skilled or experienced enough in handling audits and implementing audit recommendations (Jachi & Yona, 2019; Mulyana et al, 2021; Koeswayo, 2016). Staff competency has also contributed to a significant backlog in the implementation process (Aikins, 2012; Katuli, 2019).

In Europe EUROSAI (2021) discovered that regulations, internal controls characteristics of internal audit departments, organizational structure and staffing issues affected non implementation of audit recommendations in Italy. Issues such as weak regulatory frameworks, institutional fragmentation and bureaucratic resistance were found as hindrances to implementation of audit recommendations in Europe by De Zoysa (2022). In Asia, factors including cultural norms, weak enforcement mechanisms and limited capacity have been identified as barriers to implementation of audit recommendations by Kassem (2020). The studies mentioned above were conducted in private institutions though the scholars mention staffing issues as one of the factors that affects implementation of audit recommendations. Hence this study was conducted to elaborate on the effects of staff attitude on implementation of audit recommendations in local authorities which are public institutions, in Zimbabwe.

Staff Attitude and Implementation of audit recommendations

The general lack of cooperation by staff in an organization is a challenge when implementing the recommendations (Rahmati & Dain, 2019; Aikins, 2012). It is mainly the duty of staff to implement audit recommendations (Wadesango et.al, 2019; Mwilima, 2018; Rahmati & Dain, 2019; Aikins, 2012). Doan & Ta (2022) noted that as long as staff is supportive to the audit section, it is easier for it to adopt audit suggestions and recommended practices.

In Zimbabwe according to Gwisai (2020); Muponda & Chimhenga (2021); Chitimbe (2022) and Mhlanga & Chitimbe (2023) determinants of non-implementation of audit recommendations are lack of political will, presence of weak institutional capacity and oversight mechanisms which can result in challenges in monitoring and ensuring the implementation of audit recommendations. Ndlovu (2020) and Gwisai (2024) further highlight those financial constraints, budgetary limitations, prevalence of corruption and lack of accountability in the public sector as impediments of implementation of audit recommendations. It is plausible to note that this study seeks to elaborate on how staff attitude affects implementation of audit recommendations in Zimbabwe's local authorities. Analysis from scholars above highlights that there is scarce literature on how staff attitude affects implementation of audit recommendations in local authorities in Zimbabwe hence this study seeks to address that.

Relationship between implementation of audit recommendations and performance

Concept of performance in local authorities

Performance of local authorities is often evaluated based on service delivery metrics such as access to clean water, sanitation facilities, waste management services and road maintenance (Nhundu & Chitiyo, 2022; Madhekeni, 2022; EUROSAI, 2020). Service delivery in local authorities in Zimbabwe is a crucial measure of performance that reflects governance effectiveness, public service provision and overall community satisfaction (Kamonjola, 2018; Chilunjika & Chikasha, 2021; Machingauta, 2021). Service delivery has five components which are accessibility of services, affordability of services, sustainability of services, accountability and quality of services (Nhema, 2015; Madhekeni, 2022; Mawowa, 2021; Atuhumuza, 2016; Australian National Audit Office, 2020; EROSAI, 2020). This study is going to note service delivery with its five components as measures of performance in local authorities in Zimbabwe.

An analysis of the relationship between implementation and performance is discussed below. There exist significant positive relationships between non-implementation of audit recommendations and the performance of the organization (Gramling et al, 2004; Pizzini et al, 2012). Non-implementation results in reduced effectiveness of the control system of the organization. This therefore encourages fraud, misuse, mismanagement of funds and poor service delivery. It also contributes to reduced profits and poor performance of the organization. Non implementation of audit recommendations weakens the internal control systems with poor segregation of duties and accountability and this creates loopholes for risk such as fraud and other loss of organization resources that would result in reduced profits (Burnaby & Hass, 2011; Regoliosi & Martino, 2019)

Though other scholars mentioned above take note of the relationship between performance and implementation, this study seeks to measure performance of local authorities in terms of service delivery. Also, this study covers diverse groups of local authorities in Zimbabwe which are local boards, rural district councils and urban councils. Therefore, this research is a diverse study of how implementation of audit recommendations affects performance of local authorities in Zimbabwe.

Conceptual Framework

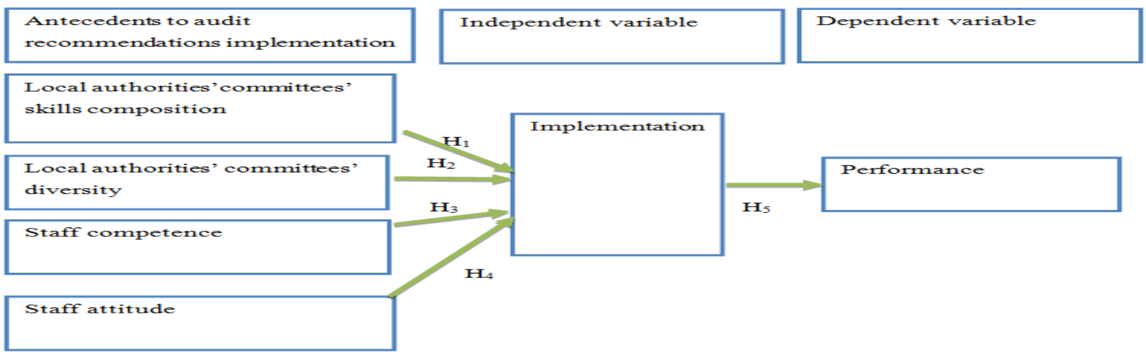

Figure 1: Researcher's compilation (2025)

This study focused on how local authorities' committees' skills composition, local authorities' committees' diversity, staff competence and staff attitude antecedently affect implementation (which is an independent variable) of audit recommendations on performance of local authorities. The performance of the local authorities was dependent on the independent variable, implementation, as shown in the diagram above.

The conceptual framework in the study was framed using the Principal Agency theory, the Institutional theory and the Reinforcement theory. The conceptual framework above depicts the factors that affect implementation of the Auditor General's recommendations. The contextual factors (antecedents to implementation of audit recommendations) are categorized as local authorities 'committees' skills composition, local authorities' committees' diversity, staff competence and staff attitude. The conceptual framework above further links the independent variable (implementation) to the dependent variable which is performance. In the conceptual framework it is hypothesized that once the independent variable and the contextual factors are addressed by the local authorities it will eradicate the challenge of non-implementation of audit recommendations on performance of local authorities.

Research Methodology

The researcher made use of pragmatism research philosophy meaning mixed research design. Out of a population of 610 employees who were under research, a sample of 238 was chosen using the Krejcie & Morgan table (1970) model. A structured questionnaire that participants self-administered was used to collect data and 172 questionnaires were completed in full and sent back hence 72% of respondents responded which deemed it acceptable according to Pickett et al (2018). Interview guides were used to collect qualitative data and point of saturation was reached at the 11th interviewee. Stratified and purposive samplings were methods used. Participants were chosen based on the appropriate persons considered to give reliable feedback. The research made use of both primary and secondary data to ensure validity and reliability of data. The researcher made use of interviews and closed ended likert scaled questionnaires as instruments of data collection. Structural equation method was used as the analysis method for quantitative data. The structural equation method is an advanced modelling technique which factors unobserved or latent variables and also tests direct and indirect effects. Thematic analysis method was used for qualitative data. As the interviews were few the researcher captured interviews returns in SPSS version 25 as string data and copied to web- based word cloud generator to extract word cloud used to give pictorial impression on results showing popularity rate as themes as well as verbatim quotes. Mixed method was used in this study because it provided a more detailed and contextualized picture of the phenomenon under study and developed a more nuanced understanding of the researcher's topic as well as increased the reliability and generalizability of the researcher's findings by analysing both quantitative and qualitative data in the study.

Results

Socio-demographic results

It is important for the research to give a summary of respondents' characteristics since this may help readers to assess whether data was collected from a representative sample or not depending on the degree of heterogeneity in respondent characteristics. Demographic features also help in validation of research results through an analysis of educational background and experience respondents held. To this effect information such as gender, education, experience and departments which respondents came from was sought. Table 4.2 below illustrates socio-demographic variables of respondents.

Table 1 illustrates socio-demographic variables of respondents.

		Count	Column N %
gender of respondents	Female	59	34.4%
	Male	113	65.6%
	Total	172	100.0%
department of respondents	Finance	47	27.0%
	Audit	46	26.2%
	administration	79	46.7%
	Total	172	100.0%
highest level of education	postgraduate	97	56.6%
	graduate	61	35.2%
	diploma	14	8.2%
	ACCA	0	0.0%
	CIMA	0	0.0%
	Total	172	100.0%
duration in local authority	below 1 year	12	7.4%
	1-5 years	37	21.3%
	5-10 years	11	6.6%
	10-20 years	90	52.5%
	above 20 years	21	12.3%
	Total	172	100.0%

Source: Researcher's results (2024)

The results showed that 113 (66%) of the respondents were male and 59 (34%) of the respondents were female. This indicates that there are more men working than women. In African societies, generally men dominate women in the working class as men are viewed as breadwinners for their respective families (Sear, 2021). This could be an indication why there is much resistance in implementation of audit recommendations because males are generally considered to be resistant to changes and norms (Sear, 2021).

Results on implementation factors

The research sought to ascertain organizational factors which influence implementation of audit recommendation in local authorities. Interviews were conducted to gain a deeper understanding of factors influencing implementation of audit recommendations. The items which came out of interviews together with existing literature were then captured in the structured questionnaire to allow proper quantification of such themes. Interviews show diverging views among them limited council committee's skills to play the crucial oversight role on council executive, committee diversity, implementing staff competencies as well as attitudes of staff. **Interviewee 5** clearly captured these factors through the following comprehensive statement:

"Implementation of crucial audit recommendations has been hampered by a multiplicity factor, but mostly because of selfish interests of both council members and management executives of local authorities. Chief among them being the need to conceal underhand dealings by both councillors and top council employees, but some however bothers on ignorance exacerbated by limited skill composition among councillors who should play an oversight role and limited diversity of council composition. Councillors are elected on the basis

of their public popularity …saying what people want to hear…yet they lack key competencies to execute their mandate….''.

Interviewee 9 concurred to the above view and had to capture his feelings through the following statement;

"Both council and senior executive seem to collude in milking local authorities dry as they deliberately decide not to implement audit recommendations as they believe that implementation will plug off loopholes, they use to take advantage of…despite fair skills committee composition they deliberately choose not to implement…."

Sifting through all the twelve interviews conducted shows committee skill composition as topping the list followed by very limited committee diversity as well as staff attitudes towards their work. A generated word cloud with all ideas which came from conducted interviews in presented in Figure 2 below:

Figure 2: Factors contributing to non-implementation of audit recommendations

Source: Results (2024)

The results from the above word cloud shows that limited skills among council committees contribute to non-implementation of audit recommendations. This theme is centralized and has a huge font size as captured by "*Commskills*" in the word cloud. The least popular theme is staff attitude as shown by theme "*staffattid*" in the word cloud which has the lowest font size. This therefore implies that this theme had the least mention in interviews conducted.

These four major themes from preliminary interviews were included in a closed ended questionnaire. The results from administered questionnaires allowed the researcher to quantify how respondents felt out the dimensions in relation to audit recommendation implications in local authorities. Table 4.9 below summarizes results from a structured questionnaire.

Table 2: Descriptive stats implementation factors

Descriptive Statistics

CODE	VARIABLE	N	Minimum	Maximum	Mean	Mean response	Std. Deviation
CSC	committee skills	172	1	4	2.77	Neutral	.995
CD	committee diversity	172	1	4	2.61	Neutral	1.116
CMP	staff competencies	172	1	5	3.37	Neutral	1.073
STA	staff attitudes	172	2	5	3.54	Agree	1.234
Overall					3.16	neutral	
	Valid N (listwise)	172					

Source: Researcher's results (2024)

Table 2 shows descriptive statistics for factors contributing to non-implementation of audit recommendations. Committee skills composition had a mean score of 2.77 (3) which corresponds to neither agree nor disagree mean response. This implies that respondents held divergent views though the overall impression points to neither agree nor disagree. The standard deviation of 0.995 which is way above shows that the responses were widely dispersed around the mean with some respondents from some local authorities agreeing to the limitedness of skills in council committees while others disagree. This is further evident by a wide range of 3. Committee diversity and staff competences also had mean responses of approximately 3 which once again correspond to neither agree nor disagree, and the huge standard deviation of above 0.5 shows that responses were widely dispersed around the mean response of neutral. On staff attitudes, a mean score of 3.54 (4) corresponds with agreed mean response which imply that the overall impression was local authorities' employees 'attitudes determine whether or not to implement audit recommendations. The overall mean response of 3.16 shows that respondents neither agree nor disagree to the four factors having caused non-implementation of audit recommendations.

Results on implementation levels of audit recommendations

The research sought to ascertain audit recommendations implementation in local authorities and to address this data was solicited through interviews and structured questionnaires. Interview results show four dimensions of audit recommendations. Sifting through interview data shows that they are those to do with accountability, those to do with areas for further training and competencies, those to do with need for stakeholder consultation, communication, and those on reporting.

Figure 3: Implementation levels of audit recommendations

Source: Researcher's results (2024)

The word cloud above shows that the most recurring theme as shown by the font size and centrality location is recommendations on training and competence enhancement were fully implemented "*trainfullyimp*", this is followed by "*Accpartially*" which pertains to implementation of recommendations on accountability in local authorizes. This implies that this dimension seems to be partially implemented. The least popular was on "*recoreportimplemented*", which signifies that recommendations on reporting were implemented. This had however few mentions. One interviewee (interviewee 3) had to capture implementations of audit recommendation in councils through her statement below;

''Most local authorities are reluctant to implement audit recommendations as they feel that transparency may plug their avenues to loot. Very few local authorities have implemented recommendations on inclusivity, stakeholder consultation on key issues, while on reporting financial statements of most local authorities are still in shamble with a number of local authorities opting not to invite auditors, City of Harare being an examples and the government had to withhold approval of their budget to force them to comply. Accountability is at rock bottom…."

The five dimension of local authority's implementation levels of audit recommendations were examined in a structured questionnaire and the results are presented in table 4.10 below;

Table 3: Descriptive Statistics on implementation levels

CODE	VARIABLE	N	Minimum	Maximum	Mean	Mean response	Std. Deviation
IMP1	implementation of recommendations on accountability	172	1	3	1.57	Partially implemented	.849
IMP2	implementation of recommendations on training and competency	172	1	3	1.87	Partially implemented	.640
IMP3	implementation of recommendations on consultation	172	1	3	1.84	Partially implemented	.748
IMP4	implementation of recommendations on communication	172	1	3	1.92	Partially implemented	.796
IMP5	implementation of recommendations on reporting	172	1	3	1.84	Partially implemented	.806
	Valid N (listwise)	172					

Source: Researcher's results (2024)

Performance of local authorities

The research also sought to ascertain performance levels of local authorities as measured by accountability, service delivery (health and education), social amenities as well as transparency in the operations of local authorities. Interview data showed four key themes emerging from interviews namely corruption prevalence, transparency levels, health services, financial performance as well as education quality. Data has been presented in figure 4.4 below

Figure 4: Performances of local authorities

Source: Researcher's results

A look at figure 4.4 above shows that the theme "corruincreased" had a huge font size and was centrally located imply that this was a theme with most mentions. This therefore means that corruption has increased across most local authorities as most interviewees mentioned this theme. The least popular theme was the health service declined as captured by the theme "*healthserdeclined*". This means that this theme had few mentions. Table 4 summarises the descriptive results.

Table 4: Descriptive statistics on performance of local authorities

Descriptive Statistics

code	Variable	N	Minimum	Maximum	Mean	Mean response	Std. Deviation
PEF1	implementation has increased accountability	172	1	4	2.57	Neutral	1.114
PEF2	implementation has improved health service delivery	172	1	4	2.53	Neutral	.997
PEF3	implementation has improved quality of education	172	1	12	3.08	Neutral	2.623
PEF4	implementation has improved financial performance of local authority	172	1	4	3.02	Neutral	.948
PEF5	implementation has improved transparency	172	1	5	2.93	Neutral	1.207
PEF6	implementation has resulted in decrease in corruption	172	1	5	2.61	Neutral	1.206
	Valid N (listwise)	172					

Source: Researcher's results (2024)

Table 4, shows that all performance measures for local authorities show a mean response of approximately 3 as shown by increased accountability with mean response of 2.57, improved health service delivery with 2.53, improved education quality 3.08, improved financial performance with 3.02, improved transparency 2.93 and decrease in corruption 2.61. All these mean responses correspond with neither agree nor disagree which means that respondents were indifferent, some agreeing to improved performance whilst some disagreed. The huge standard deviations show that respondents held divergent views on performance with some feeling that their local authorities performed well why others were of the opinion that their local authorities did not perform.

Hypotheses results and path coefficients

The research sought to establish the influence of contextual factors on implementation of audit recommendation in local authorities and had five hypotheses namely

H_1: Committee skills composition is positively related to audit recommendations implementation.

H_2: committee diversity statistically influence implementation of audit recommendations

H_3: Staff competence statistically influence implementation of audit recommendations

H_4: Staff attitudes positively influence audit recommendations in local authorities in local authorities

H_5: Implementation of audit recommendations positively affects performance of local authorities.

Data was analysed using AMOS with SPSS Version 25. The research result therefore shows that all the hypotheses were confirmed. Table 5 summarises research returns.

Regression Weights: (Group number 1 - Default model)

Hypothesis	Path	Estimate	S.E.	C.R.	P	Decision
H_1	**CSC→** IMP	.662	.058	1.469	***	Supported
H_2	**CD →** IMP	.681	.045	1.473	***	Supported
H_3	**CMP→** IMP	-.302	.026	-1.445	***	Supported
H_4	**STA→** IMP	.052	.004	1.086	***	Supported
H_5	**IMP→** PEF	.496	.749	1.478	***	Supported

Source: Researcher's results (2024)

Table 5 shows that committee skills composition was found to be positively related to audit recommendation implications as shown by the standardized regression weight (SRW) of 0.662 which implies that a unit improvement in skills composition of committee will lead to a massive 0.66-unit improvement in audit recommendation implementation, while the opposite is true. On the other hand, council committee diversity in form of age, sex, and ethnicity was found to be positively related to implementation of audit recommendation in local authorities as reflected by a SRW of 0.681 which once again shows a very strong positive relationship. However, staff competences were found to be negatively related to audit recommendations implementation as reflected by a SRW of -0.302 which shows that a unit improvement in staff competencies results in a 0.30 decline in implementation of audit recommendation. Staff attitudes towards their work was found to be statistically significant in explaining variability in audit recommendations implementation as shown by a SRW of 0.052 at 5% margin of error. This implies that a unit improvement in staff attitudes results in a 0.05-unit improvement in audit recommendations implementations. The opposite is true. Similarly, audit recommendations implementation was found to be positively related to performance of local authorities as reflected by a SRW of 0.496. The model fit summary as presented by table 6 below shows that it was robust as chi-square divided by degrees of freedom should ideally be less than 3 for a model to be significant in explaining variability in outcome variable. Further the RMSEA should ideally be less than 0.08 and this study was found to have 0.07 which once again confirms the model as fit.

Model Fit Summary

Table 6: Model Fit summary

Fit indices	Original model	Modified Model	Commended	Sources
$\chi 2/DF$	2.689	2.458	≤3.00	
GFI	0.872	0.908	>0.900	Reisinger and
AGFI	0.868	0.933	>0.900	Mavondo (2007),
NFI	0.866	0.914	>0.900	Hooper et al. (2008)
TLI	0.881	0.923	>0.900	Hair et al. (2010)
CFI	0.943	0.977	>0.900	
RMSEA	0.074	0.072	< 0.08	

The first index, the chi-square/degrees of freedom ratio (χ^2/df), is reduced from 2.689 in the original model to 2.458 in the modified model. A value of less than or equal to 3.00 is generally considered acceptable, indicating a good model fit. The improvement in this value demonstrates that the modifications enhanced the model's alignment with the observed data. The Goodness of Fit Index (GFI) increased from 0.872 in the original model to 0.908 in the modified model, surpassing the recommended threshold of 0.900. This index measures how well the model fits the sample data without considering model complexity. A GFI above 0.900 indicates that the model explains a substantial portion of the variance in the data. The Adjusted Goodness of Fit Index (AGFI), which adjusts the GFI for model complexity, also improved from 0.868 to 0.933, exceeding the acceptable threshold of 0.900 and suggesting a better balance between model fit and parsimony.

The Normed Fit Index (NFI), which compares the proposed model with a null model, improved from 0.866 to 0.914, again surpassing the threshold of 0.900. Similarly, the Tucker-Lewis Index (TLI), also known as the Non-Normed Fit Index (NNFI), rose from 0.881 to 0.923. This index penalizes complex models and a value above 0.900 reflects an excellent fit. The Comparative Fit Index (CFI), another widely used indicator that is less affected by sample size, increased from 0.943 to 0.977. This suggests a strong improvement and confirms that the modified model is highly consistent with the data. Finally, the Root Mean Square Error of Approximation (RMSEA), which assesses the model's approximation error per degree of freedom, decreased slightly from 0.074 to 0.072. Both values are below the recommended maximum threshold of 0.08, indicating a reasonable error of approximation and supporting model adequacy.

Fit indices improved in the modified model and met or exceeded the recommended thresholds suggested by scholars such as Reisinger and Mavondo (2007), Hooper et al. (2008), and Hair et al. (2010). This implies that the changes made to the original model significantly enhanced its structural validity, confirming that the model provides a robust and accurate representation of the relationships among contextual factors, audit implementation, and performance in Zimbabwe's local authorities.

The results from this study can be summarised through Figure 5 which illustrate how contextual factors affect implementation of audit recommendations implementation and ultimately local authorities' performance. Note that the four dimensions of contextual factors (committee skills composition CSC, staff competences –CMP, Committee Diversity (CD), and staff attitudes (STA) were all found to be statistically significant in explaining implementation of audit recommendations and its subsequent effect on performance of local authorities as measured by service delivery.

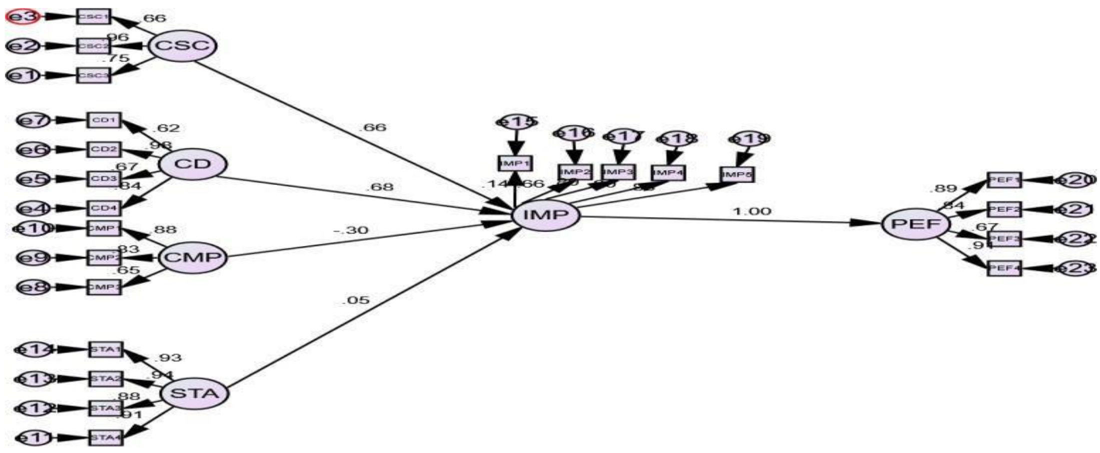

Figure 5: main path diagram

Main Path

In the path diagram, contextual factors (CSC, CD, CMP, and STA) directly affect implementation of audit recommendations in local authorities, while IMP (audit recommendations implementation) is directly related to local authorities' performance.

Figure 5 presents the main path diagram illustrating the effects of implementing financial audit recommendations on service delivery performance in local authorities in Zimbabwe. The structural model is based on Structural Equation Modelling (SEM), and it identifies five key latent constructs: Committee skills composition (CSC), Committee diversity (CD), Staff competence (CMP), Staff attitude (STA), and Implementation of Audit Recommendations (IMP) and Performance of Local Authorities (PEF) as the ultimate dependent variable. Each of these latent variables is measured using multiple observed indicators, shown as rectangles in the diagram, while the circular nodes represent the latent constructs.

The diagram indicates that four contextual factors CSC, CD, CMP, and STA have direct effects on the implementation of audit recommendations (IMP). Among these, Committee diversity (CD) shows the strongest positive effect on implementation with a standardized path coefficient of 0.68, followed closely by Committee skills composition (CSC) at 0.66. These results suggest that high committee skills composition and committee diversity significantly enhances the likelihood that audit recommendations will be implemented. These two factors are, therefore, essential internal enablers of good governance and accountability within local authorities.

Interestingly, the model shows a negative path coefficient from staff competence (CMP) to implementation (-0.30), suggesting that highly competent staff have tendencies of harbouring implementation of audit recommendations. This unexpected result may point to a scenario where competent local authorities' staffs uses their competence to commit corruption and in turn harbour implementation of audit recommendations hence there is need for training and workshops to assist in organizational culture change in local authorities to enhance awareness on implementation of audit recommendations. At the same time staff competence in local authorities is highly recommended and cannot be downplayed for highly competent staff helps an organization to reach its mandate and goal. On the other hand, staff attitude (STA) has a very weak positive influence on implementation, with a path coefficient of just 0.05. This implies that staff attitude may not exert sufficient influence or pressure on local authorities to implement audit recommendations effectively.

The implementation of audit recommendations (IMP) is shown to have a perfect positive correlation (1.00) with the Performance of Local Authorities (PEF). This indicates that all effects of the contextual variables on performance are fully mediated by the implementation process. In other words, improvements in service delivery performance are entirely dependent on whether or not the audit recommendations are actually implemented. This highlights the centrality of implementation in translating governance reforms into tangible public service improvements. Therefore, even if local authorities possess competent staff, operate with discipline, or show signs of accountability and compliance, these factors only contribute to performance when they lead to the actual execution of audit recommendations.

Implications of this study

Implications for policy

Capacity building programs and resources should be provided to local authorities to enhance staff competencies and foster positive attitudes towards the audit process and the implementation of recommendations. This could involve training programs, knowledge–sharing platforms and the dissemination of best practices. Policies should be developed to encourage and incentivize the effective implementation of audit recommendations, recognizing and rewarding local authorities that demonstrate significant improvements in performance thus service delivery and accountability. The Central Government should formulate and promulgate policies and regulations that criminalize non-implementation of audit recommendations by local authorities within the stipulated time, where non adherence to implementation of audit recommendations will meet significant punishment.

Implications for practice

Local authorities should prioritize the development and maintenance of council committees with diverse compositions and members possessing relevant skills and expertise. This can be achieved through targeted recruitment, training and continuous professional development programs for committee members. Strategies should be implemented to foster positive attitudes towards the audit process and the implementation of recommendations. This could include awareness campaigns, change management initiatives and incentive structures that encourage accountability and a commitment to continuous improvement. Local authorities should establish robust monitoring and evaluation mechanisms to track the implementation of audit recommendations and assess their impact on organizational performance. This would enable timely corrective actions and facilitate continuous improvement.

Implications for theory

Further research is needed to explore the underlying reasons for the negative relationship between staff competencies and the implementation of audit recommendations. This counterintuitive finding warrants deeper investigation to understand the dynamics and potential mediating factors involved. The study proposes a framework that integrates contextual factors and that explain audit recommendation implementation in local authorities. Future studies should consider incorporating additional contextual factors, such as organizational culture, leadership styles, and resource availability to gain a more comprehensive understanding of the factors influencing audit recommendation implementation. Longitudinal studies should be conducted to examine the long term effects of audit recommendation implementation on the performance of local authorities, as well as the sustainability of the observed improvements.

Implications for research methodology

-Exploring the underlying reasons for the negative relationship between staff competencies and the implementation of audit recommendations. The counterintuitive finding that highly competent staff may be more inclined to question or resist audit recommendations warrants further investigation to understand the dynamics and potential mediating factors involved.

-Examining the long term effects of audit recommendation implementation on the performance of local authorities. A longitudinal study could be conducted to assess the sustainability of the observed improvements in performance over an extended period and identify any potential challenges or factors that may influence the long- term impact.

Contribution to existing body of knowledge

This study makes significant contributions by developing a practical framework for implementing audit recommendations aimed at improving the performance of local authorities. It addresses critical systemic challenges and offers policy implications that can lead to meaningful reforms in governance practices. By providing empirical evidence through case studies, it not only enriches academic discourse but also serves as a valuable resource for practitioners and policymakers seeking to enhance the effectiveness of local governance in Zimbabwe. This comprehensive approach ensures that the study is relevant not only academically but also practically, aiming for real improvements in public administration and service delivery within local authorities.

Conclusion

In addressing the objectives of the study, several key aspects were thoroughly investigated: To examine the factors that affects the implementation of audit recommendations: The research identified that committee skills composition, committee diversity, staff competencies, and staff attitudes are critical factors influencing the implementation of audit recommendations. The study found that councils with diverse committees possessing the relevant skills and expertise were more likely to implement audit recommendations effectively.

To determine the relationship between the implementation of audit recommendations and the performance of local authorities: The research confirmed a positive relationship between the implementation of audit recommendations and improved service delivery. The successful adoption of audit recommendations led to better performance in local authorities, particularly in terms of accessibility, affordability, sustainability, accountability, and the overall quality of services provided.

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The effects of strategic planning capabilities on organisational performance in Zimbabwean State-Owned Enterprises (SOEs)

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ABSTRACT

This study focused on the effects of strategic planning capabilities on organizational performance in Zimbabwean State-Owned Enterprises (SOEs). The extant literature and empirical evidence on strategic planning capability variables, environment scanning, strategy formulation, strategy implementation, strategy monitoring and evaluation, and strategy control were reviewed. The study used a mixed method approach, collecting both quantitative and qualitative data from respondents drawn from SOEs. Quantitative data were collected from a sample of 312 senior executives in Zimbabwean State-Owned Enterprises (SOEs) and analyzed using SPSS Version 21 and AMOS version 21. Quantitative data were complemented by qualitative data collected through interviews with 15 managers from different state-owned enterprises. The results indicate that strategic planning capabilities, individually and collectively, have a significantly positive relationship with organizational performance. While the importance of strategic planning capabilities in improving SOE performance was acknowledged, the study findings reflect that in most SOEs, managers lacked these capabilities, resulting in poor performance in some of the organisations. The findings further reflect that that macro-environmental factors moderate the effect of strategic planning capabilities on the performance of SOEs, implying the need for enhancing SOE managers' capabilities to effectively analyse the macro environment and astutely manage its impact on the relationship between strategic planning capabilities and organisational performance. Against this background, this study recommends that organizations invest resources in equipping managers *with the requisite skills for effective environmental scanning, strategy formulation, implementation, monitoring and evaluation, and control so that they contribute towards performance improvement by effectively managing the strategic planning process. The implications for the research findings to industry, academia, and policymakers are articulated, and recommendations for further study are also provided.*

Key words: environmental scanning, formulation, implementation, monitoring and evaluation, strategy

Introduction

The performance of organizations has been studied for decades, as various stakeholders have different dimensions of interest in how organizations perform (Garavan, 2021; Nani, 2021; Nuhu, 2019; Rehman Khan, 2022; Ouakouak, 2014). Stakeholder groups include shareholders, customers, staff, civic society organizations, the general public, researchers, regulators, competitors, and suppliers (Freeman, 2018; Freudenreich, 2019; Parmar, 2019). All these stakeholders have varied interests in organizational performance, as good organizational performance ensures the continued protection and preservation of their interests within the organization (Ginena, 2017; Parmar, 2019; Timming, 2018). The concept of organizational performance has been studied across private and public entities, profit-oriented and not-for-profit organizations, schools, universities, and non-governmental organisations. Various factors that facilitate or enhance performance (effective strategic planning, employee engagement, innovation and adaptability, resource optimisation, customer focus, technology deployment, and clear performance metrics), on the one hand, and those that impede organizational performance (poor leadership, pack of strategic vision, resistance to change, poor communication, inadequate resources and poor performance management), on the other hand, have been studied in different settings with varied conclusions being reached (Barkotic, 2018; Chen, 2016; García-Sánchez, 2017).

Some of the factors that affect organizational performance are internal to the organization, while others are external (Laisasikorn, 2019; Yuniningsih, 2018). Strategic management is one of the major management concepts that has a significant impact on organizational performance. Strategic management has a very broad scope of influence on organizational performance as it covers functions such as environmental scanning, which focuses on both internal and external factors, the formulation of strategy, crafting the organizational vision, mission, values and objectives, setting performance targets, performance standards and measurement criteria, and strategy implementation, which entails the development and execution of action plans to give effect to the achievement of organizational goals, monitoring, evaluation, and control; all ensure that there is adherence to the set path for achieving the set objectives without digression (Parnell, 2015; Spyropoulou, 2017). Within the study of strategic management and its impact on organizational performance, one of the critical aspects is the strategic planning capabilities of those entrusted with running organizations (Joyce, 2012, Stirna, 2016; Spyropoulou, 2017). The extent to which managers have the requisite skills and expertise to competently carry out strategic management functions to drive organizational performance is the subject of interest in this study. Strategic planning capabilities are being studied within the context of state-owned enterprises, with a view to analyzing the impact of these capabilities on the performance of state-owned enterprises. The performance of state-owned enterprises is an area of interest to various stakeholders as these entities perform critical functions in national economic development (Dickson, 2016; Heo, 2018; Shidarta, 2020; Wacker, 2017). Most state-owned enterprises provide critical goods and services to the public, such as health, energy, water, transportation, infrastructure development, and maintenance among other critical functions. State-owned enterprises in Zimbabwe have drawn the attention of many stakeholders, including researchers, because of their underperformance, which has significantly affected the provision of public goods and services to citizens, private business organizations, and many other stakeholder groups territorially (Bebber, 2017; Greenblott, 2019; Norris, 2016; Rasmussen, 2018). While the study on the importance of strategic planning capabilities has been conducted somewhat extensively, its application to the SOEs, particularly in the Zimbabwean context is quite limited. This study thus brings specific relevance to the Zimbabwean SOE sector by narrowing its focus on the application of strategic planning capabilities in managing SOE performance, contextualising a significant national concern, given the generally perceived underperformance of these SOEs and their impact on public service delivery. It is envisaged that insights on specific capabilities that are most critical for driving SOE performance will be gleaned from the study findings.

Theoretical Framework

Dynamic Capabilities Theory

Dynamic Capabilities Theory is the lens through which this study views the strategic planning capabilities of managers in SOEs and how these capabilities influence organizational performance. Dynamic capabilities refer to a firm's ability to mobilise and exploit its resources and reorganise internal and external capabilities to improve organisational performance (Efrat, 2018; Ertl, 2020). An organisation's ability to effectively and efficiently implement its strategies and achieve its set goals is premised on the extent to which it can apply its skills and competences in developing a business model that supports strategy implementation (Teece, 2018). A firm's performance, is therefore, a reflection of the organisation's deployment of its strategic competences, market intelligence, knowledge and skills to exploit opportunities that are its disposal. The operating environment is always dynamic and it is critical for firms to be agile in responding to market changes, and this requires the deployment of certain organisational competences (Hareebin, 2018; Wilden, 2013). Agility in timeously responding to market developments helps organisations to create a competitive edge over other market player, improving their achievement of set goals in the process.

The dynamic capabilities theory is relevant to strategy in five critical ways. First, dynamic capabilities inform the firm's design of its systems and procedures, for the effective implementation of its strategies (Torres, 2018). Secondly, dynamic capabilities facilitate continuous acquisition of new knowledge, skills and behaviours that support organisational performance (Pisano, 2017; Wang, 2018). Thirdly, given that the business environment continues to be volatile, dynamic capabilities capacitate managers with the requisite competences to respond to market developments with agility and dexterity (Birkinshaw, 2016; Teece, 2018; Wilden, 2013). Fourthly, dynamic capabilities capacitate a firm to marshal and array the critical resources for its effective and efficient achievement of set goals (Eisenhardt, 2000; Zapata-Cantu, 2016). Finally, dynamic capabilities give firms the flexibility to redesign their systems, processes and procedures so that they are better positioned to introduce new products, explore new markets, and grown their portfolios (Alford, 2018; Chen, 2012; Felin, 2016). The volatility and unpredictable nature of the business environment requires agility in responding to market changes in order to create competitive advantage and improve organisational performance. Dynamic capabilities, are therefore, important to firms across the whole spectrum of strategic management intervention; environmental scanning, strategy formulation, implementation, monitoring and evaluation and strategy control. can continuously adjust their resource bases in response to the variability in the business (Protogerou, 2012 ; Teece, 2018).

Zimbabwean State-Owned Enterprises (SOEs) operate in a rapidly changing economic and political environment, characterised by volatility, uncertainty, complexity and ambiguity. The Dynamic Capabilities Theory emphasises the ability od organisations to adapt, reconfigure, and renew their resources and capabilities to response to external changes, making it particularly relevant for this study context. The theory posits that strategic planning itself is a dynamic capability that enables organisations to identify opportunities, seize them, and transform their operations for competitive advantage. This facet of the theory aligns well with the study's focus on how strategic planning capabilities influence organisational performance. Further, the theory suggests that organisations with strong capabilities in strategic planning are better positioned to create competitive advantage and achieve superior performance. This provides a theoretical basis for investigating how these capabilities affect the performance metrics on the Zimbabwean SOEs.

The integration of resource management in the theory is also relevant to the study on the performance of SOEs, as the managers' dynamic capabilities in managing scarce resources for superior performance is evaluated. The Dynamic Capabilities Theory emphasises the importance of learning, innovation, and the ability to reconfigure existing capabilities, a perspective crucial for understanding how Zimbabwean SOEs can improve their strategic planning processes to local and global challenges. Overall, the theory provides a structured framework for analysing the relationship between strategic planning capabilities and organisational performance, helping in the formulation of hypotheses and identifying relevant variables, enhancing the robustness of the study. While the Dynamic Capabilities Theory has widely been applied in private sector settings, its application in public sector organisations, such as SOEs, is growing. This study contributes to the literature by exploring how these capabilities manifest and impact performance in the state-owned entities.

Literature Review and Hypotheses Development

Environmental scanning capabilities and organisational performance

The extant literature has highlighted the importance of environmental scanning in setting the foundation for effective strategy formulation and creating competitive advantage. Understanding both internal and external environmental factors (Abu Amuna, 2017; Cao, 2019; Lotayif, 2018) and various competitive forces (Green, 2018; Hin, 2012; Pryor, 2019; Robinson, 2017) is critical to firm performance. Various analysis tools such as SWOT analysis, PESTLE analysis, and Porter's Five Forces Model have been utilized in scanning the environment as organizations seek to understand their operating environment and the impact of environmental factors on their performance (Bryson, 2018; Peter, 2019; Wheelen, 2012). A number of studies that have been carried out indicate that there is a significant relationship between environmental scanning and firm performance (Agu, 2019; Lotayif, 2018; West, 1988; Maswili, 2019).

In a survey of 132 Chief Executive Officers in the United Kingdom, the study confirmed that there is a positive relationship between environmental scanning and the performance of high-tech small to medium enterprises (Karami, 2008). Another study of two Nigerian companies, Nestle Nigeria Plc and Cadbury Nigeria Plc, indicated that the evaluation of external environmental forces through environmental scanning leads to organizational productivity and profitability, as organizations can strategically position themselves to seize opportunities and avoid threats (Babatunde, 2008). The impact of environmental scanning has also been studied on bank performance in Nigerian banks using a sample of 75 bank executives, and the results indicated that banks that carried out environmental scanning out-performed those that did not (Ojo, 2008). The same study also indicated that some of the reasons certain banks had folded up were that they had failed to effectively scan their operating environment. Another study focused on the differences among companies classified as prospectors, analyzers, and defenders in scanning practices and information utilization. The major findings indicate that prospectors scan data from competitors, focusing on technological aspects and relying more on written and internal sources of information (de Lorenzi Cancellier, 2014). Significant relationships have also been confirmed between performance, as measured by return on equity, and various aspects of environmental scanning, such as interest in scanning, scanning frequency, sources of scanning, and obstacles to scanning (Lotayif, 2018). This study involved 292 United Arab Emirates (UAE) executives and found that business organizations in the UAE were more proactive and consistent in scanning the environment compared to the traditional reactive approach to environmental scanning. Based on the empirical literature, the following hypothesis is proposed.

> H_{1a}: Environmental scanning capabilities have a positive effect on the performance of SOEs

Strategy formulation capabilities and organisational performance

In strategy formulation, management crafts the organization's strategic vision and mission, core values, and objectives. Through vision casting, strategy formulation paints a picture of the preferred future of the organization and guides the prioritization of resources towards those activities that most significantly contribute towards the achievement of organizational goals (Thompson et al, 2021; Wheelen, 2012) In addition. Key result areas, performance measurement standards, and key performance indicators are also developed to measure the achievement of organizational objectives. Strategy formulation also entails the process of developing various possible alternatives and selecting the perceived best alternative(s) to achieve organizational objectives (Bryson, 2018; Wheelen, 2012). Effective strategy formulation has thus been confirmed to have a positive effect on organizational performance as it clarifies an organization’s strategic intent, guides resource allocation, and facilitates the harnessing of competencies for innovation that creates competitive advantage for the organization (Bryson, 2018; Nyamwanza, 2013; O'Shannassy, 2016).

In a case study of IBM, a global information technology giant, researchers ascribe the revival and growth of the company’s market capitalization from $30 billion in 1993 to $173 billion in 2007 to dynamic capabilities and management’s astute formulation and implementation of strategies to regain and grow lost market share (Harreld, 2007). In their conclusion, Harreld *et al* (2007) asserted that through a quantitative empirical study carried out on 372 European companies, it was established that organizational capabilities have a mediating role in the relationship between middle-level managers and firm performance (Ouakouak, 2014). The results from a study in Indonesia involving 258 respondents from small to medium enterprises in the food industry indicated that innovation has a strong positive impact on competitive advantage. The researcher concludes that high leadership orientation leads to greater competitive advantage if mediated by high levels of innovation (Samsir, 2018). This reinforces the earlier assertion from the literature that strategic leaders with dynamic capabilities, which include the drive for innovation, can significantly contribute to effective strategy formulation, which in turn leads to competitive advantage and superior organizational performance. A multiple case study of 20 Danish firms operating offshore wind farms for power generation also confirmed the importance of dynamic capabilities in creating a competitive advantage, with particular emphasis on collaboration among peer operators (Brink, 2019). A more recent study was conducted wherein a meta-analysis was performed on 43 empirical studies focusing on strategy–performance relationships. The findings show that the formal formulation of strategies has a positive influence on organizational performance (Borrero, 2020). While appreciating the value of emergent strategies in light of the volatile environment, this study also concluded that rational strategy formulation was more effective than reflexive strategies, particularly in more stable environments. All these studies underscore the importance and positive impact of effective strategy formulation on organizational performance. Thus, the acquisition and continuous improvement of dynamic capabilities for strategy formulation cannot be overemphasized. Thus, it is hypothesized that

H_{1b}: Strategy formulation capabilities positively influence the performance of SOEs

Strategy implementation capabilities and organisational performance

Strategy implementation is critical in turning an organization's plans into tangible goods and value-creating services, which contribute to superior organizational performance (Brinkschröder, 2014; Speculand, 2014). Without effective implementation, plans remain unfulfilled and organizational performance is negatively affected (Cândido, 2015; Hourani; 2017). Studies have been carried out that confirmed the positive effects of strategy implementation on organizational performance. Effective strategy implementation distinguishes high-performance organizations from other organizations that carry out the strategic planning process as routine (Hourani, 2017; Pollastri, 2020; Scaccia, 2015; Tabak, 2012). It is through incisive implementation that certain organizations create competitive edges over other players within the same industry. Various studies have confirmed the significant positive impact of effective strategy implementation on organizational performance (Charumbira, 2014; Mapetere, 2016; Mubarak, 2019; Nyamwanza, 2013; Olaka, 2017).

In a study of strategic plan quality, implementation capability, and firm performance, the Researchers have established that banks with high-quality strategic plans and high implementation capabilities perform significantly better than banks with low-quality strategic plans and low implementation capability (Hahn, 2010). Another study, involving 91 managers from Italian companies, revealed the importance of strategy maps and balanced scorecards as valuable instruments for improving the effectiveness of strategy implementation (Lucianetti, 2010). In a multiple case study involving eight SMEs in Zimbabwe, the findings indicated that there were neither forward nor backward linkages between strategy formulation and strategy implementation, which resulted in poor organizational performance (Nyamwanza, 2013). In another study that focused on the effective implementation of marketing strategies on the performance of private hospitals in Australia, the findings indicated that high-performance organizations were those that (1) made strategic changes to the organization's structure, (2) effectively communicated to employees the nature, timing, and modus operandi of the strategies to be implemented, (3) incentivized employees for effective strategy implementation, and (4) appointed employees responsible and accountable for implementing these strategies (Ogunmokun, 2005). The results of a study involving 172 Slovenian companies indicated that the greatest obstacle to effective strategy implementation is poor leadership (Tomac, 2010). Findings from the same study also revealed that employees' reluctance to share their knowledge hindered effective implementation, while the adaptation of the organizational structure to a chosen strategy during the implementation process had a positive impact on organizational performance. In another study carried out to identify the determinants of strategic success or failure in Zimbabwean profit and non-profit organizations, the findings reflected a high rate of failure among these organizations to effectively implement a strategy. The major cause of strategic failure is the inability to develop the requisite distinctive competences and resource capabilities for effective strategy implementation (Charumbira, 2014). Other studies have also drawn similar conclusions (Mapetere, 2016; Mubarak, 2019), reinforcing the importance of strategic leadership in effective strategy implementation and organizational performance. A study on commercial banks in Kenya established that there is a significant positive relationship between effective strategy implementation and two components of strategic leadership: determining strategic direction and establishing balanced organizational controls (Olaka, 2017). Thus, it is posited that:

> H_{1c}: Strategy implementation capabilities have a positive effect on the performance of SOEs.

Monitoring and evaluation capabilities and organisational performance

Monitoring and evaluating the implementation of a strategy enhances organizational performance (Moullin, 2017). Organizations need to continuously measure actual performance against standard performance to ensure that organizational objectives are met through monitoring and evaluating that performance is measured and enhanced (Keror, 2017; Neumann, 2017; Pollanen, 2017). Strategy monitoring enhances the accountability and effectiveness of resource utilization, leading to a continuous improvement in performance (Bugwanden, 2019; Guerra-López, 2015; Mehralian, 2017). Various studies have evaluated the effects of monitoring and evaluating organizational performance (Baird, 2017; Hillman, 2003; Mehralian, 2017; Mbiti, 2015; Pollanen, 2017; Teeratansirikool, 2013; Yuliansyah, 2017).

One of the studies on 101 listed companies in Thailand focused on the mediating role of performance measurement in the relationship between competitive strategies and firm performance (Teeratansirikool, 2013). The findings show that various competitive strategies have a significant and positive influence on organizational performance. Another study found that the board of directors played a crucial role in monitoring and evaluating the effectiveness of strategy implementation (Hillman, 2003). Strategy monitoring and evaluation were also found to have a significant and positive impact on the performance of public entities in a case study conducted by the Kenya Meat Commission (Mbiti, 2015). In a study of 800 Australian firms, the research findings indicate that the utilization of multidimensional performance measures positively affects the effectiveness of strategy performance measurement systems (Baird, 2017). The use of the Total Quality Management (TQM) model can positively and significantly influence the measurement of organizational performance through the Balanced Score Card (BSC) approach (Mehralian, 2017) in a study of the 30 largest pharmaceutical companies in Iran. Findings from another study involving 157 managers from financial institutions in Indonesia indicated that strategy has a mediating effect on the relationship between strategic performance measurement systems and organizational performance (Yuliansyah, 2017). The researchers thus concluded that for performance measurement systems to be effective, there is a need to develop them in conjunction with the organization's business strategies. These findings are corroborated by similar findings from another study involving 143 senior administrators from Canadian public organizations, which established that strategic performance measures of efficiency and effectiveness are positively associated with organizational performance (Pollanen, 2017). Thus, this empirical evidence provides a basis for hypothesizing that:

> H_{1d}: Strategy monitoring and evaluation capabilities positively affect the performance of SOEs.

Strategy control capabilities and organisational performance

Strategic control improves organizational performance by eliminating deviations from the strategic path and ascertaining consistent alignment with set performance standards (Hosseini, 2018; Kamala, 2019; Maresch, 2016). Pratistha (2016) asserts that there is close complementarity between strategy monitoring and evaluation, and strategic control, and the effective application of both contributes towards the improvement of organizational performance. Strategic control also entails creating a competitive advantage through the establishment of certain strategic control points in the value chain, such as strategic distribution points, information, superior production capacity, technologies, and raw material sources (Cancino, 2017; Putsis, 2020), which have a positive effect on organizational performance (Agostini, 2017; Chen, 2017; Hussain, 2019; Putsis, 2020). Various scholars have studied the relationship between strategic control and organizational performance has been studied by various scholars (Agostini, 2017; Cancino, 2017; Elbanna, 2016; Lin, 2017; Nikzat, 2019; Nuhu, 2019; Putsis, 2020; Seifzadeh, 2019).

In a study on public sector organizations in Australia that focused on the relationship between strategic control and organizational performance, the findings indicate that dynamic capabilities (specifically strategic flexibility and employee empowerment) have a mediating effect on the relationship between interactive approaches to management control and organizational performance and change management (Nuhu, 2019). Another study carried out on 142 Iranian corporations and 1,822 subsidiaries had similar findings. The authors established that a good balance between strategic and financial controls, with greater emphasis on strategic controls, resulted in an increase in both financial and market performance (Seifzadeh, 2019). Laxity in strategic control with excessive autonomy being given to lower-level managers has also been found to negatively affect effective strategy implementation and organizational performance. This was demonstrated by analyzing data from 175 four- and five- star hotels located in Gulf Cooperation Council (GCC) countries (Elbanna, 2016). In a case study of the Audit Institute of Social Security Organisation in Iran, the research findings also support the notion that managers need to pay greater attention to strategic control for the effective implementation of strategy and improved organizational performance (Nikzat, 2019). However, other studies have established that strategic control has a significantly negative impact on the performance of new business ventures. For example, this was the case in a study of 83 new ventures in China in which established firms had some equity investments (Lin, 2017). However, the same study established a significant positive relationship between operational controls and the performance of new ventures. Therefore, it is hypothesized that

H_{1e}: Strategy control capabilities have a positive effect on the performance of SOEs

The combined effect of strategic capabilities on organisational performance

The combined effect of all strategic planning capabilities–environmental scanning, strategy formulation, implementation, monitoring, evaluation, and control–yields positive organizational performance. The literature confirms that strategic planning capabilities collectively have a positive impact on organizational performance (Fahed-Sreih, 2017; Gaturu, 2017; Hughes, 2021; Muthuveloo, 2017; Taouab, 2019). Bryson etal. (2018) assert that strategic planning helps organizations achieve goal alignment, business continuity, and improvement of organizational performance. The effective execution of various strategic planning interventions, including goal formulation, crystallization and internalization, dynamic capabilities, and implementation, has been proven to significantly contribute to performance improvement in organizations (Gagne, 2018). Thus, this empirical evidence provides a basis for hypothesizing that:

H_2: Strategic planning capabilities positively influence SOE performance

The moderating effect of environmental factors on the relationship between strategic planning capabilities and organisational performance

There is empirical evidence that political, economic, socio-cultural, technological, legal, and environmental factors moderate the relationship between strategic planning capabilities and organizational performance (Adeoye, 2012; Chen, 2014; Llorca, 2016). The macroeconomic environment continues to be volatile, uncertain, complex, and ambiguous (Atan, 2018; Ibrahim, 2016; Ringov, 2017; Wang, 2012), These environmental characteristics influence the extent to which managers can apply their strategic planning capabilities to improve organizational performance (Alexander, 2018; Babatunde, 2008; Elbanna, 2016). Political factors (Guo, 2018; Sun, 2012), economic factors (Bondarenko, 2017; Dixit, 2019; McLean, 2017; Wright, 2019), sociocultural factors (Adeoye, 2012; Llorca, 2016), technology (Chen, 2017), legal factors (McLean, 2017; Sun, 2012; Wright, 2019) and environmental (ecological) factors (Kirchoff, 2016; Lee, 2015; Llorca, 2016) have been ascertained through various studies to have a moderating effect on the relationship between strategic planning capabilities and organizational performance.

In a study of Chinese firms, in which data were gathered from 214 IT and business executives, the results indicated that the relationship between IT capability and firm performance is mediated by business process agility (Chen, 2014). The study further reflected that the impact of IT capability is weakened by environmental hostility, while environmental complexity actually strengthens the impact of IT on organizational performance. The external business environment has also been confirmed to have an impact on organizational performance, measured by variables such as effectiveness, efficiency, sales increase, and corporate goal achievement through a study involving three Nigerian companies in the Food and Beverage Industry (Adeoye, 2012). In another study of 941 publicly traded manufacturing firms in the United States, the results showed that engaging in environmental management practices (EMPs) had a positive, though marginal, impact on organizational performance (Lucas, 2016). An analysis of data collected from 195 Chinese firms revealed the mediating role of institutional support and institutional entrepreneurial opportunity in the relationship between firm managers' political ties and organizational performance (Guo, 2018). An analysis of the foregoing theoretical literature and empirical evidence on the impact of environmental factors on organizational performance points to the necessity for managers to regularly analyze their external business environment and continuously develop the requisite capabilities to maintain relevant ineffective strategy formulation, implementation, monitoring, evaluation, and control. Thus, it is hypothesized that

H_3: Macroenvironmental factors have a moderating effect on the relationship between strategic planning capabilities and SOE performance.

Based on these hypothesized relationships, the conceptual framework in Figure 1 below is proposed for this study.

Conceptual Framework

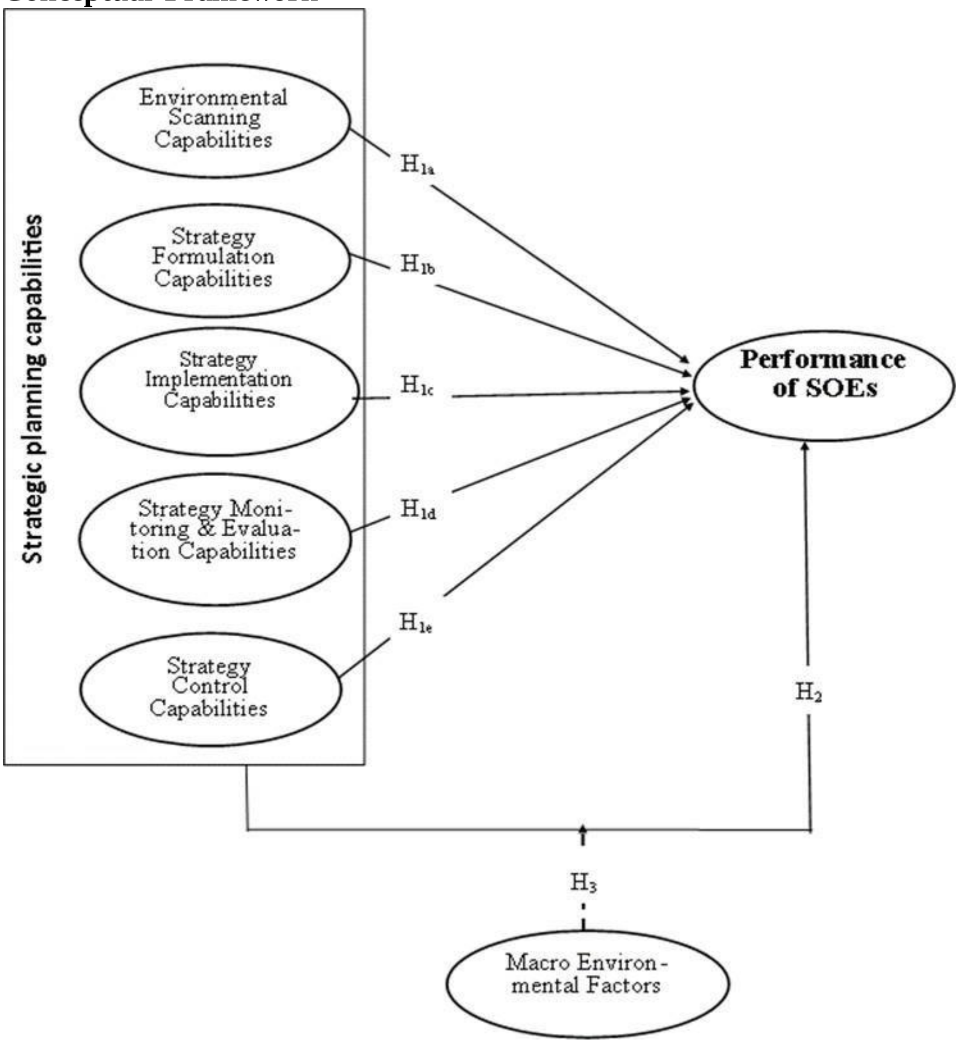

Figure 1: Conceptual Framework Source: Authors own construction (2025)

Research Methodology

The research philosophy adopted for this study was pragmatism, which focuses on the evaluation of the extent to which theories or beliefs are practically applied or implemented (Dolan, 2022; Fox, 2018). Pragmatism is pluralistic in nature, considers the practical implications of one's conceptions or interpretation of reality, making it relevant to this study, which sought to practical implications of strategic planning capabilities on organisational performance in Zimbabwean SOEs. The study employed a mixed-methods research strategy, maximising on the complementarity of both quantitative and qualitative research methods for value-adding as results obtained from the integration enriched the researchers' and practitioners' appreciation of business challenges and the solutions thereto (Dawadi, 2021; Proudfoot, 2023). The quantitative data were collected using a structured questionnaire. The quantitative analysis included response rate, reliability and validity analyses, normality tests, univariate, bivariate, and multivariate correlational analyses, (Delima, 2017; Denis, 2018; Wijenayake, 2018) and structural equation modelling (SEM). SEM shows causal relationships between the variables representing the hypotheses of the study (Hair, 2018; Latan, 2017). In addition, structural equation modelling seeks to justify the acceptance of proposed hypotheses by analyzing and interpreting the direct and indirect effects of mediators or moderators on the relationship between independent and dependent variables (Abu-Alhaija, 2019; Kumar & Uphadaya, 2017). One of the crucial assumptions of the classical linear regression model is that of a normal distribution, homoscedasticity, and correct specification of the model (Astivia, 2019; Dorokhov, 2018; Gomila, 2021; Narsaiah, 2020). In this regard, the interpretation of regression results was only performed after the normality test, heteroscedasticity test, and Ramsey RESET test for model specification (Ezeanyim, 2021; Hakim, 2017; Ogbeide, 2017).

Qualitative data were gathered through the interviews. The concepts covered during the interviews include environmental scanning, strategy formulation, strategy implementation, monitoring and evaluation, strategic control, and organizational performance. The interviews also covered the mediating role of environmental factors on the relationship between strategic planning capabilities and organizational performance. The questions in the interview guide were designed to address the research objectives, in line with the conceptual framework of the study. The qualitative data were analysed through thematic analysis, which involved the identification of vital incipient themes characterizing the phenomena under investigation (Nowell, 2017). Thematic analysis entails identifying the most recurrent important keywords, themes, or concepts, which are analysed in terms of their implications for the subject under study (Ando, 2014; Boletto, 2018; Clarke, 2014). Thus, the analysis focused on themes relating to strategic planning capabilities and organizational performance that were identified and derived from research objectives and questions. With the growing recognition and value of qualitative research, it has become increasingly important to carry out rigorous analysis that yields results that are meaningful and valid (Nowell, 2017; Roberts, 2019; Sundler, 2019). Acceptable qualitative research should demonstrate precision, consistency, and thoroughness in data analysis. Similar studies have used thematic analysis to understand the phenomena under study and what is obtained among the subjects of study (Chen, 2020; Hanafizadeh, 2020; Karavadra, 2020; Marín, 2018; Mackieson, 2019; Peterson, 2017; Xu, 2020). Sundler et al. (2019) summarized the thematic analysis process depicted in Figure 2.

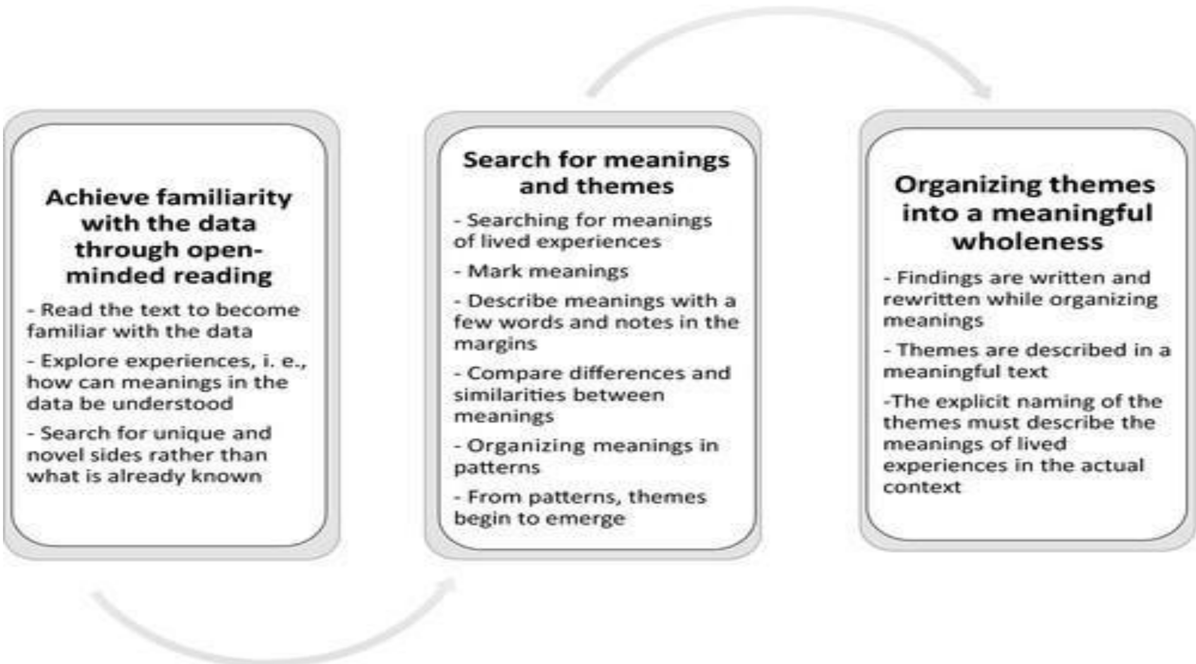

Figure 2: Summary of Thematic Analysis
Source: Sundler et al (2019)

Ethical approval for the study was granted by the Chinhoyi University of Technology, (CUT), Zimbabwe, as this was part of the corresponding author's PhD studies with the institution. A copy of the ethical clearance certificate is attached as an appendix (Appendix 1). The involved human participants their informed consent wad obtained. Informed consent for the respondents that completed the questionnaire was obtained in writing, while informed consent for the interview participants was obtained verbally, as this was clearly explained to each interviewee before the commencement of the interview. The researchers also ensured that the health, well-being and rights of the human participants were not violated or compromised, during and after the study. The study thus adheres to the Declaration of Helsinki as it observed all ethical principles that relate to human participants in a study.

Interview Respondents

Table 1 presents an overview of the interviewees who participated in the study according to their respective economic sectors. The interviewees were drawn from chief executive officers, general managers, senior executives and managers, and regional and provincial managers, including heads of sections or divisions, whom the researcher deemed to have a scope of responsibility that involved significant involvement in the strategic planning process. Most of the respondents were in the 40 to 60 years age group and had been with their organizations for periods ranging predominantly between 10 and 20 years. In addition, they held senior positions within their organizations and had sufficient knowledge of strategic management issues. Fifteen interviews were conducted, as shown in Table 1.

Table 1: Interview Respondents

Economic Sector	Number of Interviewees	Position (s)
Agriculture	1	Depot Manager (Interviewee 1)
Higher Education	3	Pro-Vice Chancellor (Interviewee 2) Registrar (Interviewee 3) Dean (Interviewee 4)
Energy & Power	2	Regional Manager (Interviewee 5) Operations Manager (Interviewee 6)
Environment	1	Finance Manager (Interviewee 7)
Financial Services	2	Regional Manager (Interviewee 8) Branch Manager (Interviewee 9)
Health & Insurance	1	Branch Manager (Interviewee 10)
Industry	1	Chief Executive Officer (Interviewee 11)
Information	1	Public Relations Manager (Interviewee 12)
Telecommunications	1	Branch Manager (Interviewee 13)
Tourism	1	Human Resource Manager (Interviewee 14)
Transport	1	General Manager (Interviewee 15)

Questionnaire response rate analysis

Table 2: Analysis of Response Rate

Category	Responses
Number of questionnaires administered	377
Questionnaires returned	312
Response rate	82.76%

A total of 377 self-administered questionnaires were distributed to the target population of all SOEs in Zimbabwe, which are one hundred and ten (110) in number. Of the 377 administered questionnaires, 312 were successfully completed and collected resulting in a response rate of 82.76%. As rule of thumb, Babbie's (2010) conceded a response rate of 70% and above as excellent.

Socio-demographic Characteristics of the Respondents

This section describes the demographic characteristics of respondents who took part in the research in which they represented their organizations as well as demographic information about the organization. On gender, as shown in Table 3, the male respondents (67%) were more than female respondents (33%). This is generally a reflection of the current situation in Zimbabwe, where more males occupy leadership positions compared to females, owing to the historical gender imbalances emanating from the traditional approach wherein the boy has generally enjoyed greater support to progress academically and professionally, compared to the girl child (Perumal, 2019).

Table 3: Demographic Characteristics of Respondents

Variable	Frequency	Percentage
Gender		
Female	103	33.01
Male	209	66.99
Age of the Respondent		
18-19	14	4.5
20-29	72	23.2
30-39	140	45
40-49	84	27
50-59	1	0.3
60 and above		
Length of Employment		
Less than 5 years	69	22.1
5-10 years	86	27.6
11-15 years	89	28.5
16-20 years	68	21.8
21 years and above		
Qualifications		
Primary Education		
Secondary Education	18	5.77
Higher & Tertiary Education	294	94.23
Age of Organisation		
1-5 years	17	5.45

6-10 years	35	11.22
11-15 years	68	21.79
16-20 years	139	44.55
21 years and above	53	16.99
Size of Organisation		
1-250	69	22.12
251-500	121	38.78
501-750	35	11.22
751-1000	51	16.35
Above 1000	36	11.54

(n = 312)

Regarding the level of education of the respondents, the majority had at least achieved higher and tertiary education, which then entails that there was a better understanding of the issues to do with the effects of strategic planning capabilities on organizational performance. Most of the respondents served their organizations for 11 to 15 years, followed by those who served the SOEs for 10-14 years. Long service in an organization means experience with the organization and thus implies possession of knowledge about the organization, and they are much involved in the various strategic planning of State-Owned Enterprises (SOEs). On the age group, the highest participating age group of the respondents are of the age 30-39 years and 40-49 year. This age is viewed as the most economically active population group, who are mature and are involved in the strategic decisions of the organization. Most respondents were at the managerial level.

These demographic results provide valuable contextual insights for understanding the perspectives of respondents regarding the effects of strategic planning capabilities on organisational performance in SOEs. The predominance of respondent with higher and tertiary education qualifications indicates a well-informed pool, with capacity to comprehend and fully articulate the phenomenon under study. Such participants are deemed to have a good grasp of complex strategic issues, which crucial for meaningful contribution to the discourse on strategic planning capabilities. The data reflects that most respondents had served their organisations for 10-15 years, relatively long tenures, highlighting significant organisational experience, familiarity with organisational processes, challenges, and historical contexts, allowing respondents to provide meaningful insights firmly grounded in practical knowledge and experience. The concentration of respondents to the age groups ranging from 30 to 49 years, who predominantly held senior management positions reflected an demographic group typically associated with maturity, implying that respondents were actively involved in strategic decision-making processes, enhancing the relevance of the findings, as managerial perspectives are crucial for understanding the practical implications of strategic capabilities.

Results and Discussion

Multicollinearity Test and Correlation Analysis

Correlation analysis is a statistical method used to establish whether a relationship exists between two datasets or variables, usually between a dependent variable and an independent variable. Variables are said to be correlated if movement in one variable is accompanied by movement in the other variable (Senthilnathan, 2019). In addition, when a relationship exists, the strength of the relationship between these variables is also measured. Such bivariate analysis was undertaken using Pearson correlation (Akoglu, 2018). It also shows the strength of the association between study variables. Further, multicollinearity can be detected by identifying variables that are highly correlated and either retain them if they are significant to our study, and if they are not highly correlated, they can be dropped if they pose severe multicollinearity or correct them. Multicollinearity implies a linear relationship between two or more explanatory variables. Multicollinearity makes it difficult to differentiate the individual effects of the explanatory variables, and regression estimators may be biased because they tend to have large variances. The Pearson correlation matrix shows that the correlation coefficients are less than 0.8, the limit or cut-off correlation percentage commonly suggested by prior studies, after which multicollinearity is likely to exist (Lindner, 2020; Senaviratna, 2019).

Table 4: Correlation and Multicollinearity Test

	Organisational Performance	Environmental Scanning Capabilities	Strategy Formulation Capabilities	Strategy Implementation Capabilities	Strategy Monitoring & Evaluation Capabilities	Strategic Control Capabilities	Environmental Factors
Organisational Performance	1.0000						
Environmental Scanning Capabilities	0.1144	1.0000					
Strategy Formulation Capabilities	0.5662	0.4446	1.0000				
Strategy Implementation Capabilities	0.3924	0.4015	0.5113	1.0000			
Strategy Monitoring & Evaluation Capabilities	0.6839	0.1586	0.5257	0.4749	1.0000		
Strategic Control Capabilities	0.4073	0.2991	0.3591	0.2849	0.4661	1.0000	
Environmental Factors	0.3977	0.4343	0.7988	0.6386	0.4606	0.4075	1.0000

Table 4 above is the Pearson correlation matrix, which shows that the correlation coefficients are less than 0.8, the limit or cut-off point on the correlation percentage commonly suggested by prior studies, after which multicollinearity is likely to exist (Akoglu, 2018). Correlation analysis results show that environmental scanning capabilities have a positive impact on organizational performance. Strategic formulation capabilities have a positive correlation with organizational performance, as depicted by the Pearson's correlation coefficient of 0.57. This implies that organizational performance increases as strategic formulation increases. The Pearson correlation coefficient of 0.39 also reflects a positive correlation between strategy implementation capabilities and organizational performance. An improvement in the effectiveness of strategy implementation has a positive effect on organizational performance. Strategic monitoring and evaluation had a significant positive impact on organizational performance, as depicted by the Pearson correlation coefficient of 0.68. A positive correlation implies that as strategic monitoring and evaluation increases, organizational performance increases. Strategic Control capabilities also have a positive influence on organizational performance, as indicated by the Pearson correlation coefficient of 0.41, implying that a greater capacity for strategic control would lead to an improvement in organizational performance. The macro-environmental factors and organizational performance were also correlated, as depicted by the Pearson correlation coefficient of 0.40. When macro-environmental factors are effectively managed to create a conducive environment, organizational performance is bound to improve.

Testing Research Hypotheses

Subsequent to identifying the factors underlying the constructs, hypothesis testing was conducted to determine the nature of the relationships between the variables under study. The variables for this study were environmental scanning capabilities, strategy formulation capabilities, strategy implementation capabilities, strategy monitoring and evaluation capabilities, strategy control capabilities, macro-environmental factors, and organizational performance. The following research hypotheses were tested.

> H_{1a}: Environmental scanning capabilities have a positive effect on the performance of SOEs
> H_{1b}: Strategy formulation capabilities positively influences the performance of SOEs
> H_{1c}: Strategy implementation capabilities have a positive effect on the performance of SOEs
> H_{1d}: Strategy monitoring and evaluation capabilities have a positive effect on SOE performance of SOEs
> H_{1e}: Strategy control capabilities have a positive effect on the performance of SOEs
> H_2: Strategic planning capabilities positively influence SOE performance
> H_3: Macroenvironmental factors have a moderating effect on the relationship between strategic planning capabilities and SOE performance.

Hypothesized relationships (H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e} and H_2.) were tested in AMOS version 21 using Structural Equation Modelling (SEM). Maximum Likelihood Estimation (MLE) was used to estimate the structural model, guided by similar previous studies (Bergh, 2017; Mitra, 2021; Rezaei, 2018). The structural equation modelling technique is ideal because it can determine relationships and also suggest a general fit between observed data and the research model (McQuitty & Wolf, 2013). Model fit indices for the structural model were satisfactory (Chi-Square Statistic (CMIN) = 3.992, Goodness of Fit Index (GFI) = 0.921, Adjusted Goodness of Fit Index (AGFI) = 0.908, Normed Fit Index (NFI) = 0.897, Tucker-Lewis Index (TLI) = 0.889, Comparative Fit index (CFI) = 0.935, and Root Mean Square Error of Approximation (RMSEA) = 0.067). Table 5 shows the results of the hypotheses tests.

Table 5: Results of Hypotheses testing (H1a, H1b, H1c, H1d, H1e and H2)

Hypotheses	Hypothesised Relationship	SRW	CR	Remark
H_{1a}	Environmental scanning capabilities → Performance of SOEs	0.352	13.028***	Supported
H_{1b}	Strategy formulation capabilities → Performance of SOEs	0.247	11.356***	Supported
H_{1c}	Strategy implementation capabilities → Performance of SOEs	0.289	8.978***	Supported
H_{1d}	Strategy monitoring and evaluation → Performance of SOEs	0.403	9.642***	Supported
H_{1e}	Strategy control capabilities → Performance of SOEs	0.397	4.128***	Supported
H_2	Strategic planning capabilities × Macro Environmental Factors → Performance of SOEs	0.198	3.716***	Supported

Notes: SRW standardized regression weight, CR critical ratio, ** significant at $p < 0.05$, *** significant at $p < 0.001$, ^{ns} non-significant.

Table 5 presents the results of the hypotheses testing, confirming the hypothesized relationships H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e} and H_2. These results imply that environmental scanning capabilities lead to an effective analysis of the operating environment, which lays a foundation for effective strategy formulation. Strategy implementation capabilities contribute towards effective strategy implementation, which, when complemented by strategy monitoring, evaluation, and control capabilities, leads to improvement in organizational performance.
Figure 3 depicts Model 1, which was used to test the relationships H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e} and H_2 with results shown in standardized formats.

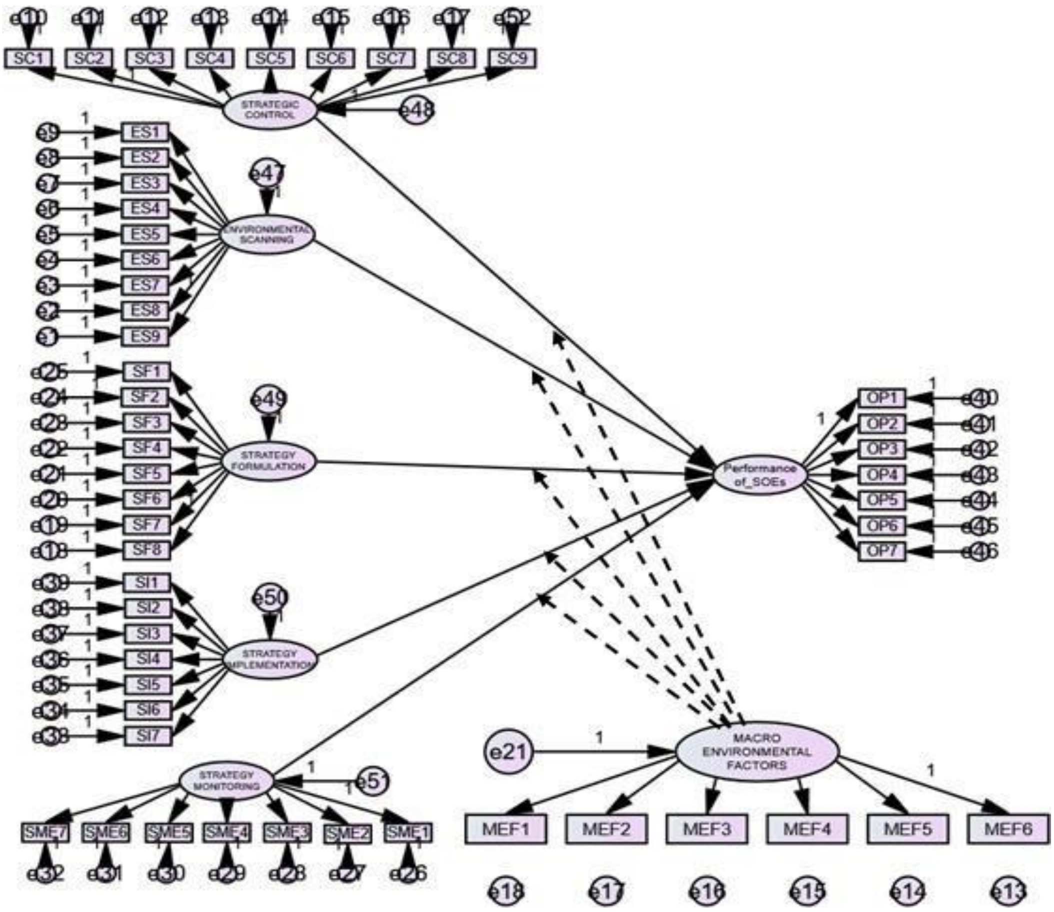

Figure 3: Model 1 for H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e} and H_2

Moderated Regression
A moderator analysis was performed to determine whether the value of a third variable (macro-environmental factors) influences or moderates the relationship between two variables: strategic planning capabilities and organizational performance. Table 6 shows the moderating effect of environmental factors on the relationship between strategic planning capabilities and SOE performance. A moderated regression analysis was used to test H_3. The results show that the coefficients for the interaction terms (strategic planning capabilities × macro-environmental factors) were significant (Beta=0.003; t-statistic=2.866; $p < 0.05$). This suggests that macro-environmental factors moderate the effect of strategic planning capabilities on the performance of SOEs. Therefore, H_3 is supported.

Table 6: Coefficients of Moderated Regression Model

Variable	Beta	t-statistic	p value
Strategic Planning Capabilities	0.004	1.483	0.000
Macro Environmental Factors	0.007	2.041	0.000
Strategic Planning Capabilities× Macro Environmental Factors	0.003	2.866	0.000

The effect of environmental scanning capabilities of SOEs on organisational performance.

One of the objectives of this study was to determine the effect of SOEs' environmental scanning capabilities on organizational performance. Thus, we hypothesized the following:

H_{1a}: Environmental scanning capabilities have a positive effect on the performance of SOEs.

There is sufficient evidence from the study findings (SWR=0.352; CR=13.028; $p < 0.05$) that environmental scanning capabilities have a positive impact on organizational performance. The results imply that an increase in the effective application of environmental scanning capabilities leads to an improvement in organizational performance. Organisational leaders that meticulously apply their environmental scanning capabilities would create a conducive environment for effective strategy formulation, which in turn when effectively implemented with sufficient monitoring, evaluation and controls would significantly contribute to an improvement in the performance of an organisation. The results also imply that a lack of environmental scanning capabilities would negatively affect organizational performance, as failure to critically analyse environmental factors and their possible impact on the business would lead to poor strategy formulation and subsequently affect the effectiveness of strategy implementation.

The results of the interviews further confirm that environmental scanning capabilities are a critical skill in the strategic planning process (Cao, 2019; Hin, 2012; Robinson, 2017). Managers who are able to expertly analyze the operating environment are better placed to formulate strategies that their organizations can leverage to create competitive advantage and attain superior performance (Abu Amuna, 2017; Green, 2018; Lotayif, 2018; Pryor, 2019). The respondents in this study generally agreed with the importance of environmental scanning in shaping organizational performance, which is consistent with previous studies (Agu, 2019; Lotayif, 2018; Maswili, 2019). The respondents, however, lamented that while their organizations scanned the environment, policy changes and political interference affected their decision-making processes, inadvertently affecting their performance. Other unforeseen developments, such as the COVID-19 pandemic, also had a significant negative impact on organizational performance, despite management having carried out a thorough environmental analysis. One of the interviewees succinctly captured the importance of environmental scanning (Regional Manager; Interviewee 8) and remarked that:

> *Scanning the environment helps you to understand the macro and micro factors that affect your business operations. It is critical to appreciate the economic situation, for example, in a hyper inflationary environment, you need to know how to plan for the short-, medium- and long term. Political dynamics also impact your business. Legal environment has its own bearing, for example certain legislation or policy frameworks have different effects on the business and its operating environment.*

These results complement the findings of previous studies (Agu, 2019; de Lorenzi Cancellier, 2014; Lotayif, 2018; Maswili, 2019) that a significant positive relationship exists between environmental scanning capabilities and organizational performance. The analysis of the operating environment prior to strategy formulation is critical because the environmental analysis outcomes provide a context within which the strategies are to be formulated and implemented (Bryson, 2018; Peter, 2019; Wheelen, 2012). Continuous environmental scanning during the formulation and implementation processes ensures that the organization is able to respond to changes in the operating environment, particularly given that the environment continues to be volatile, uncertain, complex, and ambiguous (Abu Amuna, 2017; Cao, 2019; Green, 2018; Hin, 2012; Lotayif, 2018; Pryor, 2019; Robinson, 2017).

The impact of strategy formulation capabilities of SOEs on organisational performance
The second objective was to assess the impact of SOEs' strategy formulation capabilities on organizational performance. Therefore, the second hypothesis of this study is as follows:

H_{1b}: Strategy formulation capabilities have a positive effect on the performance of SOEs.

The interpretation of the study findings (SWR=0.247; CR=11.356; $p < 0.05$) suggests that there is a positive relationship between strategy formulation capabilities and organizational performance. Therefore, effective strategy formulation by organizational leaders positively contributes to an improvement in organizational performance. Organizations that exhibit good strategy formulation capabilities would formulate great vision, mission statements, and core values, clearly define their key result areas, set smart objectives, and set critical directions for the organization to attain sustainable competitive advantage. Collectively, this would positively affect organizational performance.

The results from the interviews also corroborate evidence from previous studies that have confirmed the significant positive impact that strategy formulation capabilities have on organizational performance. The respondents in this study generally agreed with the assertion that dynamic strategy formulation capabilities are important for driving organizational performance. Therefore, SOE managers need to develop dynamic strategy formulation capabilities that can enable them to formulate good strategies and facilitate the creation of competitive advantage (Chatzoglou, 2018). These findings confirm previous studies that concluded that effective strategy formulation has a significant positive impact on organizational performance (Borrero, 2020; Brink, 2019; Ouakouak, 2014; Samsir, 2018). There is a need to adopt an integrative strategy formulation process to develop strategic capabilities that contribute towards improved organizational performance (Akaegbu, 2017; Tawse, 2018). One respondent (Interviewee 3: Registrar) commented:

> *If you don't formulate any strategy you are doomed to fail. Strategy formulation helps you to give your business direction and guides the allocation of resources to activities that drive growth. If you have a game plan then you are bound to succeed. You need to plan and respond to changes in the environment.*

Various studies have ascertained the positive impact of strategy formulation on organizational performance (Borrero, 2020; Brink, 2019; Harreld, 2007; Ouakouak, 2014; Samsir, 2018). The processes of casting organizational vision, mission, values, key result areas, performance measurement standards, and key performance indicators for measuring the achievement of organizational objectives are all critical for enhancing organizational performance (Nyamwanza, 2013; O'Shannassy, 2016). In strategy formulation, the development of various possible alternatives and selection of the perceived best alternative(s) for achieving organizational objectives (Bryson, 2018; Thompson et al, 2021; Wheelen, 2012) also contribute to superior organizational performance.

The impact of strategy implementation capabilities of SOEs on organisational performance

In analyzing the relationship between strategy implementation capabilities and organizational performance, the study hypothesized that:

H_{1c}: Strategy implementation capabilities have a positive effect on the performance of SOEs. The study findings (SWR=0.289; CR=8.978; $p < 0.05$) confirm that strategy implementation has a positive impact on organizational performance. The results are, therefore, in tandem with the hypothesis of the study that strategic implementation has a positive impact on organizational performance. Strategy implementation is crucial in transforming the organization's strategic blueprints into tangible goods and value-creating services, which contribute to superior organizational performance (Brinkschröder, 2014; Speculand, 2014). Without effective implementation, plans remain unfulfilled and organizational performance is negatively affected (Cândido, 2015; Hourani; 2017). Various studies have confirmed the significant positive impact of effective strategy implementation on organizational performance (Charumbira, 2014; Mapetere, 2016; Mubarak, 2019; Nyamwanza, 2013; Olaka, 2017).

The findings of the interviews largely support the expositions of previous researchers. Strategy implementation is very important in transforming the organization's plans into tangible goods and value-creating services, significantly contributing to superior organizational performance (Brinkschröder, 2014; Speculand, 2014). In the absence of effective implementation, plans remain unfulfilled and organizational performance is negatively affected (Cândido, 2015; Hourani; 2017). Studies have been carried out that confirmed the positive effects of strategy implementation on organizational performance. Effective strategy implementation distinguishes high-performance organizations from other organizations that carry out the strategic planning process as routine (Hourani, 2017; Pollastri, 2020; Scaccia, 2015; Tabak, 2012). Responding to the question on the impact of strategy implementation on organizational performance, one of the interviewees commented:

> *Most organisations have good blue prints but fail to implement. Poor implementation capabilities result in failure to forecast and subsequently failure to achieve set objectives. As an organisation, we have a monthly performance tracker and we generate monthly performance reports. This has helped us in improving the implementation of our strategies quite consistently (Interviewee 6: Operations Manager).*

The strategy implementation success factors highlighted by respondents also appear quite prominently in the extant literature. Some examples include resource availability (Bryson, 2018; Elbanna, 2016; Grünig, 2018 Lemarleni, 2017; Marais, 2017), prioritization (Fairbairn, 2017; Rodriguez, 2018; Philbin, 2011; Rahimnia, 2016; Wu, 2012)., employee buy-in (Bryson, 2018; Dandira, 2011; Elbanna, 2016; Esfahani, 2018), strategic leadership (Andersen, 2019; Johnson, 2018; Maddalena, 2012; Mapetere, 2016; Olivier, 2018), effective communication and feedback (Cina, 2018; Greer, 2017; Kimani, 2017), employee skills (Amoli, 2016; Irfan, 2017; Kearney, 2019), and organizational culture (Kavousi, 2016; Laforet, 2017).

The impact of strategy monitoring and evaluation capabilities of SOEs on organisational performance

The fourth objective was to evaluate the impact of SOEs' strategy monitoring and evaluation capabilities on organizational performance. Therefore, the study hypothesized the relationship between monitoring and evaluation capabilities and organizational performance and posited the following:

H_{1d}: Strategy monitoring and evaluation capabilities positively affect the performance of SOEs. The results (SWR=0.403; CR=9.642; $p<0.05$) confirm that strategy monitoring and implementation capabilities positively affect organizational performance. This implies that an improvement in strategy monitoring and evaluation would improve the components of organizational performance. These results are consistent with the hypothesis and other previous studies that also established a significant positive relationship between monitoring and evaluation capabilities and organizational performance (Baird, 2017; Mehralian, 2017; Mbiti, 2015; Pollanen, 2017; Teeratansirikool, 2013; Yuliansyah, 2017). The literature has confirmed that monitoring and evaluating the implementation of strategy enhances organizational performance, and as such, there is a need to continuously measure actual performance against standard performance to ensure that organizational objectives are met, through monitoring and evaluation that performance is measured and enhanced (Keror, 2017; Neumann, 2017; Pollanen, 2017). Strategy monitoring enhances the accountability and effectiveness of resource utilization, leading to a continuous improvement in performance (Bugwanden, 2019; Guerra-López, 2015; Mehralian, 2017).

Overall, the interview respondents concurred that monitoring and evaluation have a positive impact on organizational performance. These findings corroborate evidence from the extant literature, which shows that monitoring and evaluating strategy implementation enhances organizational performance (Bugwanden, 2019; Moullin, 2017;). Organizations, therefore, need to continuously measure actual performance against standard performance to ensure that organizational objectives are met through monitoring and evaluation that performance is measured and enhanced (Keror, 2017; Neumann, 2017; Pollanen, 2017). Strategy monitoring enhances the accountability and effectiveness of resource utilization, leading to a continuous improvement in performance (Bugwanden, 2019; Guerra-López, 2015; Mehralian, 2017). Another respondent (Interviewee 3: Registrar) was convinced that monitoring and evaluation are important in improving organizational performance, and his sentiments were as follows:

> *The adage "you inspect what you expect" applies here. Monitoring the implementation process gives us assurance that we are on course and where there are signs that we are going off course then we take corrective action. We also generate quarterly, semi-annual and annual review reports and we hold management meetings to review these reports. So, without a doubt, monitoring and evaluation is a must for our organisation to perform well and achieve its set targets.*

Various studies have confirmed the positive effects of monitoring and evaluating organizational performance (Baird, 2017; Mehralian, 2017; Mbiti, 2015; Pollanen, 2017; Teeratansirikool, 2013; Yuliansyah, 2017). Thus, managers within SOEs need to acquire and continuously improve their monitoring and evaluation capabilities if they are to positively contribute to the good performance of their organizations.

The impact of strategy control capabilities of SOEs on organisational performance

Another objective of this study was to evaluate the impact of SOEs 'strategy control capabilities on organizational performance. Thus, we hypothesized the following:

H_{1e}: Strategy control capabilities have a positive effect on the performance of SOEs.

The study found that strategy control capabilities had a positive effect on the performance of SOEs in Zimbabwe (SWR=0.397; CR=4.128; $p<0.05$). Through strategic control capabilities, managers can contribute to the improvement of organizational performance by eliminating deviations from the strategic path and ascertaining that there is consistent conformance and alignment with the set performance standards (Hosseini, 2018; Kamala, 2019; Maresch, 2016). Pratistha (2016) asserts that there is close complementarity between strategy monitoring and evaluation, and strategic control, and the effective application of both contributes towards the improvement of organizational performance. Various scholars have studied the relationship between strategic control and organizational performance has been studied by various scholars (Agostini, 2017; Cancino, 2017; Elbanna, 2016; Lin, 2017; Nikzat, 2019; Nuhu, 2019; Putsis, 2020; Seifzadeh, 2019), confirming the positive effect of the independent variable (strategic control) on the dependent variable (organizational performance).

The capability to control a business's operations to ensure that it retains its strategic direction has been confirmed to have a significantly positive effect on organizational performance (Hosseini, 2018; Kamala, 2019; Maresch, 2016; Pratistha, 2016). The interviewees concurred with this sentiment, as they acknowledged that it was critical to implement control measures that ensured that the organization's strategies were effectively implemented, positively contributing to the achievement of organizational goals. This would inadvertently result in good organizational performance, and both financial and non-financial objectives are achieved. Various studies have confirmed the relationship between strategic control and organizational performance (Agostini, 2017; Cancino, 2017; Elbanna, 2016; Lin, 2017; Nikzat, 2019; Nuhu, 2019; Putsis, 2020; Seifzadeh, 2019).

The combined effect of strategic planning capabilities on SOE performance

The combined effect of strategic planning capabilities was considered a second-order construct, and the study hypothesized that:

> H_2: Strategic planning capabilities positively influence SOE performance

The study findings (SWR=0.198; CR=3.716; $p<0.05$) confirmed that the collective effect of strategic planning capabilities has a positive influence on organizational performance. When organizational managers effectively scan the operating environment, they set a conducive environment for good strategy formulation. When effective strategy formulation is complemented with astute strategy execution coupled with monitoring, evaluation, and control, organizational performance is bound to improve. These results are consistent with findings from earlier studies (Fahed-Sreih, 2017; Gaturu, 2017; Hughes, 2021; Muthuveloo, 2017; Taouab, 2019), which confirmed the significant positive contribution of strategic planning capabilities to organizational performance.

The significant positive effect of the different variables that constitute strategic planning capabilities has a cumulative combined positive effect on organizational performance. Some previous studies have confirmed the complementarity of the various strategic planning capability variables in positively impacting organizational performance (Agostini, 2017; Cancino, 2017; Pratistha, 2016; Seifzadeh, 2019).

The moderating effect of environmental factors on the relationship between strategic planning variables and SOE performance.

The seventh objective of this study is to determine the moderating effect of environmental factors on the relationship between strategic planning variables and SOE performance. Therefore, it was hypothesized that

> H_3: Macro-environmental factors play a moderating role in the relationship between macro-environmental factors and SOE performance.

The results (Beta=0.003; t-statistic=2.866; $p < 0.05$) suggest that macro-environmental factors moderate the effect of strategic planning capabilities on the performance of SOEs. There is empirical evidence that political, economic, socio-cultural, technological, legal, and environmental (ecological) factors moderate the relationship between strategic planning capabilities and organizational performance (Adeoye, 2012; Chen, 2014; Llorca, 2016). The macroeconomic environment continues to be volatile, uncertain, complex, and ambiguous (Atan, 2018; Ibrahim, 2016; Ringov, 2017; Wang, 2012), These environmental characteristics influence the extent to which managers can apply their strategic planning capabilities to improve organizational performance (Alexander, 2018; Elbanna, 2016). Political factors (Guo, 2018; Sun, 2012), economic factors (Bondarenko, 2017; Dixit, 2019; McLean, 2017; Wright, 2019), sociocultural factors (Adeoye, 2012; Llorca, 2016), technology (Chen, 2017), legal factors (McLean, 2017; Sun, 2012; Wright, 2019) and environmental (ecological) factors (Kirchoff, 2016; Lee, 2015; Llorca, 2016) have been ascertained through various studies to have a moderating effect on the relationship between strategic planning capabilities and organizational performance. It is therefore important that organizational leaders understand the operating environmental complexities so that where there is scope, they can take advantage of the environmental factors to create competitive advantage on one hand, while on the other hand, where the environmental factors militate against the organization's performance, efforts should be made to minimize or completely eliminate the negative impact of these factors on the relationship between strategic planning capabilities and organizational performance.

These findings validate evidence from previous studies on political factors (Guo, 2018; Sun, 2012), economic factors (Bondarenko, 2017; Dixit, 2019; McLean, 2017; Wright, 2019), sociocultural factors (Adeoye, 2012; Llorca, 2016), technology (Chen, 2017), legal factors (McLean, 2017; Sun, 2012; Wright, 2019) and environmental (ecological) factors (Kirchoff, 2016; Lee, 2015; Llorca, 2016). With this evidence, the need to manage these environmental factors so that they do not negatively affect organizational performance cannot be overemphasized.

Conclusion

Based on the study findings, various conclusions were drawn. The study sought to determine the effect of SOEs' environmental scanning capabilities on organizational performance. From the study findings and the interpretation of the results, there is adequate evidence that effective environmental scanning positively influences organizational performance. The implication is that when organizations effectively scan both the internal and external environments prior to formulating their strategies, there is scope for improving organizational performance as formulation, implementation, monitoring, evaluation, and control will be executed within the context of a known operating environment. Continuous scanning of the internal and external environments would also assist in ensuring that the organization's strategy remains relevant. The impact of strategy formulation capabilities is also assessed in this study. The study findings indicate that strategy formulation indeed has a significant positive effect on organizational performance. The results imply that astute strategy formulation has the potential to positively contribute to the improvement of organizational performance. Organizations that invest in strategy formulation increase their scope to achieve their set objectives as a clear organizational vision is crafted, and relevant mission statements, core values, and key result areas are clearly outlined to guide the organization's operations.

This study evaluates the impact of strategy implementation capabilities on the performance of SOEs. The study findings confirm that effective strategy implementation positively influences the performance of an organization. The implication of these results is that organizational managers have strategy implementation capabilities and effectively apply their expertise, which can contribute to the positive performance of their organizations. Failure to implement a strategy effectively is likely to negatively affect organizational performance. The impacts of strategy monitoring and evaluation capabilities on organizational performance were also evaluated. The results support the hypothesis that strategy monitoring and evaluation capabilities have a positive impact on the performance of SOEs. The results imply that over and above formulating and implementing organizational strategy, there is a need to ensure that managers have the requisite monitoring and evaluation capabilities to ensure effective implementation, which positively contributes to organizational performance.

This study seeks to evaluate the impact of strategy control capabilities on the performance of SOEs. The study findings confirmed a positive correlation between strategy control capabilities and SOE performance. Therefore, it is incumbent upon managers of SOEs to develop strategy control capabilities and effectively apply their expertise in ensuring that any deviations from the strategic path are corrected and that the strategy control function positively contributes to the improvement of organizational performance. This study sought to determine the combined effects of strategic planning capabilities on SOE performance. The results support the hypothesis that, collectively, the different variables that constitute strategic planning capabilities have a significant positive effect on organizational performance. The import of this result is that organizational managers need to have a full set of strategic planning capabilities so that they can see through the entire strategic planning process, environmental scanning, strategy formulation, implementation, monitoring, evaluation, and control, so that they significantly contribute to the performance of their organizations.

Another objective of this study was to determine the moderating effect of environmental factors on the relationship between strategic planning capabilities and SOE performance. The results confirm that environmental factors moderate the relationship between strategic planning capabilities and SOE performance. This implies that SOE managers need to identify the environmental factors that impinge on their operations, develop the requisite capabilities to effectively navigate the operating environment, and ensure that the entire strategic management process effectively contributes to positive organizational performance.

Implications of the Study on Theory

Strategic management is very important in organizational performance, and as such, the development and continuous improvement of strategic planning capabilities cannot be overemphasized. The findings largely confirmed previous studies that posited the importance of strategic planning capabilities in general. The specific application of strategic planning capabilities to the improvement of SOE organizational performance, which was the focus of this study, is quite novel and, as such, the study made a significant contribution to strategic management theory. Previous studies have identified strategy implementation success factors in general and their application to private sector organizations. In this study, greater focus was placed on the application of strategy implementation success factors and their application to the SOE sector. The moderating effect of environmental factors on the relationship between SOE strategic capabilities and performance was another significant contribution to theory, as this area has not been studied extensively in the past.

The measurement of organizational performance, in both financial and non-financial terms, is important in evaluating the extent to which an organization achieves its objectives or otherwise. In addition, it helps in ascertaining whether an organization has the capacity to operate sustainably as a going concern. Management in SOEs requires a cultural shift towards a culture that promotes appropriate scanning of the operating environment, facilitating effective strategy implementation, regularly monitoring and evaluating the implementation process, and administering effective controls to ensure that their respective organizations remain on course and achieve their set objectives.

Implications on Policy and Practice

The study findings have the potential to inform policies for setting the appropriate tone for improving the performance of SOEs. From the study findings, while managers were generally aware of the various strategic management processes, the existence of SOE strategic planning capabilities is limited. Therefore, it is recommended that the government formulate and implement a policy on the training of SOE managers in strategic management concepts and principles so that these managers have the requisite strategic planning capabilities. The traditional approach, wherein SOEs overly depend on subsidies for sustainability risks, perpetuates a culture of paying very little or no attention to factors that influence organizational performance. Against this background, it is recommended that the government continue to identify SOEs that can be privatized so that there is a greater orientation towards building a business-like culture and ensuring self-sustenance among SOEs. In addition, the importance of measuring performance in both financial and non-financial terms risks being lost in SOEs, if there is no deliberate focus on enculturating performance measurement. It is therefore recommended that the government formulate and effectively implement a policy that enforces the acquisition and continuous improvement of strategic planning capabilities among the managers that run SOEs, particularly the aspects of setting performance measures and the capability to measure organizational performance both financially and non-financially. It is further recommended that the recently established Department of Monitoring and Evaluation in the Office of the President and Cabinet spearheads the training of SOE managers on strategy implementation monitoring and evaluation as part of building the capacity to develop monitoring and evaluation capabilities. The government can partner with institutions of higher education and industry practitioners with expertise in strategic management to build teams that can train SOE managers in SOEs and develop strategic planning capabilities, and impart expertise in performance measurement.

Limitations and Implications on Future Research

In light of the importance of SOEs, further studies could focus on factors other than strategic planning capabilities that influence organizational performance. Future studies could also focus on the impact of strategic planning capabilities on organizational performance in the private and NGO sectors, given that organizational performance is also an important concept in these sectors, requiring attention and continuous improvement. The moderating effect of environmental factors on the relationship between strategic planning capabilities and organizational performance can also be studied in the private and NGO sectors, considering that organizations in these sectors also formulate and execute their strategies in the same dynamic operating environment. Organizational managers across all sectors need to acquire and continuously improve strategic planning capabilities, given the critical role they play in improving organizational performance. The study on measurement of organizational performance, both in financial and non-financial terms, may also be explored for the private sector. Measurement of organizational performance is as important in the operations of SOEs as it is in the private and NGO sectors. Another potential area of study is a comparative study on the strategic planning capabilities of managers across the SOE, private, and NGO sectors and how this influence organizational performance in these sectors. The application of these capabilities in improving organizational performance could also be studied by industry across the public, private, and NGO sectors, such as manufacturing, engineering, agriculture, transport, financial services, insurance, tourism, and mining. Organizational performance, measured in both financial and non-financial terms, could also be another area of study.

Disclosure of Interest

All authors did not have any competing interests in this study and as such, they were not conflicted.

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Authors' Contribution

The initial draft of the manuscript was developed by the corresponding author, being an extract from his PhD thesis. The second and third authors were supervisors and their contribution was in reviewing the manuscript and making recommendations on improvements to the content of the manuscript. The fourth, fifth, sixth and 7th authors largely reviewed the literature and contributed towards the study's contribution to theory, policy and practice.

Data Availability Statement

The data for this study is available and can be provided upon request.

Ethical Clearance

The principal researcher was granted ethical clearance from the institution with which he was studying for the PhD, Chinhoyi University of Technology (CUT), Zimbabwe.

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Developing a cyber-security governance framework for Zimbabwe's local authorities: Challenges and Solutions

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ABSTRACT

The study investigated challenges faced by Zimbabwe's local authorities when developing a cyber-security governance framework. This study employed exploratory research which induced a qualitative study guided by the interpretivist philosophy. The case study surveyed Harare, Bulawayo, Gweru, Masvingo and Mutare local authorities. Semi-structured interviews were used to gather data, and forty respondents were chosen using purposive sampling. The study employed structural coding and thematic analysis as data analysis techniques and the software tool used for coding and data analysis was Maxqda. In addition, document review, social media and literature review were used to triangulate data from interviews to strengthen validity and reliability of the study. The results of the study show that the presence of politics, economic hardships, lack of adaptability to technological changes, obsolete IT infrastructure, and lack of corporate governance practices are major factors which negatively affect the development of a cyber-security governance framework for Zimbabwe local authorities. As such, the study proposed a model with measures to counter these challenges. The proposed model enhances risk management processes, improve regulatory compliance, increase stakeholder confidence, and improve operation efficiency in Zimbabwe local authorities. However, the major limitation of the study was that, only views from the selected five urban local authorities were obtained out of ninety-two local authorities in Zimbabwe.

Key words: Cyber-security, Governance, Challenges, Framework, Local authorities

Introduction

The study investigated challenges faced by Zimbabwe local authorities when developing cyber-security governance framework. Cyber-security governance refers to technological practices, establishing frameworks and policies which safeguards organisations from cyber-threats (Shaker et al., 2023). In the context of this study, cyber-security governance is the protection of Zimbabwe local authorities' computer application systems, data and network infrastructure from cyber-threats. Developed nations and their organisations had put systems and frameworks in place which govern cyber-security. Correspondingly, the growth in the use of technology and adoption of information technology governance frameworks like the National Institute of Standards and Technology (NIST), Control Objectives for Information and Related Technologies (COBIT), Information Technology Infrastructure Library (ITIL), and ISO 38500 has shown chances for the economic growth to people and organisations using cyber-space (International Telecommunication Union (ITU) (2024). These frameworks guide organisations in managing risks, decision making, compliance and accountability. Similarly, Zimbabwe information security is being administered by the Cyber and Data Protection Act, 2021, a framework for data security and cyber-security management (Government of Zimbabwe, 2021).

However, the growing of technologies has caused nations world-wide including Zimbabwe to be exposed to cyber-threats (Zimbabwe National Risk Assessment Report, 2021). Additionally, cyber-threats have a huge impact on the sustainability of businesses and the economy. Globally, popular cyber-attacks lead to identity theft, corporate extortion, and loss of confidential information and customer databases (Africa Cyber-Security Report, 2024). In Zimbabwe, both private and public organisations including local authorities are more exposed to vulnerabilities such as computer related forgery and frauds, data espionage, identity theft, phishing attacks, hacking, and online harassment among others (Bulawayo 24, 2021). Zimbabwe local authorities are failing to mitigate these cyber-threats because they encounter a lot of predicaments when developing a cyber-security governance framework. Thus, the study provided a model with measures to mitigate setbacks which hinder the process of developing a cyber-security governance framework. This paper comprises of the introduction, literature review, methodology, results findings, discussion and the conclusion.

Objectives of the study

a. To identify challenges faced when developing a cyber-security governance framework for Zimbabwe local authorities.
b. To propose a model with solutions to mitigate cyber-security governance framework challenges.

Literature review

Cyber-security governance in Zimbabwe local authorities

The Constitution of the Republic of Zimbabwe provides a system of local government which facilitates social-economic development with a vision of improving infrastructure for urban and rural towns (Government of Zimbabwe, 2013). Zimbabwe local authorities govern the affairs of the local citizens through elected councillors and appointed technocrats (Dube, 2019). Zimbabwe local authorities provides public service delivery to the nation, and this includes water supply and sanitation, waste management, urban and rural development, roads and infrastructure, health services, education services, and community development and social services. The Zimbabwe National Development Strategy 2 (2025 – 2030) framework empowers local authorities to embrace digitalisation and adopt the key principles of cyber-security governance in order to improve service delivery and attain Zimbabwe Vision 2030.

Like any other government institutions in the world, Zimbabwe local authorities are digitalising to ensure that they provide an effective service delivery under a low-cost operation (Government of Zimbabwe, 2021). In May 2021, Zimbabwe local authorities through the Ministry of Local Government Public Works and National Housing introduced the Local Authorities Digital System (LADS) which comprises of the Enterprise Resource Planning (ERP) System and an Integrated Financial Management Information System. The LADS electronically link local authorities in Zimbabwe for procurement, project management, risk control, compliance, fiscal performance, budgets and expenditures, and financial statements (Ministry of Local Government Public Works and National Housing, 2022). Thus, LADS is being launched to all Zimbabwean local authorities in line with information technology governance programmes.

However, the introduction of digitalisation and the management of cyber-security governance in local authorities come with its challenges, given the economic meltdown of developing countries and political interference (Kabwe et al., 2024). In addition, Kabwe et al. (2024) argue that the issues of lack of skilled personnel and insufficient regulatory frameworks contribute more to the challenges faced by local authorities when they develop their information technology governance frameworks.

Theoretical framework

The study was guided by the Game theory. The Game Theory postulates how organisations and their people (called players) connect to make strategic decisions about business operations and situations (Katz & Butler, 1994). In addition, the Game theory enables the modelling of interaction, resolves conflicts and enables organisations to make tactical choices (Ho et al., 2022). However, the theory is subjective and requires judgement and expertise when implementing. In the context of this paper, the theory provides a strategic direction and governance principles by the local authority boards and all their stakeholders on identifying cyber-security governance challenges and putting strategies to counter the challenges.

Empirical review

The studies conducted by different researchers in developing countries have indicated the development of information technology governance frameworks and the digitalisation of organisations and government institutes. A study conducted by Ramodula and Govender (2020) highlighted that scarcity of resources, corruption, and mismanagement were challenges which obstructed the development of local governance systems in South Africa. To mitigate these challenges, the scholar recommended that South African Municipalities were to adopt corporate governance practices of transparency, accountability and citizenship participation. Correspondingly, a study conducted by Kabwe et al (2024) concluded that lack of information communication technology infrastructure affected negatively the process of digitalisation in Zambian local authorities. Furthermore, a comprehensive study conducted by Mutoya (2024) pointed out that devolution and the alignment of Zimbabwean laws with the Constitution of Zimbabwe improves service delivery of Zimbabwe local authorities. However, these studies indicate that there was a gap concerning challenges faced by Zimbabwe local authorities when developing a cyber-security governance framework. Thus, the study wanted to fill the gap by investigating these challenges and coming up with a model to counter them.

Conceptual framework

The conceptual framework of this study reflects on the need to identify challenges faced by Zimbabwe local authorities when developing and cyber-security governance framework and coming up with strategies to mitigate the challenges. Figure 1 summarises the conceptual framework of the study.

Figure 1: Conceptual framework of the study (Source, Primary data)

Methodology

The study adopted the interpretivism which enabled the researchers to improve their deep perceptions into cultural meanings that form individual behaviour. In addition, an exploratory research design which motivated the use of qualitative data was employed. The exploratory research design made the researchers to explore the study from different dimensions (Saunders, 2024). The study population was chosen from the five urban local authorities namely Cities of Harare, Bulawayo, Gweru, Mutare and Masvingo. The local authorities had a population of 17292 employees (Ministry of Local Government Public Works and National Housing, 2023). These local authorities had advanced information technology infrastructure as compared to Municipalities, Town Councils and Rural District Councils and, they shared same organisational structures (Ministry of Local Government Public Works and National Housing, 2023). Thereafter, a sample of forty respondents that is eight from each local authority was selected through purposive sampling technique. Amongst the eight respondents, four came from top management and the other four were from information technology department. These respondents had knowledge of formulating and implementing information technology governance frameworks.

Data was collected through semi-structured interviews, document analysis and social media platforms. A pilot study was conducted first to improve the semi-structured interview guide. The semi-structured interviews took an average of thirty minutes to an hour and they enabled the interviewer to get detailed responses and probe responses whenever he needed clarity. In addition, the interviewees were coded in alphabetical order from A to Z and A1 to M1 to remain unidentified and, local authorities were given codes namely X1, X2, X3, X4 and X5. With the interviewee's consent, the interviews were recorded using a cell phone. Editing of the transcribed text was done through listening and grammatical errors were corrected. Furthermore, data analysis software Maxqda was used to analyse interview transcripts, and secondary documents gathered on cyber-security governance. Also, it was used to explore themes. Social media platforms were used to analyse the current state and challenges of Zimbabwe local authorities and the anticipated outcomes and preferred standards by the general population. Thereafter, data was triangulated. As noted by Miles and Huberman (1994), triangulation of data improves trustworthiness, integrity and dependability of research findings.

Ethical consideration

The Chairperson of Chinhoyi University of Technology Research and Innovation Committee granted authority to conduct the research through a clearance letter with reference number GRSD 17 SEBS 30/2023.The research clearance letter was submitted to the responsible authorities of the five selected local authorities under study who granted permission to conduct the study via letters and emails.

Research findings and data analysis

Challenges faced by Zimbabwe local authorities when developing a cyber-security governance framework

Corporate governance issues

The interviewee's response underscored a collection of corporate governance issues that impeded the development of a strong cyber-security governance framework for Zimbabwe local authorities. These included corruption, lack of accountability, lack of independence of the local authority boards, transparency, non-disclosure of conflict of interests and favouritism/nepotism. Furthermore, the interviewees highlighted that lack of independence among the board of directors lead to prejudiced decision-making which obstructed the formulation of robust cyber security governance framework. This suggests that corporate governance issues weakened efforts to formulate an effective cyber-security governance framework. Interviewee A, a top manager at from local authority X1 opined that:

> *The challenges faced by Zimbabwe local authorities in developing a cyber-security governance framework are mostly centred on corporate governance issues. These include bribery, dishonesty and lack of accountability*

Lack of Expertise

The interviewees underscored that the lack of personnel with cyber-security governance understanding posed as a significant challenge in the development of a cyber-security governance framework. Zimbabwe local authorities lacked personnel with knowledge and skills required to effectively develop and implement a cyber-security governance framework. Interviewee R, an IT expert from local authority X3 opined that:

> *There is lack of ICT expertise in Zimbabwe local authorities. For example, Zimbabwe local authorities started recruiting ICT managers around 2019 or 2020. All along, ICT administrators who were under the Finance department oversaw ICT in Zimbabwe local authorities.*

In addition, interviewee D, an IT expert from local authority X1 also opined that:

> *Having leaders in Zimbabwe local authorities without a background of ICT is creating more problems because they lack knowledge on how to advocate for an ICT governance framework.*

Economic hardships

The interviewees argued that the absence of enough resources in Zimbabwe local authorities hindered Zimbabwe local authorities the capabilities to capitalise in a cyber-security ecosystem. Additionally, the interviewees noted that economic hardships, including a volatile economy and hyperinflation, pose serious problems to developing a cyber-security governance framework for Zimbabwe local authorities. Furthermore, the interviewees underscored that inadequate funding for IT projects also posed as a significant challenge. Interviewee A1, a manager from local authority X1 stated that:

> *The economic factors affect the distribution of resources, exchange rates, inflation rates and interest rates.*

Political Influence

The interviewee's mentioned that Zimbabwe local authorities were affected by politics which had an impact on their decision-making processes. According to the interviewees, politicians had an influence towards decisions made by Zimbabwe local authorities, formulation of government policies, and legislations. In addition, the interviewees argued that most Councillors who sit in local authority boards had a limited understanding of cyber-security governance. Furthermore, the interviewees highlighted that the political differences between elected members of parliament, administrators, and technocrats had a negative impact on cyber-security policy formulation. Interviewee O1 a manager at local authority X5 said that:

> *The political influence in Zimbabwe delays the formulation of effective cyber-security governance policies.*

Technological Changes.

The interviewees indicated that a rapid change in technology was another challenge which was being faced by Zimbabwe local authorities when developing a cyber-security governance framework. The interviewees also noted that the quick technological advancements required a perpetual modification and investment, which was difficult to withstand given the economic hardships in Zimbabwe and lack of expertise. The interviewees added that the lack of expertise was caused by low salaries and benefits which made it difficult for Zimbabwe local authorities to attract and retain qualified personnel in the field of cyber-security and IT governance. Interviewee Y, an IT expert at local authority X3 opined that:

We have obsolete IT infrastructure in Zimbabwe local authorities. There are no qualified personnel to administer IT due poor remuneration by Zimbabwe local authorities.

Lack of training and cyber-security awareness

The interviewees highlighted that there was lack of cyber-security awareness and training among employees in Zimbabwe local authorities and their stakeholders. Additionally, they mentioned that the general lack of cyber-security understanding and awareness by stakeholders such as law enforcement agencies, the judiciary, and the responsible Ministry of Local Government Public Works and National Housing as well as the society was a challenge in the development of a cyber-security governance framework for Zimbabwe local authorities. Interviewee I, an IT employee at local authority X2 opined that:

> *Zimbabwe is still at its early stage in fighting cyber-criminals. The citizens are not even aware on how to tackle cyber-security related issues. There is lack of cyber-security training among the citizens and the council officials.*

Role of Zimbabwean government in developing a cyber-security governance framework for Zimbabwe local authorities

Enactment of legislation and policy formulation

The interviewee's highlighted that the Zimbabwean central government contributes to the development of a cyber-security governance framework through the sanctioning of a helpful legislation and providing a policy framework for local authorities to follow in their cyber-security mitigation efforts. This underscores the significance of government participation in founding regulatory and compliance systems to address cyber-security challenges and secure information and critical infrastructure. Furthermore, the interviewee's argued that the central government owns the police and the courts, which are important in combating cyber-threats. This underlines the government's role in supporting law enforcement agents and the judicial in addressing cyber-security challenges. Thus, it is the government's obligation to address socio-political, economic, and cultural matters that may weaken cyber-security efforts. Interviewee F a manager at local authority X1 opined that:

> *To address cyber-security challenges, the government should enact legislation and formulate a cyber-policy which governs the day-to-day operations of Zimbabwe local authorities. This policy can be used as a benchmark by both the public and private organisations when formulating their IT governance frameworks. Legislation can be used to deter cyber-criminals from committing cyber-crimes.*

Emerging themes

The study employed structural coding and thematic analysis as data analysis techniques. According to Miles and Huberman (1994) structural coding is the use of question-based codes which act as a labelling and indexing device, allowing researchers to quickly access data likely to be relevant to a particular analysis from a large data set. In addition, Saldana (2021) define thematic analysis as a methodical process of classifying, examining, and reporting themes within the data. The process of structural coding and thematic analysis enabled the researchers to identify the most recurring patterns which emerged from the interviews. Two major themes emerged from the interviews were identified and summarised as follows: Cyber-security challenges and role of the government.

Cyber-security challenges

> *The major challenge is that there is lack of ICT expertise in Zimbabwe local authorities' structures (Interviewee C).*
>
> *Having members without a background of ICT in top management or board creates a lot of problems because they lack the knowhow on how to advocate for an ICT framework (Interviewee Z).*
>
> *The challenges include political influence, economic constraints, social issues, technological changes, legal framework, and environmental factors. They all affect the development of a cyber-security governance framework. (Interviewee W).*
>
> *The key challenges include funding, staffing issues, and remuneration concerns which collectively hinder the development of effective cyber security governance frameworks within Zimbabwe local authorities (Interviewee E).*
>
> *Resource constraints due economic hardship and lack of leadership support contribute more to challenges faced when developing a cyber-security governance framework (Interviewee S).*
> *There is no transparency and accountability in the way in which Zimbabwe local authorities are managed (Interviewee T)*

The focus is on buying top of the range vehicles and the payment of hefty salaries to top management rather than putting effort in building cyber-resilience institutions (Interviewee Q).

The major challenge is that corruption is rampant in Zimbabwe local authorities from the grassroots to top management (Interviewee A).

Role of the government

Government being the governing board set guidelines for its departments, and they can borrow these from developed countries (Interviewee B).

There is need for a blueprint, or a cyber-security governance framework at national level which can be used for benchmarking. (Interviewee N)

The significant role which the central government play in developing a cyber-security governance framework is on the enactment of laws and legislations in fighting cyber criminals (Interviewee D1).

The government also ensures compliance of all the enacted legislations through monitoring and evaluation. (Interviewee E1)

Discussion of findings

The major objective of the study sought to elicit views on challenges faced by Zimbabwe local authorities when developing a cyber-security governance framework. Overall, the respondents' response underscores key challenges which include funding constraints, staffing issues, remuneration concerns, economic challenges, political interferences, lack of innovation, and corporate governance shortcomings, which collectively disrupt the development of an effective cyber security governance framework for Zimbabwe local authorities. These results concur with a study conducted by Atem (2025) and Thornhill (2014) who provided a complete analysis on IT governance challenges in local authorities emphasizing resource constraints, corruption, politics, lack of regulatory frameworks and enforcement as key areas of concern. In addition, Ncamphalala and Vyas-Doorgapersad (2022) argue that challenges related mostly to leadership affected the process of digitalisation in local authorities. Correspondingly, Mironga and Mironga (2022) points out that the lack of independent board members in local authorities' boards indicates the absence of checks and balance on the balance of power. However, the result of the study contradicts with Dube (2019) whose findings pointed to centralisation of state powers as the main bottleneck at Zimbabwe local authorities that pose challenges for technological growth, and sustainability.

The results of the study also put an emphasis on the central government's position in determining cultural norms, endorsing sound policies and regulations, fighting corruption and cyber- crimes, and offering law enforcement and judicial support. Similarly, a study conducted by (Mutoya, 2024) points out that the type of political system and government in place significantly affect cultural values and beliefs, and corporate governance practices of organisations. A study conducted by Sibanda and von Solms (2019) underscores the importance of a strategic approach by the government for an effective and viable implementation of cyber-security governance framework for local authorities. This suggests that a secure and effective government safeguards a comprehensive cyber-security governance system for Zimbabwe local authorities.

Recommendations

The study contributed to the body of knowledge by proposing a model as shown in Figure 2 with measures to counter challenges faced by Zimbabwe local authorities when developing a cyber-security governance framework. The model enhances effective operations, improved risk management process and ensures regulatory compliance for Zimbabwe local authorities. Furthermore, the output of the study can be used as a benchmark by government departments and the private sector in developing countries when formulating and implementing their cyber-security governance policy.

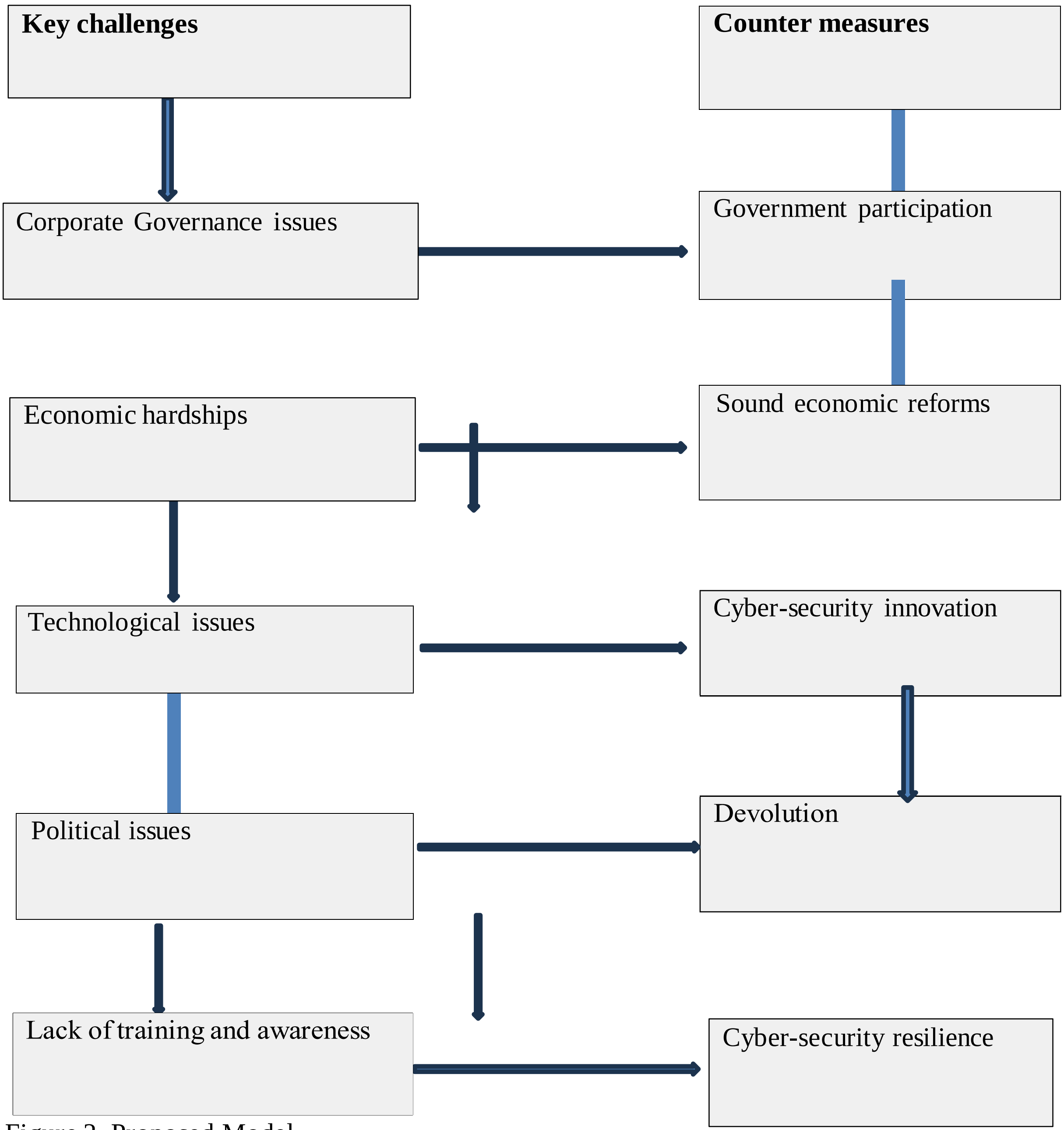

Figure 2. Proposed Model.

Government participation and economic reforms

The government of Zimbabwe should be involved in the development of cyber-security governance framework for Zimbabwe local authorities through provision of leadership, policy formulation, legislation and compliance. This includes introducing a model for economic growth and social harmony, while also guaranteeing fairness and justice. According to Chundu et al. (2025), the government promote good governance by recruiting competent personnel and putting deterrence measures which punish those who contravenes cyber laws, statutes and corporate governance principles.

Cyber-resilience

Zimbabwe local authorities should have the ability to foresee, survive, and moderate cyber-incidents and threats. This involves the incorporation of cyber-security culture from the grassroots up to leadership level. According to Gcaza (2017), cyber security culture refers to the norms and values, and familiarities of the staff of an organisation with respect to cyber security. Cyber-security culture can be incorporated through training of employees on cyber- security related issues and conducting awareness campaigns. Thus, Zimbabwe local authorities must incorporate a proactive approach to manage cyber-security risk and secure information.

Cyber-security Innovation

Zimbabwe local authorities should develop an innovative mind set which genuinely comprehends the values of cyber-security governance. Savas and Karata (2022) defines cyber-security innovation as a process of addressing cyber-threats through creating new technologies and systems like artificial intelligence, machine learning and cloud-based solutions to prevent and detect all forms of cyber-attacks. Thus, innovation enhances Zimbabwe local authorities to improve in decision making, foster a culture of agility within cyber-security governance framework, manage cyber-risk in a better way, and reduce costs.

Devolution

Chakunda and Matega (2024) define devolution as the decentralisation of power from the national government to regions, provinces, districts and local authorities. Nyikadzino and Vyas-Doorgapersad (2022) argues that the devolution of governmental powers warrants the acknowledgements of local governments as lawful and independent entities and supports their ability to problem-solving. In the context of Zimbabwe local authorities, devolution enables community involvement when formulating cyber-security governance policies, and incorporates different stakeholders, ensures independence of the local authority boards thereby improving the best practices of good corporate governance.

Conclusion

Considering the above outcomes, the study concluded that poor corporate governance, lack of expertise, economic hardships, political influence, technological changes, centralisation of decision making, and lack of training and awareness on cyber-security issues were the major challenges which affected the development of a cyber-security governance framework for Zimbabwe local authorities. Furthermore, the study revealed that the government has a responsibility to formulate policies which governs the development of a cyber-security governance framework. Lastly, a model with measures to counter cyber-security governance challenges was proposed. These measures include government participation, sound economic reforms, cyber-resilience, cyber-security innovation, and devolution.

Limitations of the study

The authors acknowledge that the outcomes of this research were based on the perspectives of participants from the only five selected urban local authorities in Zimbabwe out of ninety-two local authorities. Opinions from rural district councils were not gathered hence, the generalizability of the study is narrow. However, the study outcomes could be customized and lowered to fit the requirements of cyber-security governance for Municipalities, Town Councils and Rural District Councils.

Areas of future research

Future research should focus on a quantitative study focusing on both urban and rural authorities developing a model with measures to counter challenges faced when developing a cyber-security governance framework.

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Institutionalizing Governance reforms for curbing corruption in Zimbabwe's State-Enterprises.

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ABSTRACT

This study develops a governance-based institutional framework to curb corruption in Zimbabwe's state-owned enterprises (SOEs), where entrenched corruption has eroded service delivery, economic stability, and public trust. Despite numerous legal and institutional reforms, corruption remains pervasive, highlighting the ineffectiveness of current anti-corruption strategies. Drawing on qualitative content analysis of 30 empirical studies published between 2010 and 2025, this research integrates Principal agent theory, Institutional Theory, X-inefficiency Theory, Stakeholder Theory, and Expectancy Theory to diagnose systemic corruption drivers and propose context-specific interventions. Studies were purposively selected based on their focus on corruption in SOEs, governance practices, and reform initiatives in resource-constrained settings. Key findings identify weak regulatory enforcement, political interference, limited funding of oversight institutions, and inadequate stakeholder participation as critical enablers of corruption. The study proposes a multi-theoretical framework combining legal reform, digital governance tools, stakeholder engagement, and performance-based accountability mechanisms. The resulting model offers a practical, theory-based framework reflecting Zimbabwe's governance realities. It provides actionable strategies to promote transparency and rebuild trust in SOEs, with potential relevance for governance reforms in other developing countries.

Key Words: Corruption, anti-corruption, Anti-corruption framework, state enterprises and governance approach

Introduction

Corruption within Zimbabwe's state-owned enterprises (SOEs) remains a formidable barrier to sustainable development, public service delivery, and investor confidence. Despite successive institutional and legal reforms, these entities continue to exhibit deep-rooted governance failures manifested in procurement fraud, high-level corruption, political patronage, and administrative inefficiencies. These persistent challenges highlight a critical research gap: the lack of a contextualized, theory-informed framework that holistically addresses the structural and behavioural drivers of corruption in SOEs.

This study addresses that gap by proposing a governance-based institutional framework tailored specifically to Zimbabwe's socio-political realities. Guided by five complementary theories—Principal–Agent Theory, X-inefficiency Theory, Institutional Theory, Stakeholder Theory, and Expectancy Theory—the research seeks to answer two key questions: (1) What systemic and institutional factors enable persistent corruption in Zimbabwe's SOEs? and (2) What kind of governance-based framework can effectively mitigate these factors and promote accountability?

Principal–Agent Theory illustrates how weak oversight, information asymmetry, and poorly aligned incentives allow SOE managers (agents) to prioritize self-interest over public mandates from the state (principal). X-inefficiency Theory highlights internal operational slack and resource misallocation caused by corruption and weak performance incentives. Institutional Theory explains how the erosion of formal rules and dominance of informal practices—such as selective enforcement and impunity—undermine governance structures. Stakeholder Theory emphasizes the need for inclusive governance mechanisms that engage civil society, employees, and minority actors to enhance transparency and legitimacy. Expectancy Theory explores how the lack of credible performance-linked rewards and sanctions demotivates ethical behaviour among public officials.

Using qualitative content analysis of 30 empirical and policy-based studies, the paper develops an evidence-based model emphasizing stakeholder engagement, regulatory reform, ethical leadership, and performance-driven incentives. The novelty of this framework lies in its integration of theoretical constructs with practical implementation strategies that are adaptable to other resource- constrained and post-colonial contexts. By grounding reform strategies in local governance dynamics, this study contributes both to anti-corruption theory and to the design of actionable policy tools for transforming Zimbabwe's public enterprises.

Corruption within state-owned enterprises (SOEs) is a pervasive global issue undermining economic growth, governance integrity, and public trust. Across both developed and developing countries, major corruption scandals from Brazil's Petrobras (Encyclopædia Britannica, n.d.) to Malaysia's 1MDB (Mazumdaru, 2020) have revealed how SOEs can become vehicles for elite enrichment, political patronage, and fiscal mismanagement. Despite various international conventions and reform frameworks, such as the United Nations Convention Against Corruption (UNCAC), the problem persists due to institutional weaknesses and political interference.

In the African context, the corruption crisis in SOEs is particularly severe. Countries such as Nigeria, Kenya, and South Africa have witnessed high-profile cases involving billions of dollars in losses through mismanagement and fraudulent procurement practices. These failures have had dire developmental consequences, including deteriorating public services, eroded investor confidence, and reduced state capacity. While many African governments have enacted anti-corruption laws and established oversight institutions, implementation remains sporadic, often hindered by limited political will and systemic impunity.

Zimbabwe exemplifies the complex challenge of corruption in the public sector. Over the past two decades, its SOEs critical to delivering public services and supporting economic activity—have been plagued by persistent governance failures and rampant corruption. Enterprises such as the

Zimbabwe National Roads Administration (ZINARA), National Railways of Zimbabwe (NRZ), and the Grain Marketing Board (GMB) have all been linked to financial mismanagement, inflated contracts, nepotism, and unaccounted expenditures. Public confidence in these entities has plummeted, while their operational viability continues to decline. Although legal instruments such as the Public Entities Corporate Governance Act (2018) and ZIMCODE (2014) were introduced to strengthen oversight, enforcement has been weak and inconsistently applied.

This research focuses on institutionalizing governance reforms within Zimbabwe's SOEs by developing a tailored anti-corruption framework. It draws lessons from global and regional experiences while grounding its analysis in the Zimbabwean context. The goal is to identify practical, theory-informed solutions that can help restore accountability, improve service delivery, and rebuild trust in public institutions.

Current State of SOEs in Zimbabwe

Zimbabwe, like many developing African nations, continues to grapple with pervasive corruption that obstructs sustainable development and good governance (Mutema & Kanyane, 2024; Chilunjika et al., 2022). Far from episodic misconduct, graft has become structural, infiltrating political, economic, and civil institutions. Its most common forms abuse of office, procurement favoritism, nepotism, bribery, embezzlement, and systematic mismanagement of public resources signal an entrenched culture of impunity (Dannaoui et al., 2024; Transparency International, 2018).

Empirical evidence underscores the depth of the problem. Afrobarometer's 2018 survey found that 81 % of Zimbabweans regarded corruption as a "very serious" national issue, while the 2019 Corruption Perceptions Index ranked the country 160th of 180, indicating a governance crisis that distorts markets, erodes the rule of law, and constrains inclusive growth.

State-owned enterprises which are central to service delivery and industrial participation, are among the hardest hit. Bonga (2021) identifies chronic capital misallocation, unchecked graft, obsolete infrastructure, limited access to finance, and unsustainable debt as mutually reinforcing pathologies that have left many SOEs effectively incapacitated. Corruption undermines operational viability, squeezes efficiency, and stifles innovation and accountability within these entities (Chigudu, 2021). Their under-performance ripples through the economy: essential goods and services go undelivered, poverty and inequality deepen, and public discontent intensifies.

The macro-economic drain is staggering. Transparency International Zimbabwe estimates that graft siphons almost US $1 billion from the fiscus each year, depriving priority sectors such as education, health, and infrastructure of vital resources, widening the fiscal deficit, and slowing capital formation. Lost revenue simultaneously deters foreign direct investment (FDI) by signalling high regulatory risk and opaque market conditions. In human terms, these leakages translate into overcrowded hospitals, poorly equipped schools, and deteriorating transport networks, all of which undermine labour productivity and entrench cyclical poverty.

Heightened risk perceptions also raise the cost of capital, forcing the government to rely on expensive short-term borrowing or concessional aid, further constraining fiscal space and long-term development planning. International creditors remain cautious, and domestic investors move funds into safer often unproductive assets, exacerbating capital flight and currency volatility.

Similar patterns are observed across Southern Africa, yet Zimbabwe's fiscal losses relative to GDP are among the most severe, underscoring the distinctive urgency of its governance crisis.

Beyond material losses, corruption corrodes public trust. Citizens increasingly view state institutions, including oversight bodies such as the Zimbabwe Anti-Corruption Commission (ZACC)—as either complicit or ineffective because of political interference, inadequate funding, and weak prosecutorial powers (Hupile & Siambombe, 2024; Chosani et al., 2024; Mandisodza, 2024). Eroded confidence weakens the social contract: tax compliance falls, civic engagement wanes, and reform initiatives struggle for legitimacy. Unchecked corruption also distorts electoral incentives, enabling patronage networks that prize loyalty over competence.

Table 1 Summarises emblematic SOE corruption cases, illustrating the breadth of the challenge and underscoring the urgency of robust, targeted reforms.

Table 1: Corruption Scandals in Zimbabwe over the years

YEAR	CORRUPTION SCANDAL	AMOUNT (US$)
2005	ZISCO Steel	US$500 000
2007	Reserve Bank of Zimbabwe (RBZ) Mechanization Programme.	US$200 000 000
2015	Marange Diamonds	US$15 000 000 000
2016	Command Agriculture	US$3 000 000 000
2019	National Social Security Authority	US$90 000 000
2020	Drax International LLC	US$60 000 000
2022	COTTCO	US$5 000 000

Source: Authors (2025)

An analysis of Table 1 reveals the widespread and deeply embedded impact of corruption within Zimbabwe's state-owned enterprises (SOEs) (Marumahoko, 2021; Chidoko, 2023). Transparency International (2018) described corruption in Zimbabwe as "rapidly becoming a way of life," illustrating how unethical practices have become institutionalized. The frequent emergence of scandals suggests a severe breakdown in integrity and accountability mechanisms within public institutions (Matambo et al., 2022; Chosani et al., 2024).

To address this, the Zimbabwean government has implemented various anti-corruption strategies, including the Public Entities Corporate Governance Act (2018) and the Zimbabwe Corporate Governance Code (ZIMCODE, 2014). Despite establishing what appears to be a solid governance framework, the actual enforcement and implementation have been ineffective. Literature highlights several persistent barriers to reform, notably political interference, inadequate resources, and poor enforcement capabilities.

The National Prosecuting Authority (NPA), tasked with enforcing accountability, has been criticized for underperformance and vulnerability to political manipulation. These shortcomings allow corruption to persist within SOEs, raising a pivotal question: What institutional model could effectively reduce corruption in this context? This study aims to critically assess the institutional environment and propose a governance-based framework specifically designed to tackle corruption in Zimbabwe's SOEs.

Problem Statement

Despite several reform initiatives, corruption in SOEs remains deeply rooted due to fragile institutional structures, patronage networks, and insufficient oversight mechanisms (Chiduku, 2021; Ndoma, 2021). These problems are exacerbated by recurring political and economic instability, which perpetuates institutional decay. The study sought to contribute by proposing a new, context-specific institutional framework that integrates international anti-corruption best practices with Zimbabwe's local realities.

Literature Review

Global Context of SOE Corruption

Globally, state-owned enterprises (SOEs) play a pivotal role in strategic sectors such as energy, transportation, and communication. However, they are also disproportionately vulnerable to corruption due to their hybrid nature, operating commercially while being politically controlled (OECD, 2019; World Bank, 2021). The OECD (2019) asserts that SOEs are often captured by political elites who manipulate procurement and appointments for personal gain. The 1Malaysia Development Berhad (1MDB) scandal, where billions were siphoned off through fraudulent transactions facilitated by political appointees, illustrates the consequences of weak governance in SOEs (Wright & Hope, 2021). Similarly, the Petrobras scandal in Brazil involved systematic kickbacks from contractors to politicians and executives, highlighting the exploitation of SOEs as tools of political patronage and self-enrichment (Watts, 2017; Transparency International, 2023).

In Africa, notable scandals such as Eskom and Transnet in South Africa showcase how procurement fraud and cadre deployment have crippled service delivery and national economies (Zondo Commission, 2022). These cases demonstrate the commonality of issues such as nepotism, regulatory capture, and the politicization of oversight institutions across jurisdictions (AfDB, 2021). The implications of such corruption extend beyond financial loss, undermining public trust and eroding state legitimacy.

Zimbabwean Context: Corruption, Collapse, and Economic Deterioration

In Zimbabwe, SOEs have experienced prolonged institutional decay, undermining their capacity to contribute to national development. Once key drivers of employment and industrialization, entities such as the National Railways of Zimbabwe (NRZ), Cold Storage Company (CSC), and the Zimbabwe Iron and Steel Company (ZISCO) have collapsed under the weight of mismanagement and corruption (Chiduku, 2021; Mlambo & Sibanda, 2018). The Auditor General's Reports from 2016 to 2023 consistently point to massive irregularities, including inflated procurement, unaccounted expenditures, and poor contract management (Auditor General of Zimbabwe, 2023). Furthermore, board appointments in Zimbabwean SOEs are often politicized, with loyalty trumping competence. This has fostered an environment of impunity and bureaucratic inefficiency (Maibeki et al., 2021).

Theoretical Perspectives

Principal–Agent Theory (Incentive Misalignment Lens).

Recent work on SOE governance underscores how weak state oversight and opaque boards magnify agency loss in publicly owned firms (Zejnullahu, 2021). In Zimbabwe, qualitative evidence shows inflated procurement costs and limited consequence management for errant executives, confirming the same principal–agent pathologies (Muzapu & Murewa, 2021).

X-Inefficiency Theory (Internal-Efficiency Lens).

Contemporary efficiency studies find that stronger corruption control reduces technical inefficiency across countries (Kutlu & Mao, 2023). Mixed-ownership reforms have also been found to curb agency costs and improve investment efficiency inside SOEs (Huo, Zhao, & Dong, 2024). These findings validate Leibenstein's original insight while providing up-to-date, empirical evidence.

Institutional Theory (Structural–Normative Lens).

Recent evaluations highlight that selective enforcement, patronage, and politicised appointments remain core institutional weaknesses that enable SOE corruption (OECD, 2023). These findings mirror Zimbabwe's experience.

Stakeholder Theory (Governance-Inclusivity Lens).

OECD guidance stresses that bringing minority investors, employees, and civil-society observers onto SOE boards improves transparency and reduces undue influence affirming stakeholder theory's call for inclusive governance (OECD, 2023).

Expectancy Theory (Motivational Lens).

A recent survey of 2,710 public servants shows that clear, credible rewards and whistle-blower protection significantly increase intentions to report corruption. This supports expectancy theory's assumptions about motivation in the public sector (Potipiroon, 2024).

Integrative Insight.

Together, these five lenses trace corruption across multiple levels:

- *Micro* – Principal–agent and expectancy theories explain why public officials deviate when honest effort is not rewarded.
- *Meso* – X-inefficiency theory shows how such deviations lead to operational slack and inefficiency.
- *Macro* – Institutional and stakeholder theories expose regulatory failure and the exclusion of critical governance voices.

The proposed anti-corruption framework therefore combines hard controls (e.g., digital procurement dashboards, performance-linked contracts) with soft institutional reforms (e.g., merit-based appointments, whistle-blower protection, multi-stakeholder boards), offering a theory-informed, context-sensitive intervention strategy for Zimbabwe's SOEs.

4.4 Legal and Institutional Anti-Corruption Frameworks

To address SOE corruption, Zimbabwe introduced legal and institutional reforms. The Zimbabwe Corporate Governance Code (ZIMCODE, 2014) set out principles of transparency, accountability, and integrity for public and private entities. It was followed by the Public Entities Corporate Governance Act (2018), which mandates performance contracts, board evaluations, and compliance reporting (Muzapu & Murewa, 2021). These frameworks aim to professionalize SOE governance and eliminate political interference.

On the institutional front, Zimbabwe has established multiple anti-corruption bodies. The Zimbabwe Anti-Corruption Commission (ZACC) has a constitutional mandate to investigate, educate, and prevent corruption. The Special Anti-Corruption Unit (SACU), established in the Office of the President, focuses on high-level corruption cases. Zimbabwe also set up anti-corruption courts in all provinces to expedite prosecutions and reduce judicial delays (The Herald, 2023).

Internationally, Zimbabwe is party to the United Nations Convention against Corruption (UNCAC) and the SADC Protocol against Corruption, signaling its intent to align domestic efforts with global standards (UNODC, 2021). Despite this extensive legal architecture, corruption remains rampant, suggesting a disconnect between policy and implementation.

Implementation Challenges and Critical Gaps

A major impediment to the success of anti-corruption frameworks is inconsistent political will. Investigations are often selective and fail to secure convictions, eroding public confidence. Between 2019 and 2023, ZACC opened hundreds of cases but secured very few high-profile convictions (Transparency International Zimbabwe, 2023).

The commission's operational autonomy is compromised by budgetary dependence. Between 2011 and 2014, ZACC received only a fraction of its requested budget, constraining its investigative and outreach capacities (Kamhungira, 2017). The situation has not improved significantly, with reports of staff shortages and inadequate investigative tools (Chosani et al., 2025).

Moreover, overlapping mandates among anti-corruption bodies have led to turf wars and duplication of effort. For instance, the police, ZACC, SACU, and National Prosecuting Authority sometimes conflict over jurisdiction, creating loopholes that suspects exploit (Machakaire, 2017).

Worryingly, ZACC itself has been embroiled in corruption scandals. Its former CEO was convicted of embezzling operational funds (Nemukuyu, 2015), and other officials have faced suspension over similar allegations. These internal breaches of integrity have deepened public cynicism and raised questions about the credibility of anti-corruption institutions.

Critical Appraisal and Knowledge Gaps

Although numerous studies detail corruption in SOEs, few examine how governance reforms can be institutionalized in politically charged environments. The literature tends to focus on descriptive analyses, with limited attention to the interplay between political economy dynamics and institutional reform outcomes (Dandaratsi et al., 2022). There is also a paucity of longitudinal studies evaluating the effectiveness of existing legal frameworks such as the Public Entities Corporate Governance Act.

Moreover, studies rarely explore the lived experiences of whistleblowers, civil servants, or compliance officers within SOEs. Their insights could enrich understanding of the operational challenges and informal power structures that sustain corruption. Additionally, while international case studies (e.g., Petrobras, Eskom, 1MDB) are instructive, comparative studies focusing on how similar economies have successfully implemented SOE reforms are scarce.

This study contributes to closing these gaps by proposing a governance model rooted in institutional theory, emphasizing accountability, merit-based leadership, and the depoliticization of oversight bodies. It also adds empirical depth by analyzing case-specific challenges and successes within Zimbabwe's SOE sector.

Towards a Coherent Governance Reform Agenda

Effective SOE reform must go beyond paper-based compliance and address root causes. This includes reforming the appointment process for board members to prioritize competence over patronage, strengthening ZACC's independence through direct parliamentary funding, and harmonizing the mandates of anti-corruption agencies to improve coordination.

Digital technologies such as e-procurement and blockchain for audit trails offer promising avenues to reduce human discretion in decision-making (World Bank, 2021). Rwanda's adoption of performance contracts (Imihigo) for public officials and Ethiopia's institutional auditing reforms provide examples of how African countries can tailor governance innovations to local contexts (AfDB, 2021).

Ultimately, Zimbabwe must foster a culture of integrity that transcends leadership changes. This requires ethical leadership, civic engagement, and the institutionalization of anti-corruption education from primary to tertiary levels. By aligning governance reforms with both international best practices and domestic political realities, Zimbabwe can build resilient institutions capable of withstanding elite capture and driving sustainable development.

Methodology

Inclusion and Exclusion Criteria

This study adopted a literature-based approach, analyzing 30 peer-reviewed articles published between 2018 and 2024. Articles were included if they: (1) were from reputable journals; (2) addressed corruption, governance, or public sector reform in developing or resource-constrained contexts; (3) applied qualitative, conceptual, or empirical methods relevant to framework development; and (4) provided full-text access. Excluded articles: (1) focused solely on private-sector corruption; (2) were not in English; (3) lacked methodological rigor; or (4) were editorials/opinions without empirical grounding. A database search using keywords like "corruption," "state-owned enterprises," and "governance" on Scopus, Web of Science, and Google Scholar yielded 76 articles. Screening by title, abstract, and full-text review based on criteria narrowed this to 30.

Content Analysis Approach

Qualitative content analysis was chosen for its strength in unpacking complex, context-specific issues like corruption (Krippendorff, 2018). It allows systematic coding of text into content categories using explicit rules (Neuendorf et al., 2016).

The process involved:

a. Data Familiarization- Close reading of all articles to understand context.
b. Initial Coding-Inductive identification of key issues (e.g., "political interference," "lack of enforcement").
c. Theme Development- Grouping codes into overarching themes such as governance, legal frameworks, institutional integrity, and innovation.
d. Framework Construction – Identifying recurring patterns and relationships among themes to build a conceptual framework specific to SOEs in resource-constrained settings.

This approach builds on methods used by Boyko et al. (2024), Magakwe (2024), and Hope (2024), who synthesized complex literature in low-resource, politically sensitive contexts.

Limitations

Being literature-based, this study is limited by the quality and availability of existing work. Selection bias may arise from database restrictions and the exclusion of non-peer-reviewed literature. Subjectivity in coding, though minimized through systematic analysis, remains a potential issue. Empirical validation of the framework is recommended in future research.

Results and Discussion

The study identifies a network of interlinked drivers sustaining corruption in Zimbabwean SOEs, including weak governance, poor oversight, and normalization of unethical behavior.

Root Causes of Corruption in SOEs

Transparency and Accountability Deficits

74% of SOE employees reported a lack of financial or procurement disclosures. Studies (Machivenyika, 2017; OECD, 2020) confirm that irregular reporting and opaque systems enable corruption. Borges & Kraimer (2019) noted that 61% of SOEs lacked formal procurement protocols. Only 18% had accessible audit reports (Abbasi, 2023), undermining public oversight.

Weak Oversight and Controls

Only 27% of SOEs conduct regular internal audits, and fewer than 40% implement recommendations. Oversight mechanisms suffer from resource and training gaps (Zimunya et al., 2022; Makinde, 2023). Political interference affects 43% of board appointments, weakening control systems (Transparency International, 2019).

Poor Compensation for Employees.
71% of public servants earn below the poverty line (Ruwende et al., 2023). Mpofu (2023) found 67% engage in informal income sources. Low pay correlates with corruption tolerance (Bure, 2018; r = 0.68). In Brazil and Zimbabwe, underpaid public workers were 3.2 times more likely to rationalize corruption (Da Costa et al., 2023).

Weak Enforcement and Judicial Inefficiency.
Only 15% of SOE-related corruption cases led to prosecution (ZACC, 2023), mostly targeting junior staff. With just 28 specialized investigators for over 100 SOEs (Makinde et al., 2023), enforcement capacity is stretched. Court delays average 3.7 years per case (Chitiyo & Makaudze, 2022).

Patronage and Political Appointments.
52% of executives were appointed without open competition (Matebese, 2024). Zinyemba (2022) found that patronage-linked SOEs had poor performance records. Promotions are widely perceived as non-meritocratic (82%), contributing to 37% turnover in key departments. Similar issues are reported in Pakistan and Albania (Abbasi et al., 2019; Tahiraj, 2014).

Ethics Training Deficiency.
Only 19% of SOEs provide regular ethics training (Mpofu, 2023). Most employees (63%) have never received any anti-corruption training. Institutions with annual ethics programs showed 28% fewer misconduct cases (Hejeebu & George, 2020), highlighting the value of structured training.

Limited Access to Information & Whistleblower Protection.
Only 9% of SOEs offer online access to financial or procurement records (Auditor-General, 2024). 78% of staff fear retaliation for whistleblowing (Septiningsih, 2024). Where protection laws exist, reports increase 3.5 times (Makinde & Le Billon, 2023). In Zimbabwe, only four whistleblower cases were prosecuted in five years.

Failure to Prosecute Senior Officials.
Despite the National Prosecuting Authority's mandate, high-ranking officials rarely face charges. Less than 10% of SOE corruption probes implicate senior actors (Zinyama, 2018; Muguchu & Maja, 2019). The Afrobarometer (2022) found 71% of respondents believed senior officials are "above the law." High-profile arrests often lack follow-through, reducing public trust.

Institutional Framework for Curbing Corruption
Tackling corruption in SOEs requires a comprehensive, multi-pronged strategy rooted in governance reform and stakeholder collaboration.

Enhancing Transparency and Accountability
Transparency and accountability must form the foundation of any anti-corruption strategy. Collaboration among public institutions, private entities, and citizens is vital (Fagbadebo, 2020). Drawing on international corporate governance standards can help build robust systems that monitor compliance, penalize misconduct, and restore public confidence.

Advancing Research and Data-Driven Solutions
There is a significant knowledge gap in corruption-related data. Research is essential for identifying trends, measuring impact, and informing targeted responses (Kariuki & Misaro, 2013; World Bank, 2022). A national corruption information management system would support evidence-based planning and policy development.

Strengthening Legal and Regulatory Frameworks
Reform efforts should focus on harmonizing laws, eliminating loopholes, and enforcing anti-corruption statutes consistently. Current inconsistencies in legislation enable offenders to evade justice. Policies should also support and protect whistleblowers (World Bank, 2018).

Investing in Education and Ethics Training
Training is vital for fostering ethical cultures in the public sector. Successful models from South Africa, such as the DPSA program, demonstrate the value of structured training for public servants at all levels (Van der Merwe, 2006; DPSA, 2010). Training should use diverse delivery methods, including digital platforms and local languages.

Empowering Civic Participation
Community involvement can pressure institutions to uphold accountability. Public campaigns and grassroots activism, as seen in Sudan and Nigeria, demonstrate the potential of civil society to demand reform (Kirby, 2019; Gladstone & Specia, 2020; Aina, 2020). A passive population enables corruption; active participation can disrupt it.

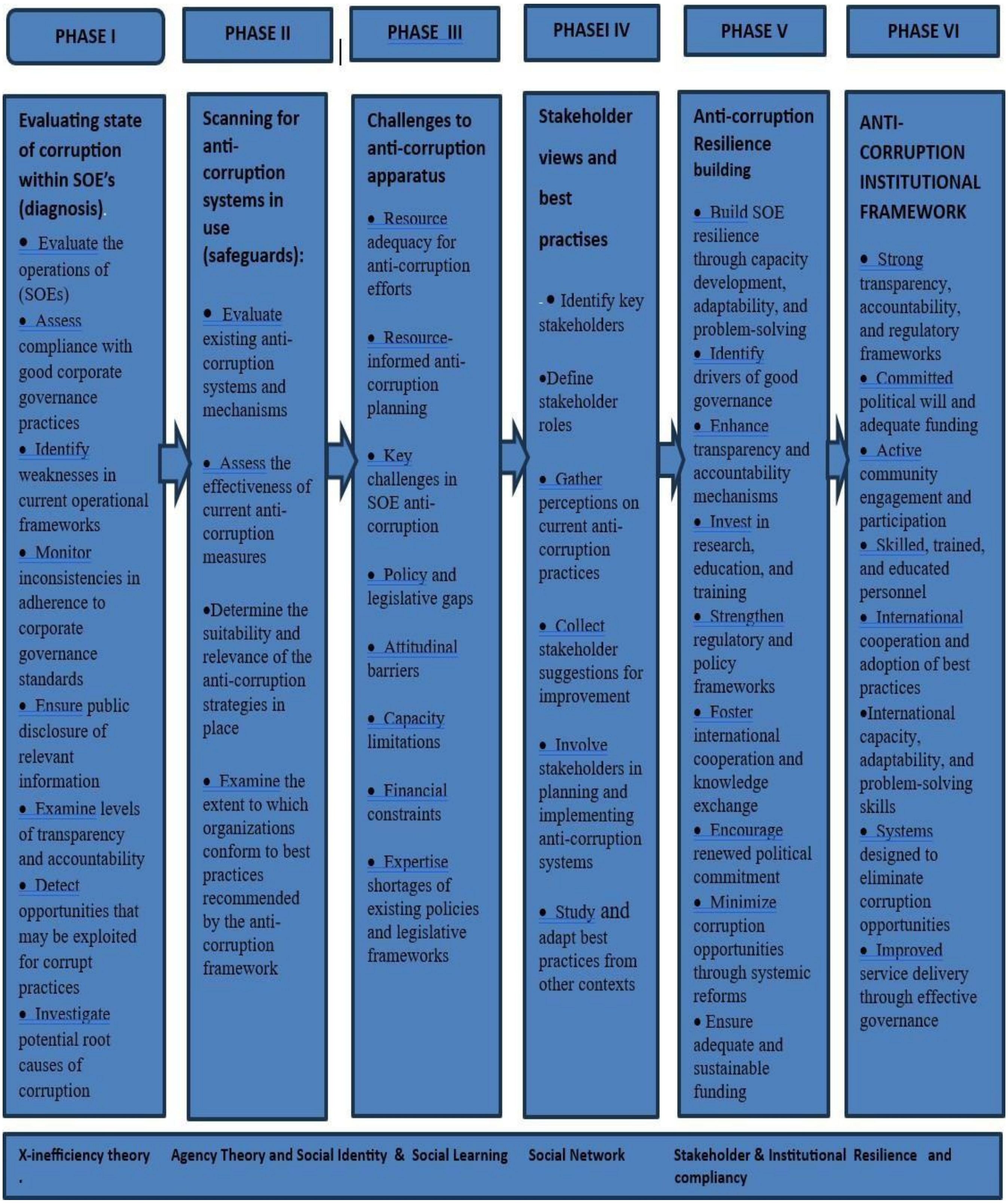
Strengthening International Cooperation
International actors can provide technical support, resources, and legal assistance, especially in cross-border corruption cases. Global partnerships can enhance Zimbabwe's compliance with international anti-corruption norms.

Reviving Political Will
According to Zinyama (2018), strong political will is critical to anti-corruption success. Sustainable reforms require leaders to commit to zero tolerance for corruption and to hold both peers and subordinates accountable.

Increasing Financial Support for Anti-Corruption Bodies
Underfunding of anti-corruption agencies hampers progress. Adequate resourcing is essential for recruitment, capacity building, and the deployment of investigative tools. Without this, frameworks remain symbolic and ineffective.

The Proposed Institutional framework for effectively curbing corruption in state-owned entities in Zimbabwe

a. **Phase I:** Evaluating state of corruption in SOEs, **Phase II:** Scanning for anti-corruption system in use, **Phase III:** Challenges to anti-corruption apparatus, **Phase IV:** Stakeholder views and best practises, **Phase V:** Resilience building, **Phase VI**: Anti-corruption Institutional framework.


PHASE I
PHASE II
PHASE III
PHASEI IV
PHASE V
PHASE VI
Evaluating state of corruption within SOE's (diagnosis).
• Evaluate the operations of (SOEs)
• Assess compliance with good corporate governance practices
• Identify weaknesses in current operational frameworks
• Monitor inconsistencies in adherence to corporate governance standards
• Ensure public disclosure of relevant information
• Examine levels of transparency and accountability
• Detect opportunities that may be exploited for corrupt practices
• Investigate potential root causes of corruption
Scanning for anti-corruption systems in use (safeguards):
• Evaluate existing anti-corruption systems and mechanisms
• Assess the effectiveness of current anti-corruption measures
•Determine the suitability and relevance of the anti-corruption strategies in place
• Examine the extent to which organizations conform to best practices recommended by the anti-corruption framework
Challenges to anti-corruption apparatus
• Resource adequacy for anti-corruption efforts
• Resource-informed anti-corruption planning
• Key challenges in SOE anti-corruption
• Policy and legislative gaps
• Attitudinal barriers
• Capacity limitations
• Financial constraints
• Expertise shortages of existing policies and legislative frameworks
Stakeholder views and best practises
• Identify key stakeholders
•Define stakeholder roles
• Gather perceptions on current anti-corruption practices
• Collect stakeholder suggestions for improvement
• Involve stakeholders in planning and implementing anti-corruption systems
• Study and adapt best practices from other contexts
Anti-corruption Resilience building
• Build SOE resilience through capacity development, adaptability, and problem-solving
• Identify drivers of good governance
• Enhance transparency and accountability mechanisms
• Invest in research, education, and training
• Strengthen regulatory and policy frameworks
• Foster international cooperation and knowledge exchange
• Encourage renewed political commitment
• Minimize corruption opportunities through systemic reforms
• Ensure adequate and sustainable funding
ANTI-CORRUPTION INSTITUTIONAL FRAMEWORK
• Strong transparency, accountability, and regulatory frameworks
• Committed political will and adequate funding
• Active community engagement and participation
• Skilled, trained, and educated personnel
• International cooperation and adoption of best practices
•International capacity, adaptability, and problem-solving skills
• Systems designed to eliminate corruption opportunities
• Improved service delivery through effective governance
X-inefficiency theory
Agency Theory and Social Identity & Social Learning
Social Network
Stakeholder & Institutional Resilience and compliancy

Expanded Six-Phase Anti-Corruption Framework for SOEs in Zimbabwe

Phase I: Evaluating Corruption State

- Objective: Establish corruption baseline in SOEs
- Actions: Conduct surveys, review audits, analyze media reports
- Stakeholders: Internal Audit, ZACC, Auditor-General, CSOs
- Outcomes: Corruption heat map, prioritized risk list, policy data
- Challenge/Mitigation: Management resistance / Use legal mandates, ensure anonymity

Phase II: System Assessment

- Objective: Evaluate existing anti-corruption mechanisms
- Actions: Audit policies, assess technology use, evaluate governance compliance
- Stakeholders: SOE Integrity Committees, Corporate Governance Unit, Anti-Corruption Courts
- Outcomes: System inventory, gap identification, compliance indexing
- Challenge/Mitigation: Superficial policies / Verify with usage data

Phase III: Diagnosing Challenges

- Objective: Identify operational, institutional, legal constraints
- Actions: Conduct interviews, analyze capacity gaps, review failed cases
- Stakeholders: Integrity Officers, Parliament, Judiciary, Law enforcement
- Outcomes: System gap report, reform priorities
- Challenge/Mitigation: Reprisal fears / Use independent evaluators, anonymous tools

Phase IV: Stakeholder Input & Best Practices

- Objective: Integrate stakeholder insights and global practices
- Actions: Hold roundtables, benchmark successful models, review international guidelines
- Stakeholders: Researchers, ZACC, donors, business/community groups
- Outcomes: Stakeholder map, adaptable practices, multi-sectoral support
- Challenge/Mitigation: Token participation / Implement feedback loops, co-design

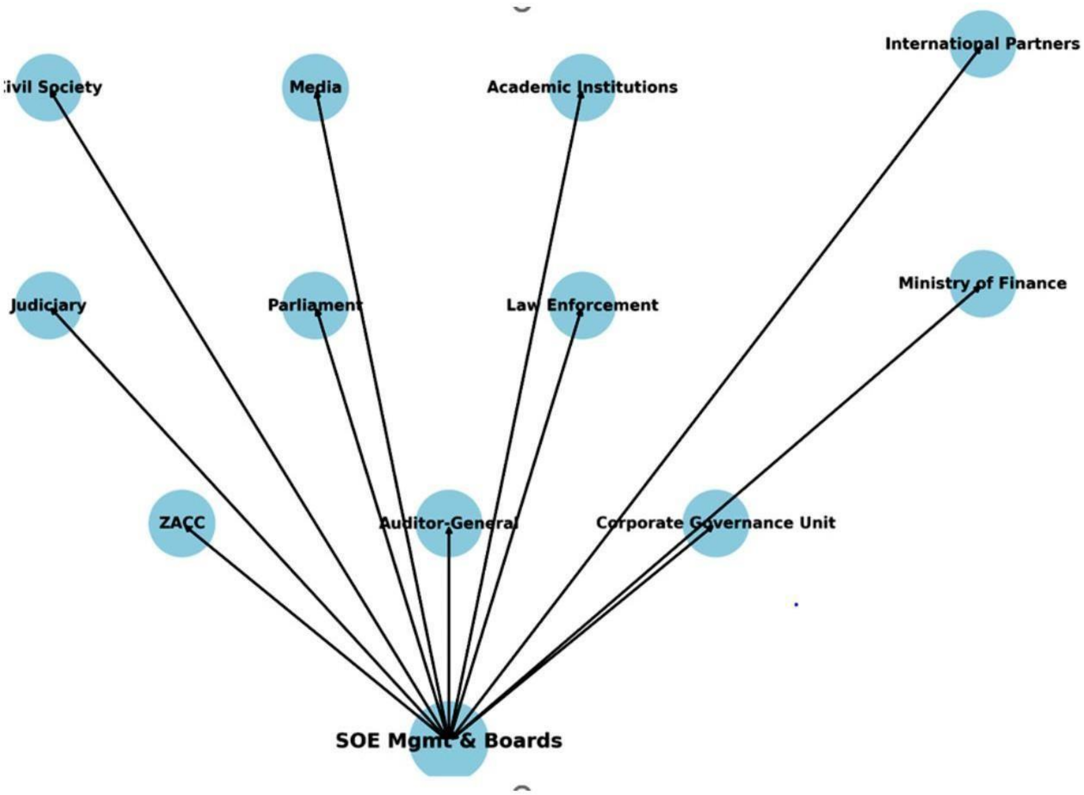
Phase V: Building Resilience

- Objective: Embed systems to prevent corruption recurrence
- Actions: Institutionalize ethics training, digitize high-risk processes, incentivize compliance
- Stakeholders: SOE HR/training units, ICT departments, Ministry of Public Service
- Outcomes: Integrity culture, reduced manual procedures, governance commitment
- Challenge/Mitigation: Technology misuse / Integrate training and monitoring

Phase VI: Framework Institutionalization

- Objective: Establish robust legal anti-corruption system
- Actions: Legislate compliance frameworks, create oversight boards, implement ISO 37001
- Stakeholders: Parliament, Ministry of Justice, ZACC, Corporate Governance Unit
- Outcomes: National framework, accountability mechanisms, corruption reduction
- Challenge/Mitigation: Legal loopholes / Align with international standards, establish penalties

b. Stakeholder Roles and Interactions – Visual Guide



Source: Author

First layer – Direct Oversight Bodies

- **ZACC**: Investigates corruption and promotes integrity within SOEs.
- **Auditor-General**: Audits financial statements and operations for accountability.
- **Corporate Governance Unit**: Ensures adherence to governance frameworks.

These bodies have **direct, frequent, and regulatory engagement** with SOEs.

Second layer – Institutional Oversight

- **Judiciary**: Handles corruption cases and legal disputes.
- **Parliament**: Holds SOEs accountable through committees and audits.
- **Law Enforcement**: Investigates and enforces laws around SOE misconduct.
- **Ministry of Finance**: Provides funding, sets financial controls, and enforces compliance.

This ring supports **policy-level oversight and legal enforcement**.

Outer layer – External Stakeholders

- **Civil Society**: Advocates for transparency and public accountability.
- **Media**: Exposes corruption and informs the public.
- **Academic Institutions**: Provide research and capacity-building insights.
- **International Partners**: Offer technical support, funding, and demand reforms.

These actors influence SOEs through **advocacy, whistleblowing, and research**.

Monitoring & Evaluation (M&E) Plan

Tools:

- Key Performance Indicators (KPIs) for corruption reduction
- Annual scorecards by independent assessors
- Public reporting dashboards
- Mid-term and end-term evaluations using theory of change

Feedback Loops:

- Quarterly reviews with stakeholders
- Digital complaint channels feeding into M&E systems
- Periodic stakeholder forums for adaptive reforms

Indicators:

- Reduction in reported cases
- Improved audit scores
- Increased public trust (Afrobarometer surveys)

Theoretical Reflection

❖ **X-Inefficiency Theory Applied to Zimbabwe's SOEs**

X-inefficiency arises when firms (or entities) do not produce output at minimum cost due to lack of competitive pressure or managerial discipline. In Zimbabwe's SOEs, this inefficiency is often reflected in inflated procurement costs, ghost workers, idle equipment, and redundant staffing outcomes that result from corrupt practices enabled by weak oversight and political patronage. For instance, audits of entities like ZESA and NRZ have revealed significant inefficiencies in procurement and human resource deployment, directly traceable to corrupt networks within management and procurement units.

Framework Intervention

The framework addresses these inefficiencies by embedding mechanisms such as:

- **Mandatory performance audits**,
- **Digital procurement systems** (e.g., e-procurement platforms),
- **Whistle-blower protections**, and
- **Performance-based incentives** aligned with **Expectancy Theory** to motivate efficient and honest behaviour.

These strategies help reduce slack and inefficiency by increasing accountability, aligning incentives with performance, and discouraging rent-seeking behaviour.

❖ **Institutional Theory Applied to Zimbabwe's SOEs**

Application in Context

Institutional theory posits that the behaviour of organizations is shaped by formal rules (laws, regulations) and informal norms (culture, traditions). In Zimbabwe's SOEs, corruption persists partly due to weak enforcement of existing anti-corruption laws, institutional fragmentation, and politicized leadership appointments. For example, entities like the Zimbabwe National Roads Administration (ZINARA) have suffered from repeated rule violations in procurement and financial management, despite the presence of legal frameworks such as the Public Finance Management Act. This indicates that institutions exist in form but not in function.

Framework Intervention
To counter these weaknesses, the framework strengthens institutional environments through:

- **Legal harmonization** across SOEs to eliminate regulatory loopholes,
- **Independent anti-corruption units** within each SOE to enforce compliance,
- **Transparent recruitment processes** to de-politicize leadership roles,
- **Institutional capacity-building** through training and system upgrades. By reinforcing both formal rules and enforcement mechanisms, the framework ensures that institutions evolve from passive rule-bearers to active corruption deterrents.

❖ **Stakeholder Theory Applied to Zimbabwe's SOEs**
Application in Context
Stakeholder theory emphasizes the importance of identifying and balancing the interests of all parties affected by an organization's actions. In Zimbabwe, SOEs often operate in ways that neglect key stakeholders such as communities, civil society, and honest private contractors. For instance, public input is rarely sought in procurement decisions, leading to non-transparent contracts and infrastructure projects that do not meet public needs—fueling distrust and enabling collusion between officials and private suppliers.

Framework Intervention
The framework activates a multi-stakeholder approach by:

- **Institutionalizing community feedback loops** (e.g., citizen scorecards, public hearings),
- **Partnering with NGOs** to monitor and audit public projects,
- **Establishing Public–Private Integrity Pacts** to reduce collusion and promote transparency in public procurement,
- **Creating multi-stakeholder anti-corruption councils** in each SOE.
  This inclusive design empowers neglected actors, fosters transparency, and cultivates a culture of shared responsibility in governance.

❖ **Expectancy Theory Applied to Zimbabwe's SOEs**
Application in Context
Expectancy theory suggests that individuals engage in behaviours based on the expected outcomes whether the rewards are worth the effort. In SOEs, the perceived low risk of detection and weak consequences for corruption, combined with minimal rewards for honest behaviour, create a system where corruption is often a rational choice. For instance, junior officers at GMB and ZINWA may see corrupt acts as a way to supplement low wages, especially when senior managers engage in large-scale graft with impunity.
Framework Intervention
To reshape motivational structures, the framework proposes:

- **Merit-based promotion systems** to reward integrity and performance,
- **Corruption risk allowances** tied to ethical compliance,
- **Clear and consistently applied penalties** for corrupt acts at all levels,
- **Recognition and protection of whistle-blowers**, to encourage ethical reporting.

These interventions shift the cost-benefit analysis for public officers, aligning ethical conduct with professional advancement and job security.

Summary

This study draws on five interrelated theoretical lenses to explain and address the persistent corruption within Zimbabwe's State-Owned Enterprises (SOEs). Principal–agent theory exposes the incentive misalignments and weak oversight structures that allow managers to pursue self-interest with impunity. X-inefficiency theory highlights the internal inefficiencies and resource wastage resulting from corruption-fueled operational slack. Institutional theory underscores how formal rule systems are undermined by informal norms that tolerate impunity and weaken enforcement. Stakeholder theory emphasizes the exclusion of key voices such as civil society, employees, and minority investors from governance processes, which erodes transparency and legitimacy. Finally, expectancy theory illustrates how low motivation among public officials due to inconsistent rewards and politically driven appointments fuels disengagement and rent-seeking behavior. Together, these frameworks inform a multi-dimensional anti-corruption model that addresses the micro, meso, and macro layers of SOE governance failure. The proposed framework integrates hard governance mechanisms with soft institutional reforms tailored to Zimbabwe's context, thereby offering both theoretical contributions and practical pathways for curbing public-sector corruption.

Conclusion

This study developed a comprehensive, context-sensitive institutional framework to combat corruption in Zimbabwe's SOEs. Grounded in five key theoretical foundations, the framework responds directly to Zimbabwe's unique governance challenges:

- Principal–agent theory informed reforms to strengthen accountability and align managerial incentives with public interest.
- X-inefficiency theory shaped operational interventions to reduce internal slack and increase performance efficiency.
- Institutional theory guided proposals to rebuild credibility in enforcement mechanisms and restore rule-based governance.
- Stakeholder theory supported the integration of inclusive, participatory oversight structures.
- Expectancy theory informed human resource reforms to improve public officials' motivation and ethical conduct.

By translating these theoretical insights into actionable reforms, the framework contributes a novel, integrated approach to the governance of SOEs. It moves beyond fragmented solutions by addressing root causes at structural, organizational, and behavioral levels, offering a viable model for curbing corruption in other resource-constrained environments as well.

a. Key findings include:

- Corruption in SOEs is perpetuated by institutional inefficiencies, weak enforcement, lack of stakeholder inclusion, and poor incentive structures.
- The framework proposes integrated interventions such as mandatory performance audits, digital procurement systems, stakeholder-driven oversight mechanisms, and incentive-based integrity management.

- A multi-theoretical approach ensures that the framework is not only diagnostic but also prescriptive connecting theory to actionable reforms.

b. Implications for Policymakers and Stakeholders:

- **For Government**: The framework serves as a blueprint for developing a national anti-corruption strategy specific to SOEs, with emphasis on legal reform, institutional accountability, and technology-driven transparency.
- **For Development Partners**: The model highlights areas for technical and financial support, including digital systems, civic empowerment programs, and capacity-building initiatives.
- **For SOE Boards and Executives**: The framework emphasizes internal reforms such as ethical leadership, results-based management, and stakeholder engagement.
- **For Civil Society and Communities**: It outlines channels for constructive engagement in oversight and whistle-blowing, fostering a culture of participatory governance.

c. Future Research Directions

While this study offers a foundational framework, further research is critical to refine and validate its practical application. Priority areas include:

i. **Pilot Implementation Studies**
   - Test the framework in selected SOEs (e.g., ZESA, NRZ, GMB) to evaluate feasibility, institutional responsiveness, and stakeholder adaptability.

ii. **Longitudinal Impact Assessments**
   - Conduct studies over time to assess the sustained impact of implemented anti-corruption interventions on organizational performance, service delivery, and public trust.

iii. **Comparative Analysis**
   - Apply and adapt the framework in other African or post-colonial contexts to assess transferability and to identify contextual enablers and barriers.

iv. **Behavioural Studies**
   - Examine the motivational and psychological dimensions of corruption among SOE employees, using Expectancy Theory as a guiding lens.

v. **Technology and Innovation in Anti-Corruption**
   - Investigate the role of emerging digital tools (e.g., blockchain, AI-driven audits) in enhancing transparency and accountability in SOEs.

Future research should continue to bridge the gap between academic theory and policy practice, ensuring that anti-corruption efforts remain responsive, adaptive, and rooted in local realities.

10. Recommendations

❖ **Depoliticize Board Appointments:**

Zimbabwean authorities should implement merit-based, transparent selection processes for SOE board members to reduce patronage and increase accountability. Independent nomination committees and clear qualification criteria should be mandated (Kaufmann & Kraay, 2020).

❖ **Strengthen Oversight Institutions:**

Empower regulatory bodies and parliamentary committees with adequate resources and legal authority to monitor SOE operations and enforce compliance with governance standards (IMF, 2022).

❖ **Promote Ethical Leadership and Performance Culture:**

SOEs must institutionalize codes of ethics and conduct, accompanied by regular training and a zero-tolerance approach to corruption. Leadership should model integrity and embed performance-based incentives linked to ethical behavior (World Bank, 2021).

- **Enhance Transparency and Public Reporting:**

Require SOEs to regularly publish audited financial statements and operational reports to enable public scrutiny and build trust among stakeholders (OECD, 2019).

- **Leverage Technology for Accountability:**

Implement digital tools such as e-procurement systems, real-time monitoring, and whistleblowing platforms to detect and prevent corrupt practices efficiently (Transparency International, 2023).

- **Foster Multi-Stakeholder Collaboration:**

Encourage partnerships between government, civil society, private sector, and international organizations to design and implement anti-corruption initiatives tailored to Zimbabwe's context (Mlambo & Sibanda, 2018).

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The Effects of Social Influence on Mobile Life Insurance Purchase Intention in Zimbabwe: Mediating Role of Brand Attitude

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ABSTRACT

This study investigated the influence of social factors and brand attitude on consumers' intention to purchase mobile life insurance in Zimbabwe, where mobile distribution remains a developing channel. Grounded in the theory of reasoned action, the research employed Structural Equation Modelling to analyse data collected via an online survey. A questionnaire utilising a five-point Likert scale was distributed to a randomly selected sample of 250 customers from a prominent life insurance provider. Findings indicate that social influence and brand attitude have a substantial impact on purchase intention, with brand attitude acting as a crucial mediator that enhances the influence of social factors. The study concludes that a positive brand attitude is critical in enhancing the adoption of mobile life insurance. The study recommends that insurers invest in strategies that strengthen brand perception to leverage social influence more effectively. The study provides new insights into consumer behaviour in the digital insurance landscape and advances the emerging literature on mobile insurance adoption in developing nations, notably Zimbabwe.

Key words: Mobile life insurance, social influence, Brand attitude, digital distribution, purchase intention, new business strain, direct life insurance distribution

Introduction

The COVID-19 pandemic significantly accelerated the adoption of digital distribution channels across various sectors, including the insurance industry (Pauch & Bera, 2022; Volosovych, Zelenitsa, Kondratenko, Szymla, & Mamchur, 2021). Traditionally, life insurance has been delivered through agency-based models that rely on face-to-face interactions to build trust and support ongoing service provision (Insurance Information Institute, 2021). However, pandemic-related restrictions challenged the viability of these conventional methods, prompting a shift towards digital platforms as safer and more efficient alternatives.

Prior to the pandemic, the adoption of mobile and internet-based distribution in life insurance was limited, even in advanced markets (Alt, Săplăcan, Benedek, & Nagy, 2020). Resistance stemmed from longstanding industry norms that valued personal interaction and concerns over digital channels' capacity to replicate agent-facilitated trust and personalisation (Popović, Anišić, & Vranić, 2022; Suyani & Secapramana, 2021). Nonetheless, the necessity for remote solutions has catalysed a re-evaluation of these practices, positioning digital and mobile distribution as increasingly viable.

In sub-Saharan Africa, Mobile Network Operators (MNOs) have pioneered mobile insurance models, demonstrating strong potential in reaching underserved populations (Leach & Ncube, 2014; Sing'oei, Nyiva, & Jemaiyo, 2024). Their strategies focus on mobile-exclusive channels for marketing, sales, and customer service, often centred on micro-insurance products designed for affordability and accessibility (Mhella, 2023). These initiatives have shown that mobile technology can extend insurance access in low-penetration markets, bypassing traditional infrastructural constraints.

The pandemic has further amplified the relevance of mobile insurance globally, reinforcing the need for flexible, accessible, and scalable insurance solutions (Shevchuk, Kondrat, Stanienda, 2020). In emerging economies such as Zimbabwe, where mobile phone penetration is high but insurance uptake remains low, mobile insurance offers a compelling avenue for growth (Asongu & Odhiambo, 2019). Enhanced mobile connectivity and shifting consumer expectations have strengthened the case for digital transformation within the insurance sector.

Mobile platforms not only support operational efficiency by reducing reliance on intermediaries (Kumaraguru, 2018), but also improve customer engagement and experience (Revathi, 2020). These innovations have positioned mobile insurance as a strategic enabler of industry resilience, allowing insurers to realign with evolving market dynamics while delivering essential financial protection.

This study examined the influence of social influence and brand attitude on the intention to purchase mobile life insurance in Zimbabwe, a context where mobile insurance distribution is still nascent. With its unique combination of low insurance penetration and growing mobile technology adoption, Zimbabwe provides a pertinent case for exploring consumer behaviour in mobile insurance uptake. The study further investigates the mediating role of brand attitude in shaping the relationship between social influence and purchase intention. In doing so, it aims to contribute to the limited academic literature on mobile insurance in developing markets and offer practical insights for insurers operating in similar contexts.

Literature review

The life insurance distribution channel

Life insurance distribution channels refer to the various mechanisms used to market, sell, and deliver life insurance products to consumers (Singh & Deshmukh, 2022). Traditional methods predominantly involve face-to-face interactions through intermediaries such as agents, brokers, and banc assurance partners (Ntikalai & Tari, 2019). However, digital platforms enabling direct online transactions have gained prominence, particularly in response to the COVID-19 pandemic, which disrupted physical engagement models.

The effectiveness of a distribution channel significantly influences the accessibility, reach, and overall success of insurance offerings (Bravo, 2021). Beyond sales, distribution encompasses functions such as advertising, price comparison, negotiation, policy finalisation, and post-sale services (Eckert, Eckert, & Zitzmann, 2021). Despite digital growth, traditional intermediaries still account for approximately 90% of global life insurance premiums (Insurance Information Institute, 2021). These models, however, incur high acquisition costs, primarily due to commission-based compensation structures (Braegelmann & Schiller, 2023).

Such costs contribute to what is termed new business strain, a period in which initial expenses exceed the revenue from premiums in the early years of a policy (Kumar & Rao, 2023). This strain is exacerbated by underwriting, administrative costs, and reserve requirements (Molloy & Ronnie, 2021; Suwanmalai & Zaby, 2022). Although temporary, poor management of this strain can impact an insurer's financial sustainability, particularly during periods of accelerated policy issuance (Hinrichs & Bundtzen, 2021).

The pandemic underscored the vulnerability of face-to-face channels under restrictive conditions. In contrast, mobile distribution models offer cost efficiencies, greater scalability, and resilience. By reducing acquisition costs and enhancing customer engagement throughout the sales journey, mobile platforms present a viable alternative that can mitigate new business strain and adapt to evolving consumer and market conditions.

Background of mobile life insurance distribution

Mobile applications have been increasingly employed in the insurance industry, particularly in developed markets such as the United States and Europe, where they are primarily used to monitor individual health behaviours and manage insurance claims (Kreitmair, 2024; Krüger & Bhroin, 2020). Rather than serving as direct sales channels, these technologies have been utilised to generate policy quotations, estimate retirement income, locate insurance agents, and provide secure storage of policy information (Dymnich, 2024).

Despite growing digital adoption, fully mobile-enabled life insurance purchases remain limited in developed markets. In most cases, transactions are completed via mobile-accessed web platforms. However, less than 15% of consumers complete the entire insurance purchase process digitally (Candreia *et al.*, 2024). Research from Germany, conducted post-COVID-19 lockdowns, suggests that while the pandemic accelerated digital adoption across age groups, many traditional insurers have struggled to fully transition, with exclusive agents and younger customers leading this shift (Eckert *et al.*, 2021).

Interestingly, Africa pioneered the practical application of mobile distribution in life insurance. In Ghana and Tanzania, partnerships between mobile provider Tigo and intermediaries such as MicroEnsure and Bima extended life insurance coverage to over a million previously uninsured individuals (Pain, Tamm, & Turner, 2014). Similarly, Kenya's Kilimo Salama, launched in 2009, leveraged M-Pesa to insure smallholder farmers against crop failure, covering over one million individuals across Kenya, Rwanda, and Tanzania by 2016 (Cheston, Kelly, McGrath, French, & Ferenzy, 2018; World Bank, 2017).

In South Africa, MTN's Mobile Money platform enabled users to purchase insurance, pay premiums, and file claims using basic mobile phones, demonstrating that even non-smartphone technology can be leveraged to reach underserved populations (Willcox *et al.*, 2019). In 2014, MTN's mobile-distributed micro insurance accounted for 13% of Africa's insured lives (McCord & Biese, 2015).

Zimbabwe's entry into mobile life insurance was spearheaded by Econet Wireless with the launch of Ecolife in 2010. This micro insurance funeral cover was bundled with mobile airtime and delivered through a partnership with First Mutual Life and Trustco, the latter providing the technical platform (Leach & Ncube, 2014). Within seven months, Ecolife attracted 1.6 million subscribers, approximately 20% of Zimbabwe's adult population (World Bank, 2015). However, the initiative collapsed following the dissolution of the Econet–Trustco partnership, leaving millions without coverage.

This disruption had lasting effects. Leach and Ncube (2014) report that 63% of surveyed customers expressed reluctance to use similar products in future, while 42% registered general dissatisfaction with insurance. Nevertheless, Econet relaunched Ecolife in 2014 under its own insurance subsidiary, Econet Life, and by late 2019, it had over 1.3 million active policy holders (IPEC, 2019). Although below the initial peak, this made it the largest insurer by subscribers in

Zimbabwe. Other mobile operators, such as NetOne and Telecel, also entered the market through similar partnerships, signalling a sustained shift towards mobile-based insurance distribution. Telecel partnered with Zimnat Lion to offer Telecare, a funeral insurance product, while NetOne is distributing a medical insurance product in collaboration with Salutem International Medical Fund (Gambanga, 2014; Kabweza, 2024). Consequently, the distribution of mobile insurance in Zimbabwe has predominantly been dominated by insurance providers affiliated with mobile network operators, primarily through microinsurance products aimed at their captive customer base.

Social media channel

The integration of social media into life insurance distribution represents a transformative development, offering insurers dynamic engagement with consumers through interactive and targeted communication. Social media comprises internet-based platforms that enable the creation and exchange of user-generated content, including commenting, product reviews, and content sharing (Awaloedin, Robidi, Winata, & Erizal, 2023; Harrigan, Evers, Miles, & Daly, 2017). Platforms such as WhatsApp, Facebook, Instagram, X (*formerly* Twitter), YouTube, TikTok, and LinkedIn have become essential tools for insurers seeking to enhance market visibility and customer engagement (Pugnetti, Becker, & Zani, 2022; Ravazzani & Hazée, 2022).

Mobile device usage patterns significantly influence the reach and effectiveness of social media marketing. In lower- and middle-income countries (LMICs), the uptake of internet-enabled mobile phones, particularly smartphones, has broadened digital access and created new marketing avenues (Bahia & Suardi, 2019). Device affordability and internet accessibility, often linked to socio-economic status, shape user engagement and offer insurers opportunities for segmentation and personalised messaging (Lappeman, Du Plessis, & Egan, 2020; Shareef, Mukerji, Alryalat, Wright, & Dwivedi, 2018).

Beyond promotion, social media platforms enable value co-creation, positioning consumers as active participants in the buying process (Rana, Slade, Sahu, Kizgin, Singh, Dey, & Dwivedi, 2020). Peer influence within these networks significantly impacts consumer perceptions and purchase decisions, particularly among digitally native users. Studies have demonstrated that credible social media advertisements positively influence life insurance uptake, especially among younger demographics (Pareek, Dua, & Mittal, 2022; Pugnetti *et al.*, 2022). WhatsApp, in particular, has emerged as a dominant channel for insurance marketing due to its broad cross-demographic appeal and integration with mobile communication habits (Awaloedin *et al.*, 2023).

Compared to Short Messaging Service (SMS) marketing, social media campaigns offer improved targeting precision, cost-efficiency, and opportunities for real-time interaction (Chiang, Wong, & Huang, 2019; Nadaraja & Yazdanifard, 2013). Social media's core attributes, visibility, persistence, editability, and connectivity, further enhance business-to-consumer relationships (Treem & Leonardi, 2013).

Despite its potential, the effective use of social media in life insurance distribution requires overcoming several challenges. High data costs, limited digital infrastructure, and device affordability restrict access in developing markets (Dow-Fleisner, Seaton, Li, Plamondon, Oelke, Kurtz, Jones, Currie, Pesut, Hasan, & Rush, 2022). Furthermore, maintaining effective engagement demands continuous content management, personalisation, and responsiveness, which can strain organisational resources (Nadaraja & Yazdanifard, 2013).

Data privacy, cybersecurity, and intellectual property protection also pose significant concerns. Consumer trust can be undermined by data breaches or misuse of information, necessitating robust security frameworks (Hoffman, Kelley, & Rotalsky, 2016; Makwana, 2022). Moreover, insurers must manage legal risks associated with user-generated content, including reputational damage or regulatory non-compliance (Nadaraja & Yazdanifard, 2013).

Nonetheless, when effectively managed, social media serves as a vital tool for enhancing brand trust, expanding market reach, and increasing policy adoption. The incorporation of artificial intelligence, particularly chatbots, further optimises engagement by offering real-time, personalised support. To fully harness social media's potential, insurers must invest in secure platforms, ensure regulatory compliance, and prioritise user-centred strategies that foster trust and sustained engagement.

Artificial Intelligence (AI) Chatbots in Life Insurance on Social Media

The integration of AI chatbots into life insurance operations, particularly through social media platforms such as WhatsApp, has significantly enhanced customer engagement, operational efficiency, and service delivery. These AI-driven tools provide instant assistance, personalised recommendations, and real-time decision support, contributing to improved user experiences (Pareek, 2024). Their adoption, however, is shaped by factors such as user perception, trust, data security, and compliance with regulatory frameworks.

Chatbots fulfil various functions in life insurance, including customer service, claims processing, and policy administration. By automating routine interactions and queries, they help insurers reduce operational costs while maintaining consistent service delivery (Fichter & Anguelov, 2024). Advanced AI models are capable of delivering personalised responses and simulating human-like conversation, thereby increasing user satisfaction and building trust (Purohit & Arora, 2024). These chatbots also incorporate decision-support systems that assist consumers in making informed policy choices, continuously improving their responsiveness through machine learning (de Andrés-Sánchez & Gené-Albesa, 2024).

User acceptance of chatbots varies, with generational differences playing a key role. User acceptance of chatbots exhibits notable variation, with generational differences serving as a significant determinant. Generation Z users, born between 1996 and 2010 and currently aged between 15 and 29, tend to be more digitally oriented and frequently regard chatbots as efficient and accessible technological tools (Nicholas, 2020). Conversely, older users or those dealing with complex insurance issues may find chatbot interactions impersonal or inadequate (Mangla, Aggarwal, & Maurya, 2023). The chatbot's perceived anthropomorphism, the degree to which it mimics human interaction, also significantly affects user comfort and trust (Purohit & Arora, 2024).

Key determinants of chatbot adoption include perceived usefulness, ease of use, and social influence. Above all, trust remains a decisive factor; users are more inclined to engage with chatbots they believe to be secure and reliable (de Andrés-Sánchez & Gené-Albesa, 2024). Nonetheless, some users still prefer human interaction, especially when addressing emotionally sensitive matters or resolving complex queries.

Despite their benefits, the deployment of AI chatbots presents notable challenges. Data privacy and security are primary concerns, as chatbots handle sensitive personal and financial information. Threats such as spoofing and data breaches necessitate the implementation of robust cybersecurity measures, as identified through STRIDE threat modelling (Bokolo & Daramola, 2024). Furthermore, insurers must ensure that chatbot interactions comply with industry regulations and data protection laws to avoid legal and reputational risks.

Another challenge lies in improving the quality of chatbot conversations. Chatbots often struggle with understanding nuanced or technical insurance language, which can hinder user satisfaction. Enhancing their contextual understanding and conversational capabilities is critical to fostering positive customer experiences (de Andrés-Sánchez & Gené-Albesa, 2024).

The empirical literature underscores significant developments in the life insurance landscape from which Zimbabwe can draw valuable lessons. It highlights the shift from traditional distribution channels to mobile platforms, the integration of social media for customer engagement, and the adoption of AI chatbots to enhance service delivery. Moreover, it emphasises the increasing role of digital tools in shaping consumer interaction, particularly among Generation Z users. Nonetheless, a notable knowledge gap persists in understanding how social influence affects brand attitude, and how this, in turn, mediates the relationship with mobile life insurance purchase intention. While prior studies have examined these constructs in isolation, limited empirical research has explored their interrelationships within Zimbabwe's distinct socio-economic and technological context. This study sought to address this gap by investigating the mediating role of brand attitude, thereby offering novel insights into consumer decision-making in the adoption of mobile insurance.

Theoretical Framework

Consumer Behaviour Studies

Consumer behaviour research provides valuable insights into the psychological and social factors influencing purchasing decisions. Variables such as attitudes, beliefs, normative influences, and behavioural intentions play a critical role in shaping consumer actions (Hasan, Amin, Arefin, & Mostafa, 2024). In life insurance contexts, understanding these antecedents is essential for predicting purchase behaviour (Jiang, Liu, Liu, & Xiang, 2019). A prominent framework in this domain is the Theory of Reasoned Action (TRA), which posits that individual behaviour is primarily guided by behavioural intentions, themselves influenced by personal attitudes and perceived social pressures. The Theory of Reasoned Action offers a useful lens for examining how consumers form intentions to adopt mobile life insurance products.

Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA), developed by Fishbein and Ajzen (1975) posits that an individual's behaviour is driven by their intention to act, which reflects their readiness to perform a given behaviour (Sok, Borges, Schmidt, & Ajzen, 2021). Intention, in turn, is influenced by two key factors: the individual's attitude towards the behaviour and the perceived social pressures or subjective norms surrounding it (Ranong *et al.*, 2019). The TRA provides a robust framework for understanding consumer decision-making, particularly in contexts involving planned behaviours such as insurance adoption. Figure 1 below illustrates the key constructs of the Theory of Reasoned Action (TRA).

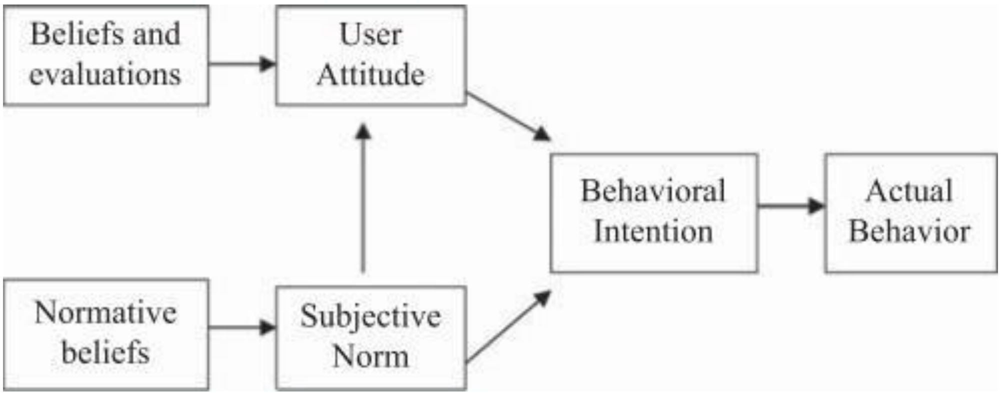


Figure 1: The Theory of Reasoned Action *(Adapted from Alshammari & Rosli, 2020)*

Within the Theory of Reasoned Action (TRA), attitude is defined as the individual's positive or negative evaluation of performing a particular behaviour (Sok *et al.*, 2021). It reflects the consumer's personal assessment of the likely outcomes and their desirability, serving as a key determinant in shaping behavioural intention (Jokonya, 2017). This includes the intensity of beliefs about the consequences of an action and the value placed on those consequences. The second core component of the TRA is the subjective norm, which refers to the perceived social pressure to engage or not engage in a behaviour, shaped by the opinions of significant others such as family, peers, and colleagues (Asvinigita, Piartrini, Suprapti, & Widagda, 2022; Sok *et al.*, 2021). It captures the extent to which individuals believe that important people in their lives approve or disapprove of a specific behaviour and their motivation to comply with these expectations (Giri, 2018).

The TRA has been widely used to understand consumer decision-making across various domains, including life insurance purchase intention (Balasuriya & Dharmasiri, 2024). The theory posits that a person's intention to perform a behaviour is influenced by their attitude towards that behaviour and the subjective norms surrounding it. In the context of life insurance, these constructs reflect both the consumer's beliefs about the benefits of insurance and the influence of their social environment on their decision. Several studies have validated the model's relevance for examining insurance-related decisions (*for example*, Nomi & Sabbir, 2020; Ranong, Suesawadwanit, & Boonpattarakan, 2019).

Nonetheless, the TRA is not without limitations. One critique is its limited capacity to predict habitual or automatic behaviours that do not involve conscious deliberation (Zaleski *et al.*, 2023). Tobias-Mamina and Maziriri (2023) note that many daily actions are shaped by habit rather than rational intention. Furthermore, the TRA does not adequately account for the influence of past behaviour, which can directly shape current behaviour outside the mediating influence of attitude and norms (Asvinigita *et al.*, 2022).

Despite these critiques, the TRA remains highly applicable to voluntary and considered decisions, such as the purchase of life insurance. Such decisions typically involve planning, deliberation, and external input, making the model an appropriate framework for analysing consumer behaviour in this sector (Nomi & Sabbir, 2020).

2.4 Conceptual Framework

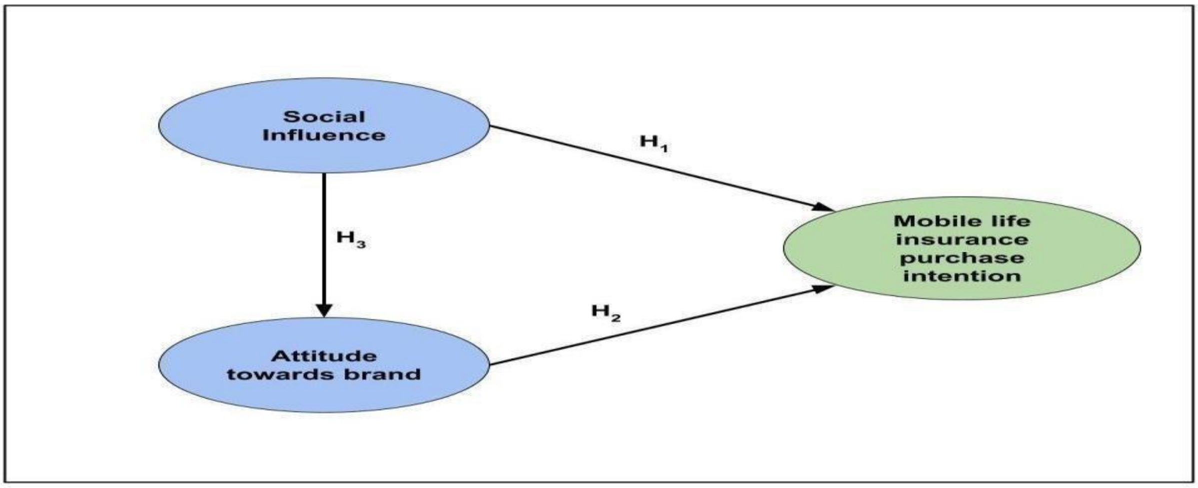


Figure 2: The Conceptual Model *(Source: Authors' compilation)*

This study adopts the Theory of Reasoned Action (TRA) model to investigate how social influence and brand attitude affect consumers' intention to purchase mobile life insurance. The research sought not only to understand the direct effects of social influence and brand attitude on purchase intentions but also to explore whether the consumer's attitude towards the brand mediates the relationship between social influence and the intention to buy mobile life insurance. In this framework, the constructs were contextualised to reflect the study's specific focus and to support hypothesis development.

Social influence

Social influence refers to the extent to which individuals' decisions are shaped by the opinions, behaviours, and expectations of significant others, such as family members, peers, and colleagues (Venkatesh, Morris, Davis, & Davis, 2003). It encompasses key dimensions such as normative pressure, peer approval, and conformity to prevailing social norms (Sarfaraz, 2017). Conformity to group norms has been widely recognised as a driver of consumer behaviour, particularly in contexts where group identity and collective values strongly inform individual preferences. For example, Giri (2018) and Fernandes and Panda (2019) found that social pressure significantly affects brand selection and product adoption, particularly in collectivist cultures where social cohesion is a dominant value.

Theoretical frameworks such as the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) provide conceptual grounding for this influence. Both posit that subjective norms, closely related to social influence, affect behavioural intentions by shaping attitudes through perceived social expectations (Alshammari & Rosli, 2020; Chen, 2022). Kang and Kim (2013) argue that social influence not only reinforces conformity to socially acceptable consumption behaviours but also helps individuals affirm their self-image and maintain social belonging. This insight underscores the psychological and identity-related mechanisms through which social influence operates.

Empirical studies within digital consumer contexts further validate this relationship. Jiang *et al.* (2019) and Méndez-Aparicio, Izquierdo-Yusta, and Jiménez-Zarco (2017) highlight the positive influence of social reference groups on online life insurance adoption, suggesting that peer recommendations and familial endorsements enhance credibility and reduce perceived risk. Nielsen (2015) supports this with compelling data, noting that 83% of consumers trust recommendations from people they know more than any other form of marketing.

However, findings in adjacent domains such as mobile banking reveal that the effect of social influence may be context-dependent. Boonsiritomachai amd Pitchayadejanant (2017), as well as Govender and Sihlali (2014) observed that social factors did not significantly impact adoption in those contexts, highlighting variability based on product type, perceived risk, and cultural or technological familiarity.

Drawing upon this critical review of literature and theory, it is reasonable to expect that social influence plays a meaningful role in shaping intentions within the mobile life insurance space, particularly in environments characterised by social interdependence and information asymmetry. Thus, the following hypothesis is proposed:

> *H_1: Social influence has a significant positive influence on consumers' intention to purchase mobile life insurance.*

Attitude towards brand

Attitude refers to a consumer’s enduring evaluations and beliefs about an object or entity, which influence behaviour and are shaped by previous experiences, contextual stimuli, and the perceived alignment of the object with personal values (Sok *et al.*, 2021). These evaluations are typically stable over time and exert influence across cognitive, affective, and behavioural dimensions (Hmoud, Nofal, Yaseen, Al-Masaeed, & Alfawwaz, 2022). In consumer behaviour theory, attitudes have consistently been identified as robust predictors of decision-making processes, especially in relation to product selection and brand loyalty.

Within the framework of the Theory of Reasoned Action (TRA), attitudes are seen as a core determinant of behavioural intention. This theory posits that favourable attitudes towards a behaviour increase the likelihood of its performance, particularly when reinforced by subjective norms (Ranong *et al.,* 2019). Applied to branding, a positive brand attitude can enhance consumers’ trust, reduce perceived risk, and foster emotional attachment, all of which are crucial for purchase intention, especially in intangible service contexts such as insurance (Komalasari & Liliani, 2021).

In this study, brand attitude is defined as consumers’ overall positive or negative perception of the organisation offering mobile life insurance (Komalasari & Liliani, 2021). The literature suggests that a favourable brand attitude can significantly influence intention to purchase, as consumers tend to select brands they perceive as trustworthy, value-aligned, and credible. Yulianti and Keni (2022) observed that strong brand attitudes significantly increase the likelihood of product adoption in the fintech sector, where digital interfaces substitute for physical touchpoints.

Moreover, in the context of mobile life insurance, a product often associated with high involvement and long-term commitment, brand attitude plays an even more pivotal role. Given the intangibility and risk-laden nature of insurance products, consumers rely heavily on brand cues to infer quality and security (Sahni & Karmadkar, 2018). As such, a favourable perception of the insurance provider's brand can reduce uncertainty and enhance consumer confidence in purchasing through mobile platforms.

Taken together, these theoretical and empirical insights point to a clear relationship between brand attitude and behavioural intention. Accordingly, the study proposes the following hypothesis:

> *H_2: Attitude towards the brand has a significant positive influence on consumers' intention to purchase mobile life insurance.*

Social influence on attitude towards brand

Social influence, as conceptualised by Fishbein and Ajzen (1975) within the Theory of Reasoned Action (TRA), encompasses subjective norms, that is, individuals' perceptions of how important others expect them to behave. These social expectations can lead individuals to adjust or form attitudes that are congruent with group norms and the views of influential referents, thereby reinforcing socially acceptable behaviours (Yang, Asaad, & Dwivedi, 2017). Within this framework, social influence is not merely behavioural but also cognitive and attitudinal, shaping individuals' evaluative perceptions of objects such as brands.

Empirical research has consistently affirmed the link between social influence and brand attitude. For instance, Eckert *et al.* (2021) highlight the pronounced effect of social influence on brand attitudes among younger consumer segments, who are often more responsive to peer validation and trend conformity. Similarly, Yang *et al.* (2017) argue that individuals develop brand attitudes that reflect the dominant values and preferences of their immediate social circles. This process of attitudinal alignment may occur both consciously and subconsciously, as individuals seek social approval and a sense of identity coherence.

Moreover, in the context of digital marketing and social commerce, social media influencers play a pivotal role in shaping consumer attitudes toward brands (Sahni & Karmadkar, 2018). Influencer endorsements, often perceived as authentic and relatable, have been shown to significantly influence brand perceptions through perceived credibility, trustworthiness, and expertise (Rayasam & Khattri, 2022). These social validators help construct a favourable brand narrative, which individuals may adopt as part of their own evaluative framework.

In the specific domain of mobile life insurance, where the intangible nature of the product necessitates higher levels of trust and perceived value (Winarti, Indriastuti, & Sohsan, 2023), brand attitudes influenced by social networks or endorsers may act as powerful determinants of intention. As such, recognising social influence as an antecedent to brand attitude contributes to a more nuanced understanding of consumer decision-making in digital insurance environments.

Based on this synthesis of theory and literature, the study advances the following hypothesis:

H_3: Social influence has a significant influence on attitude towards the brand.

Mobile life insurance purchase intention

Intention refers to the degree of effort individuals are willing to exert to perform a specific behaviour (Sok *et al.*, 2021). Purchase intention denotes the likelihood that a consumer will acquire a particular product or service in the future (Keat, Zakaria, & Mohdali, 2020). While strong purchase intention often correlates with actual behaviour, it may be influenced by external factors or personal constraints (Kotler & Keller, 2013). In this study, mobile life insurance purchase intention is defined as consumers' willingness to use mobile devices to purchase life insurance. This intention reflects the influence of both brand attitude and social influence, and serves as a key indicator of behavioural outcomes in mobile insurance adoption.

Methodology

Sample selection

This study adopted a quantitative approach to examine the effects of social influence and brand attitude on mobile life insurance purchase intentions. A major life assurance company in

Zimbabwe was selected based on convenience, owing to its advanced technological infrastructure, substantial market share, and active digital engagement during the COVID-19 pandemic. The target population consisted of 58,358 customers who received services from the company between January and May 2020.

A sample of 387 respondents was drawn using simple random sampling to ensure representativeness and minimise sampling bias. The sample size was determined using Taro Yamane's formula (Adam, 2020), providing an acceptable precision level of approximately 0.05. To generate the sample, the Excel Random Value function was employed, and 397 life insurance customers were initially selected to account for non-responses. This corresponds to a selection probability of approximately 0.0068 (397/58,358), thus supporting the generalisability and reliability of the findings within the mobile life insurance context.

Data collection and analysis

Data were collected between January and March 2020, during the national COVID-19 lockdown period in Zimbabwe. This timing ensured that respondents had ample opportunity to participate, given the increased availability of time during movement restrictions. A structured questionnaire based on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) was used to gather the data. The questionnaire was administered via Google Forms, with the survey link distributed through both email and WhatsApp platforms. The WhatsApp numbers and email addresses of potential respondents were obtained from the participating life assurance company, in line with ethical considerations.

A total of 397 questionnaires were distributed, and 250 complete responses were received, yielding a response rate of 63%, which aligns with comparable studies (Wu, Zhao, & Fils-Aime , 2022). Responses were automatically recorded in Google Sheets, facilitating data preparation for further statistical analysis. To mitigate common method biases, such as social desirability and recall bias, respondents were assured of anonymity and confidentiality throughout the process (Ried, Eckerd, & Kaufmann, 2022).

Data analysis was performed using IBM SPSS Amos 23. Confirmatory Factor Analysis (CFA) assessed the measurement model's fit, followed by Structural Equation Modelling (SEM) to test the hypothesised relationships among social influence, brand attitude, and purchase intention.

Variables and measures

This study investigated three latent variables: Social Influence (SocInf), Attitude Towards Brand (AttB), and Mobile Purchase Intention (MobPI). Measurement items were adapted from established scales to suit the mobile life insurance context. SocInf and MobPI items drew upon prior research in technology adoption and purchase intentions by Venkatesh *et al. (*2003), Yin, Li, and Qiao (2016), and Doan (2020). Sample items include: "People who matter to me believe that I should purchase life insurance through my mobile phone" (SocInf), and "I would like to buy life insurance using my mobile phone in the future" (MobPI). AttB was measured using items such as: "I would consider buying life insurance using my mobile phone if the insurer is a reputable brand." Item development was also informed by Jiang *et al.* (2019), employing the UTAUT framework, and Kudeshia and Kumar (2017), who examined the influence of social e-WOM on brand attitudes and purchase intentions.

Results

The analysis commenced with an evaluation of the measurement model's validity and reliability, as shown in Table 1. This table displays factor loadings, Cronbach's alpha coefficients, Average Variance Extracted (AVE), and Composite Reliability (CR) across three dimensions.

Table 1: Factor loadings, Cronbach's alpha, Average Variance Extracted (AVE) and Composite Reliability (C.R).

Dimension	Item	Factor loading	Cronbach's Alpha	AVE	C.R
Social Influence	SI1	.904	.703	.60	.81
	SI2	.705			
	SI3	.677			
Attitude towards brand	ATB1	.905	.950	.87	.95
	ATB2	.982			
	ATB3	.908			
Mobile purchase Intention	MPI1	.706	.761	.53	.77
	MPI2	.810			
	MPI3	.651			

Note: N = 250

The initial analysis focused on validating the measurement model's reliability and consistency. As illustrated in Table 1, the three model dimensions were evaluated using factor loadings, Cronbach's alpha coefficients, average variance extracted (AVE), and composite reliability (CR), all of which demonstrated acceptable values. The factor loadings across all observed variables exceeded the threshold of 0.7, indicating that these variables effectively measured the intended constructs. Similarly, Cronbach's alpha values above 0.7, AVE values over 0.5, and CR values surpassing 0.7 underscored the model's satisfactory reliability and construct validity.

Table 2: Measurement model fit indices

Name of Index	Coefficient	Comment
GFI	0.956	Acceptable, value above 0.90
RAMSEA	0.073	Acceptable fit, value less than 0.08.
NFI	0.965	Good fit, value above 0.90
TLI	0.968	Good fit, value above 0.95
CFI	0.979	Good fit, value above 0.95
Chisq/df	2.339	Good fit since the value is less than 5.0

Note: N = 250

Next, the confirmatory factor analysis (CFA) model fit indices, summarised in Table 2, were assessed following established guidelines from Chen (2022). With a Goodness of Fit Index (GFI) of 0.956 and a Normed Fit Index (NFI) of 0.965, both values meet the recommended minimum of 0.90, signifying an acceptable fit. Further, the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) values of 0.968 and 0.979, respectively, exceed the minimum threshold of 0.95, confirming a good fit. The Root Mean Square Error of Approximation (RMSEA) value of 0.072 remains below the critical threshold of 0.08, supporting the model's fit with minimal discrepancies between hypothesised and observed data. Additionally, the Chisq/df ratio of 1.937 falls well within the acceptable range below 5.0, ensuring a balanced model that accounts for variance without overfitting. Together, these indices confirm the CFA model's robustness and support the inclusion of all latent constructs in the subsequent analysis, enhancing the credibility of the findings.

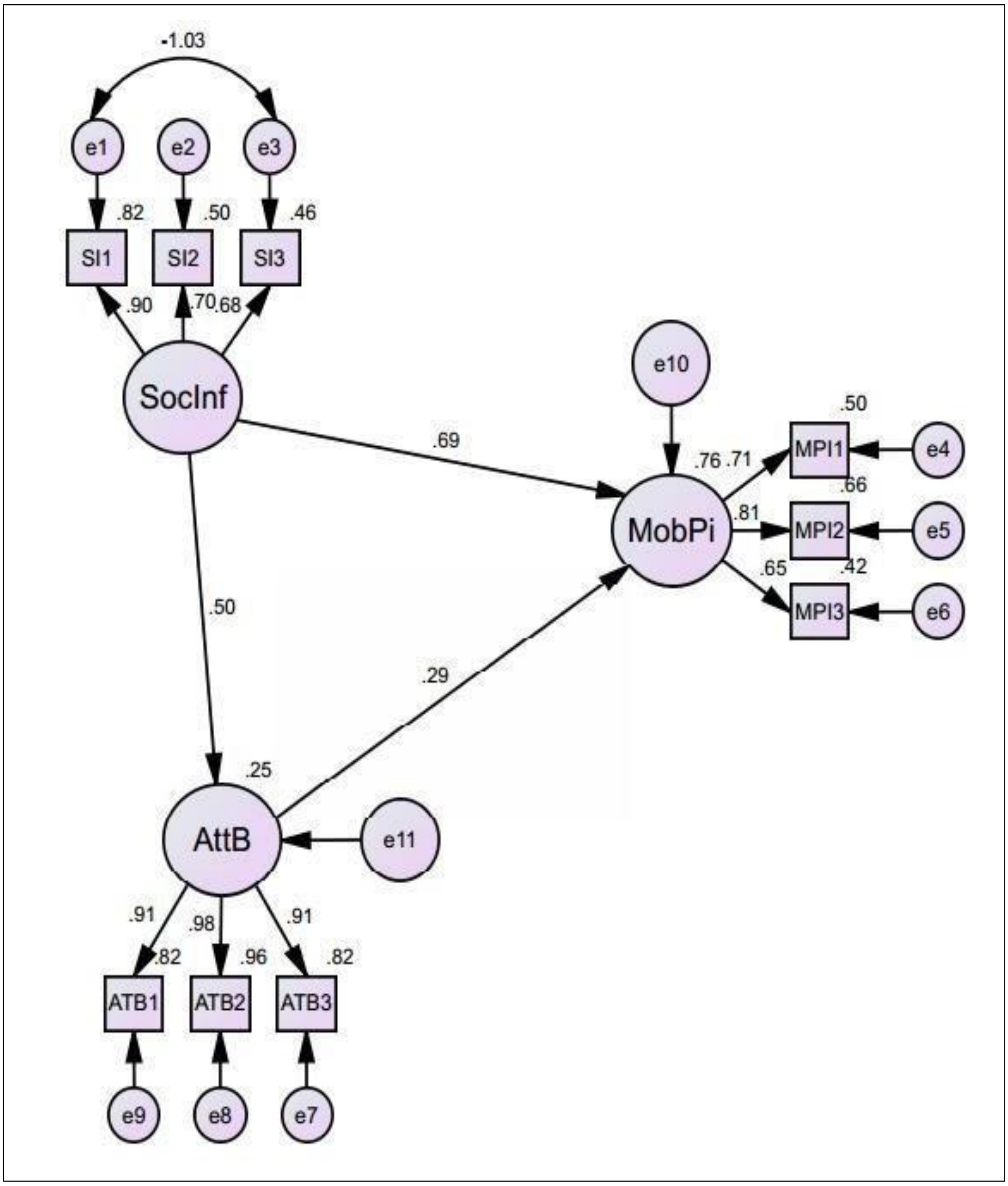
Table 3: Correlations coefficients

Paths			Correlation coefficient	p-value
Social Influence (SocInf)	<-->	Attitude Towards Brand (AttB)	.497	0.00
Social Influence (SocInf)	<-->	Mobile Insurance Purchase Intention (MobPi)	.837	0.00
Mobile Insurance Purchase Intention (MobPi)	<-->	Attitude Towards Brand (AttB)	.632	0.00

Note: N = 250

The correlations among the constructs, as displayed in Table 3, indicate a moderate to strong positive association among SocInf, AttB, and MobPi. A correlation of 0.497 between SocInf and AttB, as well as 0.632 between AttB and MobPi, highlights strong but non-collinear relationships (coefficients below 0.7), reducing multicollinearity concerns. However, the high correlation of 0.837 between SocInf and MobPi warrants further examination, suggesting that a variance inflation factor (VIF) analysis may be necessary to confirm construct distinctiveness and regression estimate reliability. Despite this, the significant positive correlations align with theoretical expectations and support the model's applicability to the study context.

Figure 1 shows the SEM model with standardized path coefficients.



Note: N = 250

Figure 3: SEM model paths with coefficients

Finally, as shown in Figure 3, the Structural Equation Modelling (SEM) analysis produced factor loadings above 0.7 for each latent construct, each of which was measured by three items. The model revealed that AttB mediates the influence of SocInf on MobPi. The R-square value of 0.76 for MobPi indicates that 76% of the variance in Mobile Insurance Purchase Intention is explained by SocInf and AttB. The path analysis, summarised in Table 4, shows that all standardised direct, indirect, and total effects were statistically significant (p = 0.00), supporting the hypothesised relationships.

Table 4: Standardised direct, indirect, and total effects

Standardized direct effects	**Coefficient**	**p-value**
Social Influence ---> Attitude towards brand (a)	0.497	0.00
Social Influence ---> Mobile Insurance Purchase Intention (b)	0.694	0.00
Attitude towards brand ---> Mobile Insurance Purchase Intention (c)	0.287	0.00
Standardized indirect effects		
Social Influence---> Attitude towards brand --->Mobile Insurance Purchase Intention (a x c)	0.143	0.00
Standardized total effects		
Social Influence---> Attitude towards brand --->Mobile Insurance Purchase Intention (a x c)+b	0.837	0.00

Note: N = 250

Discussion of findings

Effect of social influence on mobile life insurance purchase intention

Social influence emerged as a key predictor of mobile life insurance purchase intention, with a strong standardised coefficient of 0.694, confirming its substantive role in shaping consumer behaviour in Zimbabwe's mobile insurance market. This finding supports the theoretical foundation provided by the Theory of Reasoned Action (TRA), where subjective norms, reflecting social pressure, significantly influence behavioural intentions (Fishbein & Ajzen, 1975; Sok *et al.,* 2021). In collectivist societies, such as Zimbabwe, communal networks and peer endorsement exert considerable influence on decision-making, reinforcing previous findings by Giri (2018) and Jiang *et al.* (2019).

Moreover, this result aligns with literature showing the effectiveness of peer recommendation and influencer marketing in enhancing trust and purchase likelihood, particularly via social media platforms (Yang *et al.,* 2017; Pareek *et al.,* 2022). As Zimbabwe's mobile life insurance market evolves, leveraging social capital through trusted networks may serve as a vital strategy for market expansion.

Effect of attitude towards brand on mobile life insurance purchase intentions

The study also revealed that attitude towards the brand significantly influences mobile life insurance purchase intention ($\beta = 0.287$, $p = 0.00$). This corroborates empirical evidence from Komalasari and Liliani (2021) and Yulianti and Keni (2022) who assert that a favourable brand image fosters consumer confidence and enhances the likelihood of purchase, especially in digital contexts where direct interpersonal interactions are limited. The findings reinforce the TRA's emphasis on attitudes as a direct antecedent of intention (Ranong *et al.,* 2019) and confirm the importance of trust, brand reputation, and alignment with consumer values in insurance uptake (Sahni & Karmadkar, 2018).

Mediating Role of Brand Attitude in the Relationship between Social Influence and Purchase Intention

The mediating analysis showed that social influence significantly impacts brand attitude ($\beta = 0.497$, $p = 0.00$), which in turn mediates its effect on purchase intention. This three-way relationship illustrates how social influence not only exerts direct behavioural pressure but also shapes evaluative perceptions of insurance providers. The result is consistent with prior studies by Sahni and Karmadkar (2018) and Rayasam & Khattri (2022), which highlight the role of social referents and digital influencers in shaping brand narratives and, consequently, purchase decisions. It extends the literature by demonstrating this pathway specifically in the context of Zimbabwe's mobile life insurance environment, an under-researched area in the Global South.

Conclusion

This study affirms that both social influence and brand attitude are pivotal in shaping consumer intention to purchase mobile life insurance in Zimbabwe. Importantly, brand attitude mediates the effect of social influence, highlighting the need for integrated strategies that combine peer validation with strong brand positioning. These findings contribute to the theoretical discourse on the TRA by contextualising its constructs within a digitally enabled, low-penetration market, and by addressing the identified knowledge gap on the interaction between social and brand- related variables in insurance decision-making.

Recommendations

Based on the study's findings, several recommendations are proposed to support the growth of mobile life insurance in Zimbabwe. Insurers should harness social influence by engaging trusted community figures and digital influencers, thereby reinforcing peer-driven trust and promoting adoption. Strengthening brand perception is equally essential; insurers must build credibility through transparent communication, consistent service delivery, and a visible commitment to social responsibility.

Marketing strategies should be tailored towards Generation Z and other digitally native consumers who are more receptive to mobile technologies and peer validation. Messaging should be accessible, mobile-friendly, and aligned with the values of younger audiences.

Improving user experience across mobile platforms is also critical. Enhancing app usability, integrating responsive AI chatbots, and streamlining enrolment processes can foster greater trust and satisfaction.

Together, these strategies can improve purchase intention, address consumer scepticism, and increase life insurance penetration. By aligning technological innovation with social and psychological drivers, insurers can position mobile distribution as a viable, inclusive, and sustainable channel for insurance delivery in Zimbabwe.

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Building Resilience in Tax Administration: A Comprehensive Approach to Cybercrime-Free E-Filing Systems.

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ABSTRACT

This research assesses the performance and cyber-resilience of Zimbabwe's digital tax collection infrastructure, with a focus on the Zimbabwe Revenue Authority (ZIMRA)'s e-filing platform, using the Bookmakers and Punters Tax (BPT) as a case study. The aim was to determine the robustness of the system against web threats, value levels of tax authorities' trust and knowledge in issues of taxation in the digital world, and devise actionable recommendations to enhance system security and user engagement. At the core of the investigation were intersectionalities between cybersecurity resilience, taxpayer digital literacy, and trust in government-run digital environments. The study employs the Technology Acceptance Model (TAM), Trust Theory, and Social Exchange Theory (SET) to conceptualize perceived security, usability, and mutual expectations between citizens and tax authorities as predictors of voluntary compliance and long-term usage of electronic tax systems (Davis, 2021; Rousseau et al., 2020; Cropanzano & Mitchell, 2022). A quantitative research design was employed with a combination of descriptive and inferential designs. Data were gathered through standardized questionnaires filled in by a purposive sample of 100 participants, i.e., gamblers, betting operators, and ZIMRA officials—selected due to their direct and frequent engagement with the BPT e-filing system. They played a critical role in the comprehension of the lived experiences, operational difficulties, and trust relationships at the frontline of digital tax compliance. The questionnaire included closed and open-ended questions, and a 5-point Likert scale was employed to measure perceptions of fairness, security, digital literacy, and trust in institutions. Descriptive statistics provided descriptions of respondent characteristics and patterns of attitudes, whereas inferential techniques, including correlation and regression analysis, explored the interdependencies among cybersecurity awareness, user trust, and system utilization. Results showed that 45% of respondents believed the e-filing system to be secure while 60% had previously been aware of cyberattacks on the tax system. Illiteracy in *the contemporary era and doubt about ZIMRA's data protection methods emerged to be key hindrances to system use and compliance. Based on these insights, the study recommends the implementation of an integrated cybersecurity enhancement framework comprising public awareness campaigns, participatory system design, transparent data handling practices, and interactive feedback loops. These strategies are essential for cultivating trust, reducing systemic cyber-vulnerability, and fostering durable compliance in Zimbabwe's increasingly digital tax environment.*

Introduction

Globally, tax administration digitalization has emerged as a vital support column for improved revenue collection, reduced compliance costs, and fraud avoidance. Estonia, Singapore, and South Korea have been at the forefront in implementing e-filing systems with real-time data integration as well as cybersecurity steps, achieving over 90% compliance rates (OECD, 2021; PwC, 2022). The International Monetary Fund (IMF, 2021) holds the view that these digital reforms restrain corruption, limit evasion, and enhance audit effectiveness. Weaknesses do exist. For instance, in 2020, America's IRS encountered a data breach impacting more than 100,000 taxpayer returns, highlighting a necessity for robust cyber defensive practices in combination with innovation (GAO, 2022; Anderson & Moore, 2021).

The poor institutional capacity, weak regulatory enforcement, and absence of an advanced IT infrastructure emerging markets amplify cybercrime risks (UNCTAD, 2020; Mugarura & Lutalo, 2019). Certain African countries are advancing aggressively towards tax digitization, such as Rwanda, Nigeria, and Kenya. Cybercrime remains a hanging threat despite such advances. Kenyan's e-filing portal was also subjected to a ransomware attack in 2022 that caused havoc on its services and further undermined public confidence (Cybersecurity Africa, 2022). In Nigeria, there has been inadequate incorporation of tax portals and bank APIs, thereby offering loopholes for tax fraud and impersonation (Umar & Ibrahim, 2021). These cases reinforce the fact that a multi-layered cyber-security approach is essential when adopting e-filing systems in low-income environments.

Zimbabwe is digitally transforming its revenue authority, ZIMRA, under a whole-of-the-government economic reform initiative. The operation of the Bookmakers and Punters Tax (BPT) in a digitalized environment is a testament to progress and risk. Even though e-filing simplifies taxation, there is widespread concern about data security, fairness, and public engagement (ZIMRA, 2022; Mambo, 2023). More and more, users especially those informal in nature report being unaware of how the digital system operates and worry that their financial data are being mishandled or leaked (Chikwati, 2023; Dube, 2023). Further, researchers have highlighted that institutional trust, perceived fairness, and an informed citizenry are the foundations on which effective digital tax tool adoption relies (Bird & Zolt, 2005; Fjeldstad & Heggstad, 2012; Maposa et al., 2021).

The Emergence of Digital Taxation Systems

The development of digital taxation systems has been facilitated by global trends in digitalization and the need for better mechanisms for collecting taxes. The OECD (2021) explains that digital tax systems have emerged as important tools in the war against tax evasion, improving the efficiency of tax collection procedures while reducing administrative costs. According to PwC (2022), over 90% of the globe's high-income economies have already adopted some form of e-filing system that has established an example to be replicated for other countries like Zimbabwe. In countries like Estonia, use of e-platforms of tax administration contributed to an increase in the tax compliance rate by taxpayer from 65% to 93% within a span of just twenty years (OECD, 2021).

Cybercrime has emerged as a significant challenge as governments make efforts to digitize tax authorities. An INTERPOL (2020) report highlighted that cybercrime in the tax sector increased by 30% annually, with a rapid rise in the manipulation of e-filing platforms and identity theft. In the United States, for example, cybercriminals employed tax systems to steal millions in refunds with the help of data breaches and phishing (GAO, 2022). In the European Union, similarly, according to a survey conducted by Eurostat (2021), over 60% of people interviewed were concerned about the safety of their personal data in online government services, an indication that robust cybersecurity measures should be present in any digital tax reform.

Addressing Cybersecurity in Digital Taxation

In Africa, the trend towards digital taxation is on the rise, with countries like Kenya, Nigeria, and Rwanda leading the way in establishing e-filing systems. However, the threat of cybercrime still exists. A 2021 Mugarura and Lutalo (2019) research established that the lack of adequate cybersecurity infrastructure in most African nations, including Zimbabwe, leaves digital tax systems open to cybercriminals. The study emphasized that weak regulatory systems and low investment in IT infrastructure were some of the factors contributing to such vulnerabilities.

Rwanda's efforts to digitize tax collection have been effective in increasing compliance rates, but the country also faced cybersecurity attacks. Rwanda's tax authority was hit by a cyberattack in 2020 that compromised sensitive taxpayer data (UNCTAD, 2020). The attack demonstrated that even though countries have come a long way in terms of digital taxation, cybersecurity threats are still a significant hindrance. Furthermore, the application of digital tax systems in the majority of African countries has a tendency to occur before the public becomes aware of such technologies. In Zimbabwe, as in other Southern African countries, informal economy workers and the public are not digitally literate, and therefore cybercrime risks are more serious (Maposa et al., 2021).

Cybercrime and the Risk to Zimbabwe’s Tax Administration

Cybercrime presents a significant threat to Zimbabwe’s tax administration, particularly with the implementation of e-filing systems under ZIMRA. The Bookmakers and Punters Tax (BPT), introduced in a bid to modernize Zimbabwe’s tax system, faces challenges related to cybersecurity, as evidenced by data breaches and public distrust. As Mambo (2023) testifies, taxpayers increasingly believe that digital tax platforms are susceptible to cyber-attacks, and that diminishes their confidence in utilizing such platforms. Lack of proper encryption, multi-factor authentication, and other advanced security mechanisms leaves the system open to attack by hackers.

The platforms are also tainted with poor taxpayer awareness, as documented by Chikwati (2023). The majority of users—especially in the informal economy—do not understand how to use digital platforms effectively, and ignorance and fraud potential abound. Trust is also eroded by the beliefs that the digital taxation system operates in the government's interest rather than in the taxpayer's interest (Dube, 2023). These issues underline the need for a comprehensive cybersecurity strategy, one that includes encryption technologies, public education, and active stakeholder participation to protect both taxpayer data and the integrity of the tax system.

Zimbabwe's Struggle with Digital Taxation and Cybersecurity

Zimbabwe has made strides toward digitizing its tax system, with the implementation of e-filing systems through ZIMRA. Nevertheless, the nation continues to struggle with some important challenges concerning cybersecurity, public knowledge, and uptake of systems. ZIMRA (2022) indicates that, although the tax collection process has been tried to be computerized, there are still a number of taxpayers who are afraid of using digital platforms because of fear of data insecurity and lack of fairness. The Bookmakers and Punters Tax (BPT), a new digital tax initiative, has been received with a lot of opposition, particularly from illegal gamblers who are not familiar with e-filing systems (Dube, 2023). This also highlights the need for increased public education on the benefits of digital tax systems and their safeguarding of taxpayer information.

In addition, the informal economy, which constitutes over 60% of Zimbabwe's GDP (ZIMSTAT, 2022), remains largely outside the reach of digital tax mechanisms. Many transactions in sectors like gambling and betting are still conducted in cash, bypassing formal tax structures. This presents a significant challenge to ZIMRA, since digital taxation programs like the BPT aim to formalize informal economic activities without adequately considering the needs and interests of informal sector workers (Chipeta, 2022). The success of digital tax schemes will depend on how effectively these challenges are addressed, through technical enhancement as well as cooperative policy-formulation.

Problem Statement

Despite Zimbabwe's efforts to modernize its tax system through digitalization including the introduction of measures such as the Bookmakers and Punters Tax the success of these reforms remains constrained by persistent challenges in cybersecurity, public trust, and inclusive engagement. The digital taxation system lacks robust protection and is vulnerable to data breaches, manipulation, and cyberattacks, as evident from increasing regional threats and the absence of an adequate national cybersecurity framework (Gwebu & Wang, 2023; UNCTAD, 2023). Simultaneously, there has been insufficient investment in taxpayer education and stakeholder communication, especially among actors in the informal sector who form a critical part of Zimbabwe's economic activity (ZIMRA, 2022; Mhlanga & Nyathi, 2024). This gap has encouraged digital illiteracy, fear of being spied upon, and mistrust of digital systems, duplicating the same findings in Kenya and Nigeria where poor public sensitization deterred uptake (Mwangi & Awuor, 2024; Umar & Ibrahim, 2021). Without a secure, well-communicated, and inclusive digital tax environment, Zimbabwe's digital taxation agenda risks exacerbating non-compliance, alienating taxpayers, and exposing sensitive data, ultimately undermining its goal of sustainable and equitable revenue mobilization.

Objectives of the Study

1. To assess the current cyber-resilience capacity of Zimbabwe's e-filing tax systems under ZIMRA.
2. To investigate taxpayer awareness and trust levels towards the security and fairness of digital tax platforms.

Hypotheses

H1: Low taxpayer awareness of digital security processes has a strong negative impact on trust and compliance with e-filing tax systems in Zimbabwe.

H2: Perceptions of insecurity of data and unfair digital processes have a negative impact on taxpayer acceptance of e-filing platforms.

Empirical Review

The global shift to electronic tax systems has been transformative, particularly in improving revenue efficiency, transparency, and administrative simplification. However, the success of electronic tax systems depends not only on their technological sophistication but also on the determinants of public confidence, data protection, and inclusiveness. In Europe, Markov et al. (2020) carried out research on the e-tax systems of France and Germany concerning the efficiency and security of their systems of e-filing. Their findings were that while these have greatly increased the compliance rate, they both have serious problems of cybersecurity along with the users' lack of trust. Markov et al. (2020) discovered that although there was widespread technological uptake, only 55% of small French companies were highly confident in the security of the electronic tax systems because there were apprehensions of breach of personal data and fraud. This lack of trust, they contended, could hinder the full potential of e-tax systems unless countered with robust cybersecurity action and continued public engagement.

A similar study by Thompson and Lee (2021) in the United States was on the digital tax regimes in New York and California, analysing how the implementation of secure e-filing services influenced taxpayer behaviour and the efficiency of the tax collection process. Thompson and Lee (2021) discovered that while there was a temporary surge in e-filing adoption after the implementation, instances of cyber-attacks on state websites—such as the 2021 New York phishing scam—resulted in a temporary decline in taxpayer participation. They stated that after cybersecurity protocols were put in place, such as multi-factor authentication and encryption requirements, public trust in these systems slowly improved. Their findings indicate that cybersecurity breaches negatively affect the participation of taxpayers, which may lead to lost revenue and reduced compliance rates.

In Latin America, Rodríguez et al. (2022) conducted a study of the experiences of Brazil and Mexico in implementing electronic tax systems. Even though the two countries started using e-filing systems around the early 2000s, the study found that inadequate public education regarding digital taxes ranked among the major challenges to universal adoption, particularly among small businesses in rural areas. Rodríguez et al. (2022) noted that even though the

Brazilian systems were technologically advanced; the high participation was not achieved because the people lacked trust in digital security and understanding of the tax procedure. They concluded that improving digital literacy and raising taxpayer education campaigns would go a long way towards increasing the success of digital tax reforms in developing countries.

Shifting focus to Africa, a study paper by Mlambo et al. (2020) on e-filing systems usage in Sub-Saharan Africa indicated the critical role of public awareness and trust in electronic taxation. In their comparative analysis of Nigeria, Kenya, and South Africa, the researchers noted that although the countries had heavily invested in technological resources in e-filing systems, the systems were marred by low taxpayer engagement. Mlambo et al. (2020) argued that Nigeria's e-filing system, for instance, had been hindered by a lack of cybersecurity protocols, with taxpayers experiencing fears of data breaches. In Kenya, although the system was praised for its efficiency, the absence of adequate cybersecurity protocols and awareness campaigns meant that only 34% of taxpayers utilized the e-filing system on a regular basis. The study found that lack of faith in the system—because of inadequate cybersecurity policies and low levels of public knowledge—was among the key drivers of low levels of adoption in these countries.

Similarly, Karanja and Mwangi (2021) studied the e-tax systems in Uganda, Tanzania, and Zambia, analysing the impact of socio-economic determinants on the use of e-taxation platforms. Their study found that while e-filing systems were more easily embraced by urbanites who were higher-income earners, the informal and rural sectors were much less engaged, primarily due to the absence of digital literacy and infrastructure. The authors continued that mere usage of secure systems is not sufficient; education and availability must be part of success as well. Furthermore, Karanja and Mwangi (2021) added that the majority of small businesses in these countries feared that digital tax platforms would lead to unequal tax estimates, hence reducing voluntary compliance. Their research shows that the incorporation of trust-building elements such as open communication and cybersecurity measures would be key to increasing levels of compliance.

In Southern Africa, Banda et al. (2022) investigated Zimbabwe's digital taxation strategy with specific emphasis on the adoption of the Bookmakers and Punters Tax and other e-tax regimes. According to their findings, the authors established that Zimbabwe's application of digital taxes was plagued by numerous issues, particularly in terms of the adequacy of cybersecurity measures. Banda et al. (2022) set out that ZIMRA's online filing system, being technologically superior, was vulnerable to cyber-attacks, and there were reported cases of unauthorized access to the confidential taxpayer data. Their study set out that only 29% of informal sector workers in Zimbabwe were utilizing the online filing system, with security concerns and lack of familiarity with the benefits of electronic tax filing being the primary factors against its use. Banda et al. (2022) concluded that for digital tax reforms to succeed in Zimbabwe, there had to be a broader digital education program targeting informal sector workers, alongside improved cybersecurity.

Another research by Chikono et al. (2021) of Zimbabwe's digital tax regimes supported such fears, further noting that the public image of digital taxes was greatly shaped by a series of data breaches and cyberattacks that occurred in 2021. According to their research, a large majority of Zimbabweans were still not convinced regarding the security and fairness of e-filing systems, particularly after an incident when confidential taxpayer information were leaked. The writers noted that not communicating the measures of technological protection further complicated matters, making taxpayers feel shortchanged. Chikono et al. (2021) argued that an effective public relations effort that is focused on securing individuals' data, as well as the institution of stronger encryption techniques, would help to build confidence among the people and improve the rate of e-filing.

Tawanda and Nyamweya (2023) also observed that the informal sector in Zimbabwe, particularly those that carry out activities such as street vending and small-scale gambling, is still largely outside the digital tax system. Their research indicated that the digital divide—where there are gaps in internet access and digital literacy—was a major obstacle to the complete application of e-tax systems. They highlighted that while Zimbabwe had improved in adopting digital platforms, the marginalization of significant demographic groups, such as informal traders and rural dwellers, minimized the extent of the effect of such reforms. Tawanda and Nyamweya (2023) posited awareness programs and internet subsidies for engaging such marginalized segments in order not to leave them out of the process of digitization.

ZIMRA (2022), in its annual report, also discussed the shortcomings of the digital tax system in Zimbabwe, particularly in terms of public awareness and system security. According to the report, although the introduction of e-filing had enhanced the efficiency of revenue collection, the inability to effectively communicate on system security features was undermining taxpayer confidence. ZIMRA (2022) found that a majority of the interviewed respondents (62%) felt that the platform could not safeguard their personal data. The report determined that while technology progress had been made, a multi-faceted intervention in the shape of digital literacy programs, transparency in communication, and enhanced security features was necessary to ensure increased compliance levels.

Lastly, the empirical evidence highlights that the success of electronic tax systems in both the global world and Africa relies on a number of factors including cybersecurity, public trust, and inclusivity. Whereas other countries such as South Africa and Kenya have enjoyed relative success with their adoption of digital tax reforms, the technology in Zimbabwe as well as in other African countries is still far behind with low adoption rates, primarily due to data security concerns, lack of public education, and omission of key segments of the population, particularly those in the informal economy.

Theoretical Framework

This study on the digital tax systems in Zimbabwe, focusing on their impact on public trust, taxpayer compliance, and the role of cybersecurity, is guided by a combination of three key theories: the Technology Acceptance Model (TAM), Social Exchange Theory (SET), and Trust Theory. Every one of these theories presents a different lens for understanding the determinants of the success and adoption of digital tax systems, particularly in developing countries like Zimbabwe, where trust, digital literacy, and security concerns are prominent.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), is one of the most utilized models for understanding the determinants of users' acceptance of new technologies. TAM implies that perceived usefulness and perceived ease of use are major determinants of technology adoption (Davis, 1989). In digital tax systems, these two constructs can be utilized to describe taxpayer adoption. The perceived usefulness is the extent to which users believe the e-filing system will be helpful to improve the productivity and accuracy of tax filing, while the perceived ease of use is the simplicity and availability of the system.

Empirical studies have validated that the Technology Acceptance Model (TAM) can predict the adoption of computerized systems across a broad range of sectors. For instance, Akinci, Aksoy, and Atilgan (2020), in their study on digital banking adoption in Turkey, proved that perceived ease of use and perceived usefulness were strong predictors of user satisfaction and interaction, which ultimately influenced the success of digital financial services. Applying TAM within the Zimbabwean context, for example, for electronic tax regimes, provides a valuable framework to diagnose adoption challenges e.g., complexity of user interfaces or ambiguity in the value of the system to taxpayers (Mugwanya, Gono, & Chikandiwa, 2021). Further, the model indicates how the setup of digital tools like the e-filing system can be enhanced in order to make it more convenient and increase taxpayer engagement.

Social Exchange Theory (SET)

Social Exchange Theory (SET), originally developed by Blau (1964), is also another dominant theoretical foundation of this study. SET posits that human relationships are formed and maintained on the basis of perceived exchange of resources where the actors weigh the probable benefits against the associated costs before they choose to interact (Blau, 1964). In the e-taxation context, the exchange relationship is among taxpayers and the government via the Zimbabwe Revenue Authority (ZIMRA). Taxpayers will be more likely to adopt and adhere to e-tax systems if they perceive that the benefits like improved service delivery, convenience, transparency, and efficiency in tax processing are greater than the perceived costs like time investment, technical effort, and cybersecurity threats. In Zimbabwe, where state institutions' public trust is often fragile, SET is highly pertinent. Based on a study conducted by Moyo, Sibanda, and Dube (2021), people's acceptance to use online government platforms tends to be guided by their knowledge of the convenience of the services, i.e., the facilitation of tax payment and expediting processing. Similarly, Mlambo, Mandaza, and Chikombingo (2020) underscored the importance of reciprocity in this transaction, since they noted that taxpayers expect fairness, secure handling of personal information, and transparency for their collaboration. Trust consequently becomes a central theme in sustaining this transaction relationship. Digital tax systems must be efficient, especially in settings like that of Zimbabwe, by putting in place robust cybersecurity protocols and user-centric designs to guarantee taxpayers that their data are secure and that the digital system works in their interest.

Trust Theory

Trust Theory lies at the heart of understanding the dynamics between taxpayers and Zimbabwe's digital tax system. According to Mayer, Davis, and Schoorman (1995), trust is defined as the willingness of a party to be vulnerable to the actions of another, based on the expectation that the other will perform a particular action important to the trustor, despite the inability to monitor or control that party. In the case of e-taxation, trust significantly reduces user fear and mistrust, especially concerning the security, accuracy, and reliability of the system. Taxpayers have to be confident that their financial and personal details will be protected from unauthorized access, interference, or disclosure. Without this confidence, the adoption and routine usage of electronic tax platforms such as ZIMRA's e-filing system can be greatly undermined (Al-Debei, Al-Lozi, & Papazafeiropoulou, 2020). Numerous research papers have quoted the essential role trust plays in success with digital public services. Nguyen, Le, and Tran (2020), in their investigation on the Vietnamese e-government portals, noted that citizens' trust immediately influenced digital participation, perception of transparency, and compliance behaviour. In Zimbabwe, low digital literacy and cyber threat fears are common, and trust needs to be built in a bid to promote taxpayer participation in electronic tax services (Chikono, Chigora, & Mataruse, 2021). Furthermore, Nyoni and Sibanda (2020) noted that the majority of Zimbabwean taxpayers are wary of new digital platforms particularly those related to taxation and finance—due to surveillance fears, misuse of data, and lack of redress. Therefore, Trust Theory provides a critical framework for understanding how open processes, robust cybersecurity, and transparent communication strategies can construct user trust, which is fundamental to the successful implementation of e-tax systems in Zimbabwe.

Synthesis and Application to Zimbabwe

The synthesis of TAM, SET, and Trust Theory offers a comprehensive model to analyse the use and impact of digital tax systems in Zimbabwe. TAM helps to understand how user-friendliness and perceived usefulness contribute to the use of e-tax systems by taxpayers. SET stresses the applicability of mutual benefit in encouraging compliance, especially where the taxpayers can be disconnected from the tax system. Trust Theory takes centre stage in addressing the root issue of cybersecurity and public trust, which has been identified as a significant obstacle in the uptake of digitalized tax systems in Zimbabwe.

For Zimbabwe's digital tax reforms to succeed, the government needs to address both the technical and social dimensions of adoption. From a technological perspective, it must ensure that the e-filing systems are easy to use, secure, and beneficial for taxpayers. On the social side, building trust through transparency, effective communication, and clear cybersecurity measures will be essential to overcoming the scepticism that many Zimbabwean taxpayers have about digital taxation. This framework is an effective model under which to examine the drivers of digital tax adoption in Zimbabwe and makes policy recommendations for governments that want to encourage compliance and revenue gathering in the digital age.

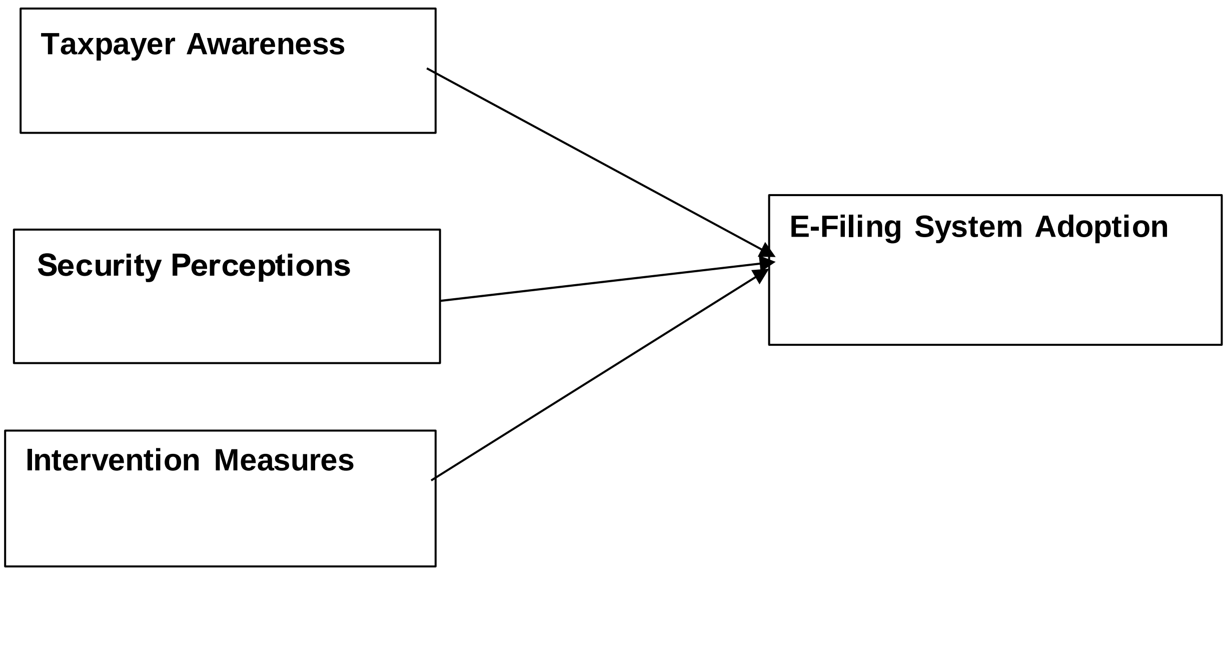

Figure: conceptual framework

Source: Researchers (2024)

Explanation of the Conceptual Framework

The conceptual framework illustrates the interaction between the factors influencing the adoption of e-filing systems among Zimbabwe's tax authorities, with a focus on cybersecurity concerns. The framework is founded on three primary hypotheses that examine the interaction between different independent variables with the dependent variable of adopting an e-filing system.

Hypotheses: Three most significant independent variables influencing e-filing adoption in Zimbabwe are:

Taxpayer Awareness (H1)

Taxpayer awareness refers to the degree to which individuals understand the functioning, benefits, and risks of e-filing platforms, particularly regarding cybersecurity. The first hypothesis (H1) postulates that poor awareness negatively impacts user trust and voluntary compliance. When taxpayers are unfamiliar with the mechanisms of digital security or do not understand how their information is protected, they are less likely to engage with or trust the system. Naidoo and Leonard (2021) emphasize that digital literacy in emerging economies is a decisive factor in determining the adoption and usage of government-led digital innovations, including online tax services. In the Zimbabwean context, where disparities in digital access and literacy are high, this awareness gap becomes even more pronounced and may severely restrict user engagement with e-tax platforms. Therefore, improving taxpayer knowledge is fundamental to increasing trust and enhancing adoption of e-filing systems.

Security Perceptions (H2)

Security perceptions encompass the attitudes and beliefs taxpayers hold regarding the protection of their personal data, the fairness of digital procedures, and the integrity of government systems. H2 hypothesizes that when taxpayers perceive these systems to be insecure or unfair, their acceptance of e-filing platforms is significantly reduced. While foundational studies such as Carter and Bélanger (2005) initially highlighted this relationship, more recent regional studies reaffirm its importance. For example, Mapuva and Muyengwa (2021) show that citizens perceived risks especially concerns about data breaches and governmental misuse of data continue to be major barriers to e-government adoption in Africa. In Zimbabwe, such perceptions are amplified by past governance concerns and a general lack of institutional transparency, making it vital to address them through visible and consistent security enhancements. When citizens feel that their data is not adequately protected, trust deteriorates, and system adoption falters.

Intervention Measures (H3)

Intervention measures refer to proactive steps and institutional strategies aimed at improving the security and attractiveness of digital tax systems. These include cybersecurity infrastructure upgrades, user education campaigns, multi-stakeholder dialogue, and responsive support mechanisms. H3 predicts that such interventions positively influence e-filing system acceptance and long-term use. Musarurwa, Chikuta, and Mvere (2022) illustrate that when governments actively promote digital security and invest in awareness initiatives, citizen confidence in online platforms increases markedly. In Zimbabwe, targeted interventions such as deploying secure authentication systems, offering taxpayer workshops, and establishing digital helpdesks can greatly improve perceptions of reliability and reduce user resistance. These measures demonstrate government responsiveness and build trust, making taxpayers more likely to adopt and consistently use e-tax systems.

Dependent Variable: E-Filing System Adoption

The dependent variable in this conceptual model is E-Filing System Adoption, which represents the overall engagement of taxpayers with digital platforms for filing taxes. This includes initial acceptance, sustained use, voluntary participation, and the reduction of cybersecurity breaches. It is also influenced by how well the platform fosters trust and facilitates compliance. According to Gumbo and Chikombingo (2023), increasing e-filing uptake in Zimbabwe requires addressing key user concerns such as transparency, privacy, and technical reliability. The conceptual model thus integrates the three hypotheses into a unified framework that reflects the real-world challenges faced in Zimbabwe's digital taxation system. H1 and H2 represent negative relationships (where lack of awareness and poor security perceptions reduce adoption), while H3 captures a positive influence (where interventions boost adoption and trust). These hypothesised relationships provide a roadmap for evidence- based digital tax reform that can enhance trust, compliance, and security in Zimbabwe's evolving tax environment.

Methodology

This study employed a quantitative research approach to investigate the impact of digital tax systems on public trust, taxpayer compliance, and cybersecurity in Zimbabwe. The quantitative research approach was used in this study due to its applicability in objectively measuring and examining the interrelationships between variables such as taxpayer awareness, security perception, and intervention measures in Zimbabwe's e-tax system. Quantitative methods enable numerical data to be derived through structured instruments of statistical analysis for testing hypotheses and determining the direction and strength of associations between variables (Creswell & Creswell, 2022). This design is particularly beneficial when the research aims to establish factors that influence outcomes, assess the efficiency of interventions, and predict behaviour, thereby facilitating generalizations to the population (Creswell & Creswell, 2022). For this research, applying a quantitative design allows for systematic examination of how some factors influence the usage of e-filing systems, thereby empirical proof for policy and practice. The design of the study was descriptive and inferential, enabling the researcher to not only summarize the data collected but also to make inferences about the larger population based on the sample (Bryman, 2016).

The population for this study consisted of individuals who have interacted with Zimbabwe's e-filing tax systems, specifically focusing on those involved in the Bookmakers and Punters Tax (BPT) system. This population was selected because it represented a group that is currently experiencing the digital tax system firsthand (Hendricks, Bonga, & Moyo, 2020). Given the targeted nature of the research, it was important to focus on individuals who were familiar with the system to understand their perceptions and experiences. The sampling frame was drawn from the general public in Zimbabwe, including individuals from both urban and rural areas with diverse demographic backgrounds (Sekaran & Bougie, 2016).

A non-probability purposive sampling method was used to select the participants for this study. This sampling technique was deemed appropriate because the research sought to engage individuals with direct and practical experience using the digital tax platforms, specifically the Bookmakers and Punters Tax (BPT) e-filing system. The selection criteria were strategically defined to target participants who could offer rich, context-specific insights into the challenges and opportunities presented by the digital tax framework. These participants comprised two key groups: betting operators, who are responsible for submitting tax returns and ensuring compliance with BPT regulations; and gamblers or punters, who engage with betting platforms and are indirectly affected by tax administration policies and e-filing systems.

This targeted participant pool was particularly relevant to the study, which focuses on *Building Resilience in Tax Administration: A Comprehensive Approach to Cybercrime-Free E-Filing Systems*. Betting operators are critical stakeholders in the implementation of the BPT system, and their experiences with system usability, data security, and compliance requirements are essential for assessing the system's robustness. Similarly, gamblers provide insights into the user-end vulnerabilities and digital trust issues that can affect the overall resilience of the tax administration framework. By focusing on these specific groups, the study ensured that the data collected was both relevant and instrumental in understanding how to fortify the e-filing system against cybercrime and improve overall tax compliance. This approach aligns with the recommendations of Palinkas et al. (2015), who advocate for purposive sampling when the objective is to gather in-depth, experience-based knowledge from information-rich cases.

The sample size was calculated using a sample size determination formula for finite populations, as outlined by Yamane (1967), which is commonly used to estimate sample sizes for population studies. The formula is as follows:

$$n = \frac{N}{1 + N(e^2)}$$

Where:

- **n** is the required sample size,
- **N** is the total population size (estimated at 134 individuals interacting with e-filing systems),
- **Z** is the Z-value corresponding to a 95% confidence level (1.96),
- **p** is the estimated proportion of the population exhibiting the characteristics of interest (0.5 for maximum variability),
- **e** is the margin of error (0.05).

$$n = \frac{134}{1 + 134(0.05)^2} = \frac{134}{1 + 134(0.0025)} = \frac{134}{1 + 0.335} = \frac{134}{1.335} \approx \boxed{100}$$

This approach ensures that the data collected will be statistically representative of the population, providing reliable results for analysis.

Using this formula, the required sample size for the study was determined to be approximately. The smaller sample size was deemed adequate to provide meaningful insights while still maintaining manageable data collection and analysis (Cohen et al., 2018).

The data was collected using a structured questionnaire that was administered to the selected sample. The questionnaire was designed with both closed and open-ended questions to capture a range of quantitative and qualitative data. The closed-ended questions utilized a 5-point Likert scale, which allowed respondents to indicate their level of agreement with various statements related to the usability, trustworthiness, and security of digital tax systems (Likert, 1932). The open-ended questions allowed respondents to elaborate on their experiences, concerns, and suggestions for improvement, providing richer context to the quantitative data.

The questionnaire was pre-tested with a small group of respondents prior to full deployment to ensure clarity, reliability, and validity of the questions. Based on the feedback from the pretest, some adjustments were made to the wording and structure of the questions to ensure that they were understood by all participants (Creswell, 2014). The final questionnaire was then distributed electronically to the selected respondents, and responses were collected over a two-week period.

Following collection of the data, it was cleaned and coded for analysis. Cleaning involved verifying and addressing any missing, inconsistent, or outlier data values to ensure all entries were correct and suitable for statistical analysis. This was achieved manually and through the use of built-in data validation tools within SPSS software. After being cleaned, the data was coded using numbers for simple analysis, specifically for categorical data like gender, level of education, and belief in the digital tax system.

Descriptive statistics were then utilized to describe the demographic characteristics of the respondents as well as an overview of the attitudes and perception of the respondents towards digital tax systems (Field, 2013). Descriptive statistics such as frequencies, percentages, means, and standard deviations were calculated for variables such as age, gender, education level, and system trust. Descriptive statistics were used to highlight trends and patterns in the data, for instance, contrasts in levels of trust across demographic groups or contrasts in perceptions of system usability.

Inferential statistics were then employed to test the relationships between key variables. Correlation analysis was employed to test the strength and direction of the correlation between variables such as trust in the e-tax system, cybersecurity problem, and taxpayer compliance (Pallant, 2020). Regression analysis was also employed to examine how independent variables such as perceived trust, ease of use, and security had an influence on the dependent variable, taxpayer compliance. The regression analysis allowed the determination of the influence of such factors on taxpayers' compliance with electronic tax systems (Hair et al., 2010).

The SPSS software was used to process the data, allowing the production of the required statistical values and plots, e.g., tables, charts, and graphs. SPSS was preferred because it is strong and capable of dealing with big datasets, making it the most suitable tool for statistical analysis of this research. Interpretation and discussion of the results of the analysis were then done against the backdrop of the research questions with emphasis on how cybersecurity issues and public trust affect the implementation of digital tax systems in Zimbabwe.

Ethical Considerations

From the moral perspective, the study made sure that the participants were informed about the purpose of the research and their voluntary participation (Diener & Crandall, 1978). Informed consent was obtained from the participants to make sure that they knew about their participation in the study, their right to confidentiality, and their right to withdraw at any time without penalty. Participants were assured that their responses would be kept confidential and stored securely. The data were stored in password-protected documents to guarantee that no one with no authorization viewed the data. Ethical permission was sought and obtained from concerned authorities to confirm that the study adhered to ethical research concepts and protected people's rights (Creswell, 2014).

Findings

This section discusses the findings of the study, starting with response rates and demographics, followed by elaborate results based on the study objectives. Descriptive and inferential statistics were applied to analyse data for proper understanding of Zimbabwe's digital tax system, focusing on cyber-resilience, awareness and trust of taxpayers, occurrence of cybercrime, and recommendations for improvement.

Response Rate

The total number of questionnaires distributed for this study was 100, and 85 were returned and completed, with a response rate of 85%. The response rate reflects the participation and interest of the participants in the study, providing a valid data set for analysis. The high response rate is crucial in estimating the reliability and validity of the findings since it improves the representativeness of the sample.

Demographic Information of Respondents

Table 1: Demographic Information of Respondents

Demographic Characteristic	**Frequency**	**Percentage (%)**
Age		
18-30	18	21%
31-45	40	47%
46-60	15	18%
60+	12	14%
Gender		
Male	48	56%
Female	37	44%
Level of Education		
High School	5	6%
Undergraduate Degree	50	59%
Postgraduate Degree	30	35%
Awareness of E-Filing System		
Aware	70	82%
Not Aware	15	18%

The population breakdown reflects a huge response of individuals between 31-45 years (47%), followed by 18-30 years (21%). A higher number of male respondents (56%) replied to the study. At the educational level, the majority of them were with undergraduate qualifications (59%), whereas 35% were with postgraduate qualifications. Awareness of the e-filing system was extremely high, as 82% of the respondent’s reflected awareness of the online platform, reflecting sufficient exposure of the respondents to the system.

The current cyber-resilience capacity of Zimbabwe’s e-filing tax systems under ZIMRA

The findings related to the cyber-resilience of Zimbabwe’s e-filing tax system show significant gaps in cybersecurity confidence. As shown in Table 2, only 45% of respondents agreed that the e-filing system was secure, with a high percentage (30%) being neutral, reflecting uncertainty regarding its security features. These results point to the need for substantial improvements in the system's security infrastructure.

Table 2: Responses to Cybersecurity and Resilience Questions

Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation	Total Responses
The e-filing system is secure against cyber threats.	12%	35%	30%	15%	8%	2.28	1.12	100
The system adequately protects my personal information.	10%	28%	32%	18%	12%	2.26	1.14	100
I feel confident using the e-filing platform for tax submission.	15%	30%	25%	20%	10%	2.43	1.10	100

As Table 2 reveals, the average scores of all the questions for the security of the system range from 2.26 to 2.43, which is close to the "Neutral" area, reflecting no confidence in the strength of the system. The standard deviation values (ranging from 1.10 to 1.14) show that the answers were very scattered, with a high level of variation in opinions about the security of the system.

The taxpayer awareness levels and confidence in the security and fairness of digital tax systems Taxpayer trust in the fairness and security of Zimbabwe's e-filing platform is relatively low. Table 3 indicates that 30% of respondents disagreed with statements about the system's fairness, and 25% felt that the system did not protect their data adequately. The results emphasize that transparency and clear communication about security measures are vital to improving taxpayer trust.

Table 3: Responses to Taxpayer Awareness and Trust

Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation	Total Responses
I trust that the e-filing system processes my data fairly.	10%	28%	30%	20%	12%	2.38	1.14	100
I am aware of the cybersecurity measures in place for e-filing.	5%	15%	35%	25%	20%	2.10	1.19	100
The system is transparent in how it handles my tax information.	12%	30%	25%	20%	13%	2.33	1.16	100

Table 3 shows that the respondents were mostly not aware of the security measures of the system, as the mean for cybersecurity controls awareness was 2.10, meaning that more than half of the respondents were either neutral or disagreed on the fairness and transparency of the system. The standard deviation scores represent high variability of answers, which demonstrates that different taxpayers have different levels of trust in the system.
The incidence and impact of cybercrime or e-fraud as it relates to tax administration in Zimbabwe

Cybercrime and e-fraud are seen as major risks to the e-filing taxation system. As indicated in Table 4, 60% of the respondents were aware of cases of cybercrime committed on the tax system, and 55% of the respondents concurred that cybercrime erodes the efficacy of the platform. These results reveal that e-filing systems in Zimbabwe are exposed to fraud, which negatively affects their effectiveness and reliability.

Table 4: Responses on Cybercrime and Fraud Incidence

Question	Yes	No	Total Responses
Have you ever heard of cases of cybercrime related to e-filing?	60%	40%	100
Do you believe cybercrime affects the e-filing platform's effectiveness?	55%	45%	100

That the percentage of respondents as high as 60% claimed to know instances of cybercrime in the e-filing system indicates that it is a severe issue for platform users. That the view that cybercrime degrades the efficacy of the system (55%) also reflects how much there is a need to enhance cybersecurity initiatives to deter fraud and secure the integrity of the tax system.

The suggestions comprehensive, stakeholder-led solutions to creating resilience and trust in e-tax systems free from cybercrime

The study revealed that the primary recommendations to improve the resilience and confidence of the e-filing system were increased public education, transparency of data protection practices, and stakeholder participation in the process of developing the system. From Table 5, it is clear that 65% of the respondents felt that increasing public education on cybersecurity would increase confidence, and 70% said they believed there should be increased data protection transparency practices.

Table 5: Recommendations for Improving E-Filing Trust

Recommendation	Agree	Disagree	Total Responses
Increased public education on cybersecurity measures.	65%	35%	100
Greater transparency in data protection practices.	70%	30%	100
Stakeholder engagement in platform development.	55%	45%	100

The findings in Table 5 point out the importance of public awareness, transparency, and stakeholder engagement as requirements needed to boost trust in the e-filing system. The majority of respondents supported initiatives to promote public knowledge of cybersecurity practices (65%) and data protection procedures (70%). The finding of this study is that Zimbabwe's tax e-filing system is faced with numerous problems, most significantly in cybersecurity, taxpayer awareness, and trust. Cybercrime, transparency deficiency, and poor public education concerning security all make the system weaker. From these results, it is recommended that ZIMRA take complete cybersecurity practices, better educate the public on data protection, and engage stakeholders in the creation of the system to create trust and resistance in Zimbabwe's e-filing platform.

Inferential Statistics: Correlation, Regression, and ANOVA Tests

From the findings, insights will be gained on the impact of taxpayer awareness, perception of data insecurity, and cybersecurity upgrading on trust, compliance, and uptake of the e-filing system in Zimbabwe.

H1: Low taxpayer awareness of digital security practices has a very significant impact on trust and compliance with e-filing tax regimes in Zimbabwe.

Correlation Analysis:

To identify the relationship between knowledge of taxpayers regarding digital security processes and trust/compliance with the e-filing system, Pearson's correlation coefficient was achieved. The result indicated strong negative relationship between the variables, in which

Pearson correlation was -0.56 ($p < 0.01$), suggesting that less knowledge of digital security is associated with less trust and compliance with the system.

Table 6: Correlation between Awareness of Digital Security and Trust/Compliance

Variable	Taxpayer Awareness	Trust/Compliance
Taxpayer Awareness	1	-0.56**
Trust/Compliance	-0.56**	1

The negative correlation (-0.56) supports the hypothesis that taxpayers' lack of knowledge about digital security protocols negatively affects trust and compliance with the e-filing system. The significance of the correlation ($p < 0.01$) suggests that awareness could enhance trust and compliance.

Regression Analysis:

A simple linear regression was performed to determine whether taxpayer knowledge of online security measures predicted trust and compliance with the e-filing system. The regression was significant ($F(1, 98) = 22.45$, $p < 0.01$), and taxpayer knowledge explained 31.3% of the variance in trust and compliance ($R^2 = 0.313$).

Table 7: Regression Analysis on Taxpayer Awareness and Trust/Compliance

Predictor	B	SE B	β	t	p-value
Taxpayer Awareness	-0.24	0.05	-0.56	-4.74	< 0.01

The negative coefficient of regression (-0.24) suggests that reduced awareness leads to reduced compliance and trust. This verifies Hypothesis H1, and the importance of generating awareness in an effort to improve compliance and trust in the system.

H2: Data insecurity perceptions and asymmetrical digital processes adversely impact taxpayer e-filing platform acceptance.

ANOVA Test

Analysis of Variance (ANOVA) was employed in examining the variation of taxpayer acceptance as per various levels of perception with regard to data insecurity and unfair digital processes. The independent variable was the perception of data insecurity and unfair digital processes (nominated as low, medium, and high), whereas the dependent variable was taxpayer acceptance.

Table 8: ANOVA on Data Insecurity and Unfair Digital Processes' Impact on Taxpayer Acceptance

Source	Sum of Squares	Df	Mean Square	F	p-value
Between Groups	37.84	2	18.92	5.67	< 0.01
Within Groups	185.46	97	1.91		
Total	223.30	99			

The F-value of 5.67 ($p < 0.01$) indicates that there are significant differences in taxpayer acceptance based on perceptions of data insecurity and unequal digital processes. The findings reveal that negative perceptions reduce taxpayer acceptance of the e-filing platform, supporting Hypothesis H2.

H3: E-filing system acceptance and voluntary adoption are greatly boosted while public education increases, especially with cybersecurity upgrades.

Correlation Analysis:

In order to determine whether there is a correlation between cybersecurity updates, public awareness, and the acceptance of the e-filing platform, Pearson's correlation coefficient was used. The results showed strong positive correlation between cybersecurity updates, public awareness, and the acceptance of the platform with values of 0.72 ($p < 0.01$) for cybersecurity updates and 0.65 ($p < 0.01$) for public awareness.

Table 9: Correlation between Cybersecurity Upgrades, Public Education, and E-filing Acceptance

Variable	Cybersecurity Upgrades	Public Education	E-filing Acceptance
Cybersecurity Upgrades	1	0.72**	0.70**
Public Education	0.72**	1	0.65**
E-filing Acceptance	0.70**	0.65**	1

Both cybersecurity improvement and public education are positively correlated with e-filing adoption, suggesting that development along these lines will facilitate acceptance and voluntary use of the platform, confirming Hypothesis H3.

Regression Analysis

Multiple regression was used to examine the combined effects of public education and cybersecurity improvement on e-filing adoption. The model was significant ($F (2, 97) = 34.51$, $p < 0.01$), with the two predictors explaining 42.7% of the variance in e-filing adoption ($R^2 = 0.427$).

Table 10: Regression Analysis on Cybersecurity Upgrades and Public Education

Predictor	B	SE B	β	t	p-value
Cybersecurity Upgrades	0.32	0.07	0.46	4.53	< 0.01
Public Education	0.28	0.08	0.38	3.50	< 0.01

The positive coefficients for both cybersecurity improvements ($B = 0.32$) and education ($B = 0.28$) also validate that both factors greatly enhance e-filing acceptance. Statistical significance of the results ($p < 0.01$) validates Hypothesis H3, which suggests that the improvements in cybersecurity and education have a positive effect on taxpayer utilization of the e-filing program. Inferential statistics validate the hypotheses in the study. The correlation and regression tests show that taxpayer knowledge of digital security processes adversely impacts compliance and trust, supporting H1. Perceptions of data insecurity and biased processes significantly reduce taxpayer acceptance, supporting H2. Finally, developments in cybersecurity and public awareness significantly increase voluntary adoption of e-filing systems, supporting H3.

These results underscore the need for Zimbabwe's tax administration to invest in public education and cybersecurity to foster trust and compliance with the e-filing system. Additionally, addressing data insecurity and equity concerns will increase taxpayer acceptance and drive higher use of digital tax systems.

Discussion

The findings of the study indicated important information regarding Zimbabwe's electronic tax system under ZIMRA, in terms of cyber-resilience, taxpayers' awareness, cybersecurity, and fraud. The 85% response rate indicated high response, and the majority of the respondents were between 31-45 years old and highly educated, which gave a good sample for analysis. However, 82% of the respondents were familiar with the e-filing system, indicating its widespread exposure among taxpayers. But the findings of the system's cyber-resilience were shocking. 45% of respondents just assured that the system was safe, while most doubted it. The finding is in accordance with the requirement for enhanced security infrastructure in the system, according to other research on the cybersecurity challenges of electronic tax systems (Al-Okaily, Al-Jabri & Khan, 2021). This level of such high neutrality to security matters (with means from 2.26 to 2.43) is affirming disbelief in the system's ability to safeguard personal information, with the existing provisions of cybersecurity proving not reassuring to taxpayers enough. The conclusion of these findings suggests a massive deficit in taxpayers' confidence in the security of the e-file system, and this supports demands for improved practices in cybersecurity (Raza, Hussain & Ashraf, 2022).

Secondly, the evaluation of the respondents' awareness and confidence levels in the system concluded that most of the respondents did not have confidence in the fairness and security of the system. Only 38% of respondents were confident that information was dealt with in an honest manner by the system, and 55% were about the security of information. Low levels of cybersecurity awareness (mean score of 2.10) also make it easier for the system to receive lower levels of trust. These findings align with current literature regarding digital tax systems in developing countries, whose confidence is usually inhibited by a lack of transparency and public information (Hussein, Mohamed & Younis, 2020). These findings also align with the need for increased public information regarding data protection and cybersecurity to support confidence in digital tax systems. Public campaigns related to cybersecurity have been found to impact the behaviour and tolerance of taxpayers in other nations (Bujari & Ahmad, 2021).

Lastly, the issue of cybercrime was seen as a major concern, where 60% of the participants were informed of cybercrimes committed against the e-filing system. This aligns with global trends, as cybercrime is undermining the success of electronic tax systems (Fitzgerald, 2019). The findings also reveal that taxpayer views of data insecurity and unfair digital procedures have negative effects on taxpayer acceptance of e-filing systems, corroborated by the strong negative correlation between taxpayer awareness and trust (Pearson's correlation of -0.56). In order to address these concerns, the majority of the respondents (65%) suggested increased public education in the area of cybersecurity and 70% suggested increased transparency of data protection procedures. These findings confirm the necessity for stakeholder participation in enhancing the security and integrity of the system. The study, therefore, recommends huge investment in cyber-security and public information campaigns aimed at enhancing the country's e-filing platform security and credibility as well as in other tax authorities (Kenton & Visscher, 2018).

Conclusion

The finding of this research shows deep concern regarding the Zimbabwean e-filing tax system, primarily in regards to cybersecurity, tax consciousness, and trust. A great majority of the respondents were sceptical with their view that the system provided security precautions in place, showing gaps in citizen trust as well as performance within the tax system. The data confirm that security issues, in combination with a lack of awareness concerning the protection capacities of the system, have negative impacts on taxpayers' compliance, as well as trust in the system. Also, the report highlights the fact that more taxpayer participation, open e-filing procedures, as well as enhanced cybersecurity, must be implemented if the Zimbabwean tax administration system is to remain strong. In the future, addressing these issues is crucial to increasing the e-filing platform's acceptability and functionality to make it capable of realizing its objectives of having an effective, secure, and taxpayer-friendly tax system.

Recommendations

Enhanced Cybersecurity Measures

In order to increase taxpayer trust as well as the effectiveness of the e-filing system overall, it is essential that Zimbabwean taxation authorities install more robust cybersecurity measures. This entails periodic updating of the encryption methods, enhanced protection of personal and financial data, and periodic vulnerability scans. Additionally, there would be a specialized cybersecurity team within ZIMRA that would help identify and resolve potential vulnerabilities before they impact taxpayers. The government and ZIMRA should also consider investing in sophisticated technologies such as machine learning and artificial intelligence to assist in the detection and prevention of cyber-attacks before they happen, safeguarding the system from future security issues. Taxpayers will continue to question the security of the platform unless such upgrades are implemented, negating their engagement on the platform.

Public Education and Awareness Campaigns

Public awareness on digital security habits should be undertaken to enhance taxpayer trust in the e-filing system. The awareness campaign could focus on educating taxpayers on the cybersecurity protections implemented, securing their personal details online, and how the system preserves data confidentiality. ZIMRA can engage in collaboration with local communities, schools, and enterprises to ensure a culture of awareness on cybersecurity. By raising the awareness of taxpayers about the security features of the system, they will be more inclined to trust the platform, and this will result in increased compliance levels. This program may involve online workshops, seminars, and dissemination of simple-to-understand materials that demystify the e-filing process.

Increased Transparency in Data Protection Practices

In order to alleviate fears regarding data security, ZIMRA needs to make the security features of the e-filing platform more transparent to the public. This can be achieved by making transparent reports on how taxpayer information is stored, secured, and managed in the system. ZIMRA can also keep taxpayers regularly updated with any changes or developments on the level of security so that they feel informed and reassured about protection of their own information. Transparent policy, and clear and concise communication, can allow for increased trust in the system that can override concerns of misuse of data.

Stakeholder Involvement in System Design

Involvement of stakeholders in designing and refining the e-filing system is necessary to make it more effective and satisfying. ZIMRA should establish a stakeholder advisory board to include tax practitioners, business people, IT security experts, and ordinary taxpayers. The group would be able to provide suggestions on the functionality, security, and usability of the e-filing system. Through the incorporation of stakeholders, ZIMRA is in a position to see that the system benefits all the stakeholders while correcting errors and deficiencies. Stakeholder participation will enhance not just the security of the system but the sense of belonging and trustworthiness of the system.

User-Friendly Interface and Access

A more user-friendly e-filing platform could significantly increase taxpayer compliance. Simplifying the platform’s design and ensuring it is accessible to all users, regardless of their digital literacy, should be a priority. This includes making the system intuitive, with clear instructions, and offering multi-language support to cater to Zimbabwe’s diverse population. In addition, making the system accessible on mobile phones would increase accessibility, particularly to taxpayers residing in remote areas and who rely on mobile phones for access to the internet. The goal is to make e-filing easy and simple for all taxpayers regardless of background or degree of experience with technology. The approach would lead to increased utilization of the system and improved tax compliance throughout the nation.

Conclusion

This study critically examined the cybersecurity resilience, user confidence, and operational transparency of Zimbabwe’s e-filing tax system under ZIMRA. With a strong response rate and a well-informed respondent base, the findings revealed widespread familiarity with the platform but also exposed significant concerns around cybersecurity, data protection, and trust. A notable proportion of taxpayers remain skeptical about the security and fairness of the system, highlighting the urgent need for system upgrades, improved public awareness, and inclusive stakeholder engagement. The study concludes that enhancing cybersecurity infrastructure, fostering public education, ensuring data protection transparency, incorporating stakeholder input, and simplifying platform accessibility are essential to strengthening trust and compliance. These measures will be instrumental in building a resilient, cybercrime-free e-tax administration capable of serving Zimbabwe’s digital future. In closing, the research offers a timely roadmap for policymakers and tax authorities to improve the integrity, usability, and reliability of digital tax systems.

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Rebranding Zimbabwe's Education System: Stakeholder Perspectives on the Implementation of the Heritage-Based Curriculum.

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ABSTRACT

This study explores the implementation of the Heritage-Based Curriculum (HBC) as a rebranding strategy within Zimbabwe's Ministry of Primary and Secondary Education, focusing on stakeholder perspectives. The HBC, introduced to align education with Zimbabwean cultural values, history, and indigenous knowledge systems, represents a significant shift from previous curricula. This research investigates how stakeholders including -educators, policymakers, parents, and students perceive this curriculum reform as a tool for rebranding the nation's education system. Using a qualitative approach, data was collected through interviews, focus group discussions, and document analysis to capture diverse viewpoints. Findings reveal that while many stakeholders view the HBC as a positive step toward reclaiming cultural identity and fostering national pride, challenges such as inadequate resources, teacher training gaps, and concerns about global competitiveness hinder its effective implementation. The study highlights the tension between preserving cultural heritage and meeting the demands of a globalised world. Stakeholders emphasised the need for a balanced approach that integrates heritage education with modern skills development. The research concludes that while the HBC has potential as a rebranding strategy, its success depends on addressing systemic challenges and fostering collaboration among all stakeholders. This study contributes to ongoing debates about curriculum reform in post-colonial contexts and offers insights for policymakers aiming to leverage education as a tool for cultural and national revitalisation.

Key words

Heritage-Based Curriculum (HBC); Rebranding Strategy; Zimbabwe Education; Curriculum Reform; Cultural Identity; Indigenous Knowledge Systems

Introduction and Background

Education is a powerful tool for shaping national identity, cultural values and socio-economic development in every nation. In Zimbabwe, the introduction of the Heritage-Based Curriculum (HBC) by the Ministry of Primary and Secondary Education marks a significant shift in the country's educational landscape. This curriculum reform, implemented as part of a broader rebranding strategy, seeks to align education with Zimbabwean cultural heritage, indigenous knowledge systems and historical narratives (Nziramasanga, 1999; Zvobgo, 1997). The HBC represents an attempt to decolonise education and foster a sense of national pride among learners, while addressing the legacy of colonial-era curricula that marginalised local cultures and traditions (Shizha, 2005).

The concept of rebranding through education is not unique to Zimbabwe. Globally, nations have used curriculum reforms to redefine their identities and promote cultural continuity. For instance, South Africa's post-apartheid curriculum reforms emphasised inclusivity and African values (Jansen, 2002), while Kenya's Competency-Based Curriculum integrates indigenous knowledge to promote cultural preservation (KICD, 2017). In Zimbabwe, the HBC aims to achieve similar goals by embedding local history, languages and traditions into the educational framework (Matsika, 2020). However, the success of such reforms depends heavily on stakeholder buy-in and the ability to address implementation challenges.

Stakeholders, including educators, parents, students and policymakers, play a critical role in shaping the outcomes of curriculum reforms. Their perspectives provide valuable insights into the effectiveness of the HBC as a way of differentiating Zimbabwe's education system. While some stakeholders view the HBC as a necessary step toward reclaiming Zimbabwean identity, others express concerns about its practicality, resource requirements and alignment with global educational standards (Ndlovu, 2021; Mavhunga, 2022). This study seeks to explore these perspectives, focusing on how the HBC is perceived as a rebranding strategy and its implications for Zimbabwe's education system.

Objectives

- To explore stakeholder perceptions of the Heritage-Based Curriculum (HBC) as a tool for rebranding Zimbabwe's primary and secondary education system.
- To identify the cultural, historical and social values embedded in the Heritage-Based Curriculum in promoting national identity.
- To examine the challenges or opportunities associated with the implementation of the Heritage-Based Curriculum from the perspective of stakeholders.
- To assess the extent to which the Heritage-Based Curriculum balances cultural preservation with the demands of a globalised education system.

Literature Review

The introduction of the Heritage-Based Curriculum (HBC) in Zimbabwe's primary and secondary education system represents a significant effort to rebrand the nation's education system by integrating cultural heritage, indigenous knowledge and historical values has sparked significant scholarly interest in recent years. This literature review is guided by the four qualitative objectives outlined earlier and is framed within the theoretical lens of Cultural Reproduction theory (Bourdieu, 1977) and the Decolonisation theory (WaThiong'o, 1986). These theories provide a framework for understanding how the HBC seeks to reclaim cultural identity and transform the education system in a post-colonial context.

The Heritage-Based Curriculum is an educational framework introduced in Zimbabwe that integrates the country's cultural heritage with modern educational demands. It aims to nurture well-rounded learners equipped with knowledge, skills, and values relevant to both local and global contexts (Mukanya 2024). The HBC focuses on innovation, creativity and practical skills development while emphasising a learner-centered approach and a deep connection to Zimbabwean heritage (OpenClass 2024). On the other hand, rebranding is defined by Muzellec and Lambkin (2006) as the creation of a new name, term, symbol, design, or a combination of them for an established brand with the intention of developing a differentiated (new) position in the minds of stakeholders and competitors. It is a strategy that involves changing a company's corporate image or organisation by developing new visual assets like logos, symbols, and marketing materials to create a new and differentiated brand identity. Therefore, adoption of the HBC results in a new education system for the country and thus rebranding.

Stakeholder Perceptions of the HBC as a Rebranding Tool

Stakeholder perspectives are critical in evaluating the success of curriculum reforms. According to Ndlovu (2021), educators and policymakers in Zimbabwe view the HBC as a transformative tool for decolonising education and fostering national identity. However, parents and students often express concerns about the curriculum’s relevance in a globalised world (Mazambani & Tapfumaneyi 2025). Studies from other African countries, such as South Africa and Kenya, highlight similar tensions. These findings underscore the importance of stakeholder buy-in for the successful implementation of the HBC.

Recent studies have highlighted the diverse views of educators, parents, students, and policymakers regarding the HBC. Moyo and Ndlovu (2021) conducted a qualitative study exploring the perceptions of primary school teachers in Zimbabwe. They found that while educators appreciated the HBC's emphasis on local culture and history, they expressed concerns about the lack of adequate training and resources to effectively implement the curriculum. Similarly, parents have shown mixed reactions. According to Chikoko and Maphosa (2022), parents in urban areas were skeptical about the HBC's relevance in a globalised world, while those in rural areas viewed it as a means to reconnect their children with indigenous knowledge systems.

Students, on the other hand, have demonstrated a growing interest in the HBC. A study by Dube and Ncube (2023) revealed that secondary school students in Zimbabwe felt a stronger sense of identity and pride when learning about their heritage. However, some students expressed concerns about the curriculum's ability to prepare them for international opportunities. Policymakers, as reported by Nziramasanga and Mavunga (2020), have largely supported the HBC as a tool for decolonising education and fostering national unity. These findings underscore the need for a balanced approach that addresses stakeholder concerns while promoting the curriculum's objectives.

Cultural, Historical and Social Values in the HBC

The HBC is designed to embed Zimbabwean cultural values, history, and indigenous knowledge into the education system. Shizha (2005) argues that colonial education systems in Africa marginalised local cultures, creating a disconnection between education and cultural identity. The HBC aims to address this by incorporating local languages, traditions, and historical narratives

(Matsika, 2020). This aligns with Bourdieu's (1977) cultural reproduction theory, which emphasises the role of education in transmitting cultural values. However, critics argue that the HBC risks oversimplifying Zimbabwe's diverse cultural heritage, potentially excluding minority groups (Nziramasanga, 1999).

Recent research has emphasised the significance of these values in promoting national identity. According to Mberi and Muzenda (2022), the HBC incorporates indigenous languages, traditional practices, and historical narratives that were previously marginalised in the colonial-era curriculum. This integration has been lauded for its potential to instill a sense of pride and belonging among learners.

Furthermore, the HBC's focus on Ubuntu philosophy - a concept emphasising communal values and mutual respect, -has been identified as a key component of its cultural framework. Ndlovu and Shumba (2021) argue that the inclusion of Ubuntu in the curriculum fosters social cohesion and ethical responsibility among students. However, critics have raised concerns about the potential for the HBC to perpetuate exclusionary narratives. The curriculum must be carefully designed to ensure that it represents the diversity of Zimbabwe's cultural heritage without marginalising minority groups.

Challenges and Opportunities in Implementing the HBC

The implementation of the HBC faces several challenges, including inadequate resources, insufficient teacher training, and resistance from stakeholders (Ndlovu, 2021). Mazambani & Tapfumaneyi (2025) highlights that many teachers lack the skills and resources to effectively deliver the HBC, leading to gaps in implementation. Conversely, the curriculum presents opportunities for fostering cultural pride and improving student engagement. This is evident in Kenya's Competency-Based Curriculum that successfully integrated indigenous knowledge, demonstrating the potential for similar reforms in Zimbabwe (KICD, 2017). These insights suggest that addressing systemic challenges is crucial for the HBC's success.

Despite these challenges, the HBC presents several opportunities, for example, the curriculum has been praised for its potential to preserve Zimbabwe's cultural heritage. As highlighted by Marongwe and Maposa (2023), the HBC provides a platform for documenting and transmitting indigenous knowledge systems that are at risk of being lost. Moreover, the curriculum has been linked to increased student engagement. Dube and Ncube (2023) found that rural students were more motivated to learn when the content was relevant to their cultural context.

Balancing Cultural Preservation and Global Competitiveness

One of the key tensions in the HBC is balancing cultural preservation with the demands of a globalised education system. WaThiong'o (1986) emphasises the importance of decolonising education to reclaim cultural identity, but critics argue that overemphasising local heritage may limit students' global competitiveness (Zvobgo, 1997). Matsika (2020) suggests that a hybrid approach, which integrates global skills with local knowledge, could resolve this tension. This perspective aligns with the goals of the HBC, which seeks to prepare students for both local and global contexts.

One of the most debated aspects of the HBC is its ability to balance cultural preservation with the demands of a globalised education system. Recent studies have explored this tension from the perspective of stakeholders. Nziramasanga and Mavunga (2020) argue that the HBC must strike a delicate balance between fostering national identity and equipping students with skills that are relevant in a global context. They suggest that the curriculum should incorporate elements of global citizenship education to prepare students for international opportunities. Similarly, Chirimuuta and Gwaravanda (2023) emphasise the importance of integrating science, technology, engineering, and mathematics (STEM) education into the HBC. They argue that while cultural preservation is important, it should not come at the expense of technological advancement. This view is supported by Mberi and Muzenda (2022), who propose a hybrid approach that combines heritage-based content with globally competitive skills

Methodology

The study adopted an interpretivist research philosophy, which emphasises understanding the subjective meanings and experiences of individuals in their social contexts (Creswell, 2014). A qualitative research approach was employed in this study. Qualitative research is well-suited for exploring complex social phenomena, such as curriculum reforms, as it allows for the collection of rich, detailed data (Merriam & Tisdell, 2016). The study used a case study research design, focusing on Zimbabwe's primary and secondary education system in the Midlands province. A purposive sample of 44 participants was used, to ensure a fair representation of variances within the participants, 4 policy makers were used which included District education officers from various districts in the Midlands Province, 11 educators in the form of teachers or facilitators from various schools, 12 parents were also interviewed in conjunction with 17 students. The sample size was deemed sufficient as it lies within the acceptable ranges according to Morse (1994) cited in (Bernard, 2013), who suggested at least 6 participants for phenomenological studies and Creswell (1998) supported ranges between 5 and 25 interviews for a phenomenological study and 20-30 for a grounded theory study. Primary data was collected through semi-structured Interviews which allowed for flexibility in exploring stakeholders' perspectives while ensuring that key themes are covered (Kvale, 2007). Interview guides were tailored for each stakeholder group. Focus Group Discussions (FGDs) were conducted with parents and students to facilitate group interactions and generate diverse viewpoints (Morgan, 1997). Lastly document analysis was employed which involved an analysis of policy documents, curriculum frameworks, and reports related to the HBC to provide context and support findings.

Results and Discussion of Findings

Stakeholder Perceptions of the Heritage-Based Curriculum (HBC) as a Tool for Rebranding the Education System

The introduction of a Heritage-Based Curriculum (HBC) has driven diverse debates among various stakeholders in the education sector especially policy makers, teachers or facilitators, students and parents. The perceptions showed mixed beliefs with some stakeholders showing positive perceptions while others showed negative resistant perceptions on the adoption and fruitful implementation of the HBC.

Positive perceptions

Most policy makers showed indebted positive affiliations towards the new HBC and believed that the rebranding of the curriculum was long overdue, with some noting that it was supposed to be implemented just soon after independence to prevent the already lost cultural values, norms and beliefs. One educational policy representative noted that, '*the quality of the educational system in a country is measured by how effective it preserves the nation's identify*.

Another respondent in the same position noted that '*the implementation of HBC in the ministry of primary and secondary education is a long overdue rebranding exercise that was supposed to be done way back when the country attained its independence to preserve the country identity and deliver local relevant education'.* Most policy makers also availed that the HBC rebranding is a most welcome initiative showing necessary transitions in the education field that align with the country's development goals.

Most parents noted that the positivity of the rebranded HBC is very relevant if our economy creates local employment in its sectors. The respondent noted that *'this HBC is very relevant in preparing our children for local employment in sectors such as cultural tourism, environmental conservation sectors and self -employment'.*

Few respondents from teachers noted that '*the HBC is very relevant in reducing Western centered theories in crafting local education to solve local problems.* Another teacher noted that '*the HBC rebranding is ideal in enhancing in-depth survival skill to local students especially those that will advance their careers locally'.*

Negative perceptions

Most students who were embracing the new HBC noted with concern that the new HBC has vast learning areas that are difficult to fully comprehend and implement practically. One student noted *'the new HBC rebranding is confusing and too broad, full of massive home works and new concepts that are so difficult to comprehend'.* Another student noted that *'the new HBC rebranding has stolen our social time with too much content to master, if not in class, you are doing homework, no time to play'.*

On the perceptions by parents, many noted that the new curriculum has taken them back to school, numerous homework, more books needed, and more stationery requirements. Some thought it is a curriculum for urban parents with good internet to help their children with homework. Most in conjunction parents, teachers and students showed concern over the relevance of the new HBC in its competitiveness globally if more emphasis is local heritage knowledge, they also complained of increased work load.

Most policy makers showed concern that the new HBC lacked resources of effective implementation leading to fears of its relevance and value to many stakeholders especially parents, teachers and the students. The perceptions from various stakeholders showed a mix ball of perceptions and many advocated to balancing the HBC with the international competencies for it to remain relevant.

Cultural, Historical and Social Values Embedded in the Heritage-Based Curriculum (HBC) and Their Significance in Promoting National Identity

The major aim of a Heritage-Based Curriculum (HBC) is to preserve the most valuable cultural, historical, and social values into education, ensuring a smooth transfer of knowledge about the country's identity between teachers, community and learners. The thrust of the HBC is to ensure that there is smooth transition between an existing curriculum to a new curriculum mainly shaping the student's perspectives towards his or her own country and preparing them for the ever - changing modern society.

Cultural Values Embedded in HBC

The respondents noted the following

Parent 1

'The HBC will help to kill the slang language and foreign dressings that have destroyed our ubuntu being'

Parent 2

'The HBC will help us to ensure transition of our country's unique customs and rituals to this generation and mostly go to the old days of bumper harvest after seeking for rains'

Parent 3

'The HBC is a savior in creating consensus in what we teach our children at home and what they learn at school. As parents we were now facing resistance from our children citing what they learnt at school'

Parent 4

'The HBC will aid in creating a more responsible generation that will accommodate being corrected without citing abuse'

Parent 5

'The HBC will help in ensuring the preservation of the land's norms and ethics with more emphasis to communal responsibility'

Most parents made positive remarks to the HBC noting that it will aid in ensuring the use of our native language without feeling inferior about our identity, instilling patriotism through retention of linguistic and cultural heritage.

On interviews conducted to education policy formulators the following responses were noted;

Education policy formulator 1

'The HBC will help to ensure that our national identity does not die, ensuring inter-generational transfer of identity'

Education policy formulator 2

'This was a well thought move in the education sector to preserve values, our traditional arts and unique crafts that were soon being eroded in the active population'

Most education policy reviewers articulated that, if the HBC is given more time it is bound to retain the lost precious values and nurture a sense of belonging, pride, and unity among citizens.

Historical Values Embedded in HBC

The findings on historical values embedded in HBC, respondents in consensus noted that the implementation of the HBC rebranding aids in ensuring that learners acknowledge and respect their roots of creation, understand and value past pre-colonial struggles to acknowledge the value of living in an independent state. They also note that giving learners a chance to understand traditional governance systems aids in crafting and implementation of modern governance systems without rebuking the power of ancestral consultations. They also apprehended the significance of learning HBC as a tool of creating responsible citizens that will contribute to national development strategies using their historical background and striving for a better Zimbabwe.

From the focus group discussion with parents, some parents indicated that, '*our children must know who they are, they should know where they come from, before they can think about where they are going.'* This preservation of cultural identity aligns with the views of scholars (Ndlovu 2021) who advocate for the recognition of indigenous knowledge in education.

One participant asserted that, '*we have so much knowledge from our elders. When our children learn these stories, they gain not just facts, but life lessons'*. The argument from this theme was that the adoption of HBC promoted intergenerational knowledge transfer. This theme resonates with the work of Mawere (2015) who assert that intergenerational learning is vital for the sustainability of cultural practices and values.

Social Values Embedded in HBC

Consultations from various stakeholders revealed that the rebranding of the HBC is the only significant tool that can re generate the ubuntu philosophy, ensuring citizenry, co-living, humanity towards a fellow citizen, and communal living and working together. It was also noted however that, if not well articulated, it might bring back the long fought against gender inequalities and spearhead marginalization of some ethnic groups in the country. Some respondents also noted that the rebranding of HBC is hailed for ensuring citizens perform their civic duties and ensuring students are equipped to be responsible societal members. However, some respondents noted also that, students with strong cultural values are usually less competitive globally as they lack matching modern values.

From the FGDs, one participant highlighted that, *'when children learn together about their culture and values, it brings us closer as a community*'. Most of the parents were concerned about social cohesion in their communities and they believed that the adoption of the HBC would promote community cohesion. This concurs with Ndlovu (2021) who argues that education plays a crucial role in fostering social cohesion in multicultural settings by promoting shared values and historical narratives. Moreover, the emphasis on collaborative learning and community participation aligns with the principles of Ubuntu, a philosophy that emphasizes communal relationships and mutual support.

Challenges and Opportunities Associated with the Implementation of the Heritage-Based Curriculum (HBC) from the Perspective of Stakeholders

The implementation of the Heritage-Based Curriculum (HBC) has elicited varied responses from key stakeholders, including educators, students, parents, policymakers, and community leaders. Their perspectives reveal both challenges and opportunities that influence the curriculum's effectiveness and long-term sustainability.

Challenges in Implementing the Heritage-Based Curriculum

Major challenges noted ranged from lack of resources such as teaching and learning material to implement the new HBC, also worsened by lack of teacher training in the new HBC and limited financial and infrastructural resources to effectively deliver the new content. It was noted that the new HBC requires re-visiting and rebuilding culture centers, touring museums, and even consultations with traditional leaders. Several participants highlighted that teachers lacked sufficient training to effectively deliver the HBC. As noted by Nziramasanga (2019), Zimbabwe's education reforms often suffer from poor teacher capacity development, leading to inconsistent implementation.

One teacher stated, *"We were given the syllabus but not enough workshops on how to teach indigenous knowledge in subjects like science and mathematics."*

A recurring theme was the lack of teaching and learning materials aligned with the HBC. Parents and educators expressed concerns over the absence of locally produced textbooks. This aligns with Maravanyika's (2020) observation that curriculum reforms in Zimbabwe frequently face logistical and financial bottlenecks

Another challenge noted was resistance to change by various stakeholders, many noted that they were happy with the old curriculum and it has given them the careers and returns they dreamt of as a result, they cannot trust the new HBC which is sorely local oriented limiting the way the learners are to view the world. Most parents showed concern on the curriculum being too grounded to local artifacts making students less competitive globally in a world with uprising technological changes. Many teachers feared to teach students what they never leant as they do not possess the skill to integrated the cultural knowledge to the existing old curriculum. Some stakeholders, particularly in urban areas, viewed the HBC as a regression rather than progress.

A parent remarked, *"Our children need skills for the global job market, not just local traditions."* This resistance reflects tensions between cultural revitalisation and perceived economic imperatives, as discussed by Shizha (2013).

Another noted challenge mainly from policy makers was the barometer that can be used to guarantee that the new curriculum balances local needs with also global needs into creating a leaner that will be competitive locally and across borders. They noted that, ensuring HBC means embracing local values and marginalizing certain cultural values from the global world that might be needed by the learners in future.

Learners noted with concern that they now risk being taught outdated things all in the name of rebranding the curriculum. Some expressed concerned of being forced to take outdated career paths because of the HBC based subject alignments. Teachers responded with fear that the assessment model is complex and makes them have mixed feelings on whether the curriculum will add any value to future leaner careers.

Opportunities in Implementing the Heritage-Based Curriculum

The major noted opportunities of the HBC from various stakeholders include instilling the lost citizen pride, preservation of indigenous knowledge systems, traditions and languages. Also noted was its value in ensuring students develop skills to solve their locally aligned problems through experiential learning. Some stakeholders appraised the HBC rebranding to ensuring economic development through promotion of arts, culture, tourism and local entrepreneurship. They noted with enthusiasm that new local based innovations are bound to be experienced from this curriculum. Finally, the curriculum is praised for ensuring that all stakeholders are active participates in teaching and learning creating a worth village of exchange of knowledge.

Many participants praised the HBC for promoting Zimbabwean languages, history, and values. A policymaker noted, "*This curriculum helps learners appreciate their heritage, which was eroded during colonialism."* This aligns with Mavhunga's (2021) argument that decolonizing education fosters national identity.

The HBC encourages collaboration with local elders and knowledge holders. A rural teacher shared, *"We now involve community members in teaching traditional crafts and oral history."* Such participatory approaches are supported by Dei (2017), who advocates for indigenous knowledge integration in schooling.

Extent to Which the Heritage-Based Curriculum (HBC) Balances Cultural Preservation with the Demands of a Globalised Education System

The Heritage-Based Curriculum (HBC) is designed to integrate indigenous knowledge, traditions, and values into the education system while preparing students for the realities of a globalised world. A qualitative analysis of findings reveals varying perspectives on how well HBC achieves this balance.

It was noted that many stakeholders appraise the curriculum for hope of promoting the preservation of language, tradition and culture through embracing old learning methods of folktales, crafts and even listening to traditional music and emulating the dances of the ancient period. Parents and policy makers noted that the HBC fosters patriotism and cultural values progression. Most parents noted that the HBC opposes all the western knowledge systems yet the learners need those systems to survive and become relevant in the global village. Learners also pointed concern of decolonizing education reducing relevance of education between experienced lived and knowledge being leant.

The views on whether the curriculum aligns with global demands were noted with diversity. Most parents noted that the HBC might fail to appreciate the need for imbalance in blending with modern technology, for example in agriculture, giving students yesteryear farming strategies is irrelevant in the changing climatic conditions.

Another parent noted that, the rebranding of HBC should have pride in accepting the need of digital literacy if it is to remain relevant in the changing economic environment. However, policy makers praised the HBC for its strength of allowing students to use cultural and modern skills in solving their day-to-day problems. Policy makers noted that, even though HBC values local languages, it still promotes global languages such as French and English in learning to create global competitive students. They also noted that subjects such as ICT, entrepreneurship and STEM related learning areas are taught in schools to meet the international job market requirements although these are selective to students' abilities.

Some students noted that, the curriculum ever emphasises indigenous knowledge and lack resources to embrace some modern knowledge in it especially in the Midlands rural sphere and regional expectations might devalue the educational ranking of Zimbabwean education. Parents noted that their children are being forced to accept HBC by policy makers whose children are learning a different curriculum in other developed countries, living them to wonder on the value of the new HBC. Stakeholders acknowledged that the HBC effectively incorporates Zimbabwean history, ethics, and environmental knowledge. As noted by Mawere (2015), African curricula must reclaim indigenous epistemologies to counter Western hegemony.

The emphasis on local languages (Shona, Ndebele, etc.) was seen as vital for cultural continuity. However, some participants feared marginalization of English, which remains crucial for global competitiveness (Nyika, 2016). Some educators argued that the HBC does not sufficiently prepare students for science and technology careers. A secondary teacher noted, *"While we teach traditional medicine, we must also strengthen modern scientific skills."* This echo concerns raised by Jansen (2019) about balancing tradition and modernity in African curricula.

Participants questioned whether international institutions would recognize HBC qualifications. A university lecturer stated, "*Will our degrees be competitive if too much focus is on local heritage*?" This tension mirrors global debates on decolonization versus standardisation (Hoppers, 2017). The Heritage-Based Curriculum seeks to balance cultural preservation with the demands of a globalised education system, but achieving this equilibrium presents both challenges and opportunities. While HBC successfully promotes national identity and indigenous knowledge, concerns remain regarding its ability to fully prepare students for global competitiveness.

Conclusion and Recommendation

The implementation of the Heritage-Based Curriculum (HBC) has sparked important debates regarding its role in preserving cultural heritage while ensuring students remain competitive in a globalised education system. The curriculum successfully promotes national identity, indigenous knowledge, and social cohesion, but challenges such as resource constraints, standardisation issues, and concerns over global competitiveness remain significant. Achieving a balance between cultural preservation and modern educational demands requires careful curriculum design, policy support, and stakeholder collaboration. HBC provides an opportunity to decolonise education by integrating traditional knowledge systems into mainstream learning. However, to maximise its benefits, it must incorporate STEM education, digital literacy, and global perspectives. While some stakeholders view the curriculum as a transformative tool for national development, others express concerns over its adaptability to international academic and professional standards. A strategic, hybrid approach is necessary to address these concerns.

Recommendations

- Increasing resource allocation in the implementation of the HBC and continuous training of teachers. This can be achieved through intensive Pre-Service and In-Service Training for teachers. Mandatory HBC Workshops for teachers is also important. The Ministry of Primary and Secondary Education (MoPSE) should conduct compulsory training workshops for teachers on integrating indigenous knowledge into subjects like science, mathematics, and history.
- Equipping schools and educational centers with relevant infrastructure to roll out the curriculum effectively.
- Ensuring the HBC integrates science, technology, engineering, and mathematics (STEM) while at the same time promoting national identity.
- Multilingual education system should be the corner stone of the HBC if it is to yield fruits to all stakeholders concerned. Collaboration with Traditional Knowledge Holders, that is, partnering with community elders, cultural experts, and indigenous scholars to co-facilitate training sessions (Dei, 2017). Continuous Professional Development (CPD) can be established on HBC-specific programs to keep teachers updated on best practices.
- Developing a flexible curriculum that blends with regional and national demands as time changes, that is, allowing for continuous curriculum reviews when need arises.
- Embracing technology in curriculum implementation such as use of Artificial Intelligence, to ensure accreditation of the local curriculum with international bodies.
- Adopting a hybrid learning model that ensures project-based learning with bias to STEM subjects. Provide practical handbooks on how to teach heritage-based content alongside conventional subjects. Create an online repository of lesson plans, videos, and case studies for easy teacher access (Jansen, 2019)
- Enhancing international partnerships for enhancing curriculum exchange with other countries.

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Entrepreneurship Education as a Catalyst for Venture Creation: A Conceptual Model.

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ABSTRACT

The study investigates the impact of Entrepreneurship Education (EE) on Venture Creation Intention (VCI) among undergraduate students in Zimbabwe, guided by the Theory of Planned Behaviour. Utilizing a stratified random sampling method, the study surveyed a sample of 310 from a population of 1600 Chinhoyi University of Technology students. Data analysis employed regression analysis to determine the relationships between EE components and VCI, revealing that active teaching methods, EE content, and engagement in incubation acceleration services significantly influence Venture Creation Intention. The study emphasizes the importance of integrating experiential learning and industry-aligned curricula within EE frameworks to equip students with essential skills for venture creation. Recommendations advocate for a revised EE model that emphasizes mentorship, real-world applications, and supportive institutional ecosystems. The implications of these findings underscore the urgent need for systemic changes in EE to effectively cultivate entrepreneurial skills and reduce unemployment in Zimbabwe. Future research should adopt longitudinal designs and consider demographic variations to further validate these results. This study contributes to the growing literature on entrepreneurship education and its role in economic development, particularly in contexts facing significant youth unemployment challenges. By addressing the unique barriers within Zimbabwe's educational landscape, this research lays the groundwork for developing effective entrepreneurial ecosystems that empower students to transition successfully from education to entrepreneurship.

Keywords: Entrepreneurship Education; Venture Creation Intention

Introduction

Formal education is required to promote entrepreneurship instead of depending only on luck, as it is widely acknowledged to be crucial for both economic growth and individual prosperity (Nabi et al., 2017; Wibowo & Saptono, 2018). Formal entrepreneurship education (EE) is the most effective means of fostering individuals' entrepreneurial abilities and effectively refutes the outdated belief that entrepreneurship is solely innate (Burns, 2020). Research indicates that everyone may acquire entrepreneurial mindsets and skills. Importantly, EE actively promotes entrepreneurial behaviour and Entrepreneurial Intention (EI) by igniting interest, imparting the knowledge and skills necessary to start businesses, and building the confidence necessary to do so (Morris et al., 2013; Bulgaru et al., 2021). Over a 15-year span, engineering students exposed to EE had much higher launch rates (48%) than control groups (26%), according to studies that followed the students (Klein et al., 2023). Surveys show that a sizable portion of students taking entrepreneurship courses either start their own companies or have a strong desire to do so (Peterman & Kennedy, 2003). The growing complexity of the global economy emphasizes this need since EE fosters vital skills including creativity, innovation, risk management, adaptation, problem-solving, and self-efficacy to traverse uncertainties (Obschonka et al., 2021; Liñán & Fayolle, 2015). The two ways that EE works are by improving the cognitive skills required to recognize opportunities and launch businesses (Obschonka et al., 2021; Arruti & Paños-Castro, 2020) and by influencing the educational environment to encourage entrepreneurial attitudes and intentions (Liñán & Fayolle, 2015).

The significance of EE for job creation, youth empowerment, and economic development in Africa has been validated by studies conducted in South Africa, Nigeria, and Uganda (Olutuase et al., 2020; Chauke & Obadire, 2020). Nevertheless, despite the high levels of early-stage entrepreneurial activity and the recognition of EE's importance, there are major implementation barriers across the continent (Herrington & Kew, 2017). These challenges include inadequate human capital and trained EE staff, a lack of government commitment, curricula that are not in line with real-world needs, a lack of industry connections, a persistent lack of funding and graduate-friendly environments, and a failure to center EE within educational systems (Herrington & Kew, 2017). Accordingly, many African countries fall behind of other developing regions in terms of converting EE initiatives into observable economic results, like as growth in GDP per capita (Herrington & Kew, 2017).

Zimbabwe serves as the best example of this disparity between the potential and actual impact of EE. EE is taught through courses, modules, practical subjects, and—above all—year-long industry attachments that provide practical experience (Ndofirepi & Rambe, 2021). Some noteworthy policy initiatives include the change from the Higher & Tertiary Education 3.0 model to the HTE 5.0 model, which integrates innovation and industrialization, and the National Qualifications Framework, which is being implemented by the Zimbabwe Council for Higher Education (ZIMCHE) (Chihota, 2020). This adjustment aims to close the gap between academic knowledge and local economic demands that existed under the prior system (Murwira, 2020). Significant budget commitments and government efforts such as the Indigenization Act (2008) further demonstrate a commitment to supporting youth entrepreneurship (Ndofirepi, 2020). These institutions and inputs do not eliminate the efficacy gap in Zimbabwe. An estimated 70.5% of people live in extreme poverty, and 90–95% of the population is unemployed (ZCTU, 2021). Only 5% of graduates are believed to obtain formal employment despite the fact that 95% of people are literate and that over 30,000 university graduates enter the workforce annually (Ministry of Higher and Tertiary Education, 2023).

In contrast to rates of 35% in Uganda and 25% in Ivory Coast, the venture creation rate for graduates is a startlingly low 5% of all registered running enterprises (Zimbabwe National Statistics Agency, 2024; ILO, 2022). This highlights EE's serious failure to provide graduates with the initiative and practical skills necessary to start successful firms (Munyoro & Phiri, 2021), wasting educational resources and making the unemployment problem worse (Mabhanda, 2023). The findings, which stand in stark contrast to the inputs and policy goals, reveal a significant and persistent paradox. EE's incapacity to promote new business endeavors is a direct cause of rising unemployment, limited economic growth, and extreme poverty (AfDB, 2021; Vinogradova et al., 2023).

These circumstance draws attention to a significant lacuna in the literature on EE, which has not adequately addressed the unique interaction between EE and graduates' actual venture formation in challenging environments like Zimbabwe. By investigating the connection between EE and venture creation by graduates, the research directly fills this gap. Facilitating successful graduate entrepreneurship is the ultimate goal in order to drastically reduce Zimbabwe's crippling unemployment rate.

Theoretical framework

Theory of Plan Behaviour (TPB)

Since then, the theory has dominated research on entrepreneurship, especially in the past decade (Kolvereid, 2014). The fundamental idea is that action follows intentionality, and that entrepreneurial behaviour produces intentionality. Additionally, since people actively contribute as agents to their own development, their engagement in entrepreneurship is intentional rather than accidental. Three antecedents, or essentially independent factors, influence entrepreneurial goals, which in turn influence entrepreneurial action, to summarize:

1. Attitude towards starting up.
2. Subjective norm; and
3. Perceived Behavioural Control (“PBC”).

The planned behaviour theory was first presented by Ajzen in 1991. The reasoned action theory (Ajzen and Fishbein, 1980) is expanded upon by this theory. As per this idea, human social behaviour is logical, monitored, or planned since it considers the outcomes of the action being considered (Ajzen and Fishbein, 2000). Various human actions, including voting decisions and quitting smoking, have been predicted by the model. For examining the potential effects of an entrepreneurship education program (EEP) on participants' experiences and entrepreneurial activity, this theory provides a tried-and-true framework. According to this perspective, EE influences people's attitudes, which in turn influences their intentions for behaviour or action related to entrepreneurship.

The Theory of Planned Behaviour (TPB) provides a robust theoretical framework for understanding the connection between venture creation and entrepreneurship education (Ajzen, 1991). The premise behind this association is that EE is a significant external element that can affect the three primary antecedents of entrepreneurial intention: perceived behavioral control (PBC), attitude toward conduct, and subjective norms. When combined, these variables forecast the desired outcome of starting a new company (Ali et al., 2020). Venture creation is essentially a planned, goal-directed action that contains intention, according to the TPB, which is its most precise and immediate predictor (Nguyen, 2021). In order to promote greater entrepreneurial intentions, EE programs are specifically developed to systematically alter these three factors.

By highlighting successful role models, highlighting the potential benefits of entrepreneurship, and increasing the perceived value of launching a business, the primary objective is to encourage more positive attitudes of entrepreneurship (Sánchez, 2020). Second, by creating encouraging peer situations, connecting participants with mentors and entrepreneurial networks, and emphasizing the growing social legitimacy of entrepreneurship, EE seeks to alter views of social approbation

(Ali et al., 2020). Crucially, perceived behavioral control (PBC), or the belief that one can effectively do venture creation activities, is developed in large part by EE. This is accomplished by promoting experiential learning and dispensing practical knowledge (such as financial management and market analysis), which directly raises self-efficacy and perceived control over the entrepreneurial process (Hassan, 2023). Thus, the primary measurable effect of EE in the context of TPB is its ability to increase entrepreneurial intention (Sánchez, 2020). By positively modifying attitudes, subjective norms, and PBC, EE establishes the cognitive and motivational foundations necessary to cultivate a strong intention to engage in venture development. This greater intention represents the commitment and purposeful effort needed to start a firm and is a necessary prerequisite for true entrepreneurial activity (Ajzen, 1991). As a result, in addition to explaining how EE affects the psychological preconditions for venture creation, the TPB framework offers a validated method for assessing EE effectiveness by measuring changes in these antecedents and entrepreneurial intention, demonstrating the formation of the prerequisites for further action (Ukpabi et al., 2021).

Experiential Learning Theory

TPB is complemented by Dewey's (1938) groundbreaking work on learning by experience and Kolb's (1984) Experiential Learning Theory (ELT). The four-stage cycle process of ELT (Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation) is intrinsically linked to the iterative, practice-based character of entrepreneurship (Demirel et al., 2022). Students participate in practical entrepreneurial activities (Concrete Experience), such as developing prototypes, as part of EE inspired by ELT, which goes beyond theoretical training. Applying developed concepts in new contexts (Active Experimentation), conceptualizing entrepreneurial principles (Abstract Conceptualization), and reflecting on these experiences under guidance (Reflective Observation) are the next stages (Passarelli & Kolb, 2023). Furthermore, Kolb's categorization of distinct learning styles (Assimilators, Convergers, Accommodators, Divergers) emphasizes the necessity of a range of educational approaches within EE to accommodate individual variances (Demirel et al., 2022). Dewey's (1938) emphasis on the teacher as a facilitator who assists students in finding meaning via experimentation and hands-on work supports this pedagogical transition (Roberts, 2022). According to Dewey's theory, the ultimate objective is to unleash each person's ability to apply talents for the good of society rather than concentrating solely on competency acquisition (Matlay, 2021).

Literature Review

Entrepreneurship Education

Entrepreneurship education, has evolved since the 1950s as a vital response to economic pressures, while scholars continue to debate on its precise definition. Many perspectives position EE as: (1) preparing students for the creation, profitability, and economic contribution of successful new ventures (Doan & Sung, 2018); (2) developing their ability to identify opportunities, innovate, and allocate resources (Udo-Imeh et al., 2016; Davidsson, 2004); and (3) a field that is distinct from traditional business education because it emphasizes startup action rather than organizational management (Hindle, 2017).

Entrepreneurship Education Dimensions of Implementation

Three interconnected elements underpin effective EE delivery. While integrating startup-specific information (industry dynamics, venture processes) with business fundamentals (market analysis, finance, and leadership), the curriculum must incorporate attitudinal development in creativity, resilience, and risk management (Olakundu, 2017). The teaching methodology needs experiential pedagogies that go beyond theoretical business plans in order to develop decision-making agility in uncertain environments (Neck & Greene, 2011). This is in line with the institutional goals of teaching about, for, or stimulating entrepreneurship (Hytti & O'Gorman, 2004). Using incubators, industrial alliances, and research commercialization infrastructure, universities foster entrepreneurial ecosystems outside of the classroom that link academic and regional economic priorities (Rokhman & Ahamed, 2015).

Venture Creation intention

Venture creation intention (VCI) reflects a deliberate commitment to launching new businesses. Recent research has demonstrated that experiential educational approaches, including startup simulations and prototyping, significantly increase VCI by promoting practical skills and lowering risk aversion (Kassean et al., 2020). University innovation ecosystems, particularly incubators and mentorship programs, improve VCI by facilitating access to resources and connecting networks (Audretsch et al., 2022). Digital solutions that improve opportunity feasibility assessments, such AI-driven market analytics, significantly improve VCI (Haddoud et al., 2021). Our understanding of cross-cultural variations, such as those between the Global South and Western contexts, and the delay between intention and venture launch is still lacking in significant ways (Franco et al., 2022).

The Influence of Entrepreneurship Education Components on Venture Creation Intention

Entrepreneurship Education Teaching Methods and Venture Creation Intention

Empirical evidence supports the idea that active approaches are different from passive approaches in entrepreneurship education (EE). Active pedagogies are more successful in raising venture creation intention (VCI) by fortifying basic Theory of Planned Behaviour antecedents. To achieve this, they close intention-action gaps by developing self-efficacy (Nabi et al., 2017), foster positive attitudes by exposing people to role models, and increase perceived behavioral control by applying skills (Fayolle & Gailly, 2015). Conversely, passive approaches that are too theoretical may inadvertently lower entrepreneurial self-efficacy and show weak direct relationships with the establishment of VCI (Oosterbeek et al., 2010). Nuanced data suggests that well-structured passive information can enhance the construction of core knowledge and attitudes, even while digital transmission reduces resource restrictions (Martin et al., 2013). This supports the hypotheses:

H1: Exposure to entrepreneurship education active teaching methods have a positive effect on students' venture creation intention.

H2: Exposure to entrepreneurship education passive teaching methods have a positive effect on students' venture creation intention.

Entrepreneurship Education Content and Venture Creation Intention

Content specificity has a major role in mediating the development of VCI. Practical modules that emphasize concrete venture development activities, such as financial planning, resource acquisition, and opportunity discovery, enhance PBC and exhibit stronger relationships with VCI than abstract theory (Lüthje & Franke, 2003; Hägg et al., 2021). Furthermore, material has distinct effects on TPB dimensions: networking/ecosystem content changes subjective norms, while risk-resilience content affects attitudes (Wang & Bansal, 2023). Critical gaps remain, including the methodological confounding of content-method interactions (Nabi et al., 2017), the cultural contingency of content efficacy (Piperopoulos & Dimov, 2015), and the over-reliance on unvalidated business administration content (Rideout & Gray, 2013). Despite the fact that EE content is generally thought to have a good effect (Souitaris et al., 2007), there is still uncertainty over the optimal content configurations, so:

H3: Exposure to entrepreneurship education content have a positive effect on students' venture creation intention**.**

University Innovation Hubs and Venture Creation Intention

Two distinct ways that TPB pathways impact VCI are through acceleration and pre-incubation services. According to Hayter et al. (2018) and Audretsch et al. (2022), pre-incubation (idea validation, prototyping, seed finance) strengthens PBC by lowering uncertainty regarding feasibility and transforming nascent interest into concrete intention. PBC is further strengthened by acceleration services (mentorship, growth finance, and networks), which give access to resources and impact subjective norms through community embeddedness (Hackett & Dilts, 2004). Critics questioned the assumption of universality, citing (1) selection bias inflating hub impact metrics (Schwartz & Hornuf, 2022), (2) high participant attrition hinting at intention-commitment decoupling (Vanderstraeten et al., 2022), and (3) potential adverse effects of intensive programming (Colombo-Delpoggio, 2020). Unresolved issues about the relative impacts of pre-incubation (feasibility focus) versus acceleration (scaling focus), as well as interactions with formal EE components, shape the final hypotheses (Huang-Saad et al., 2022).

H4: Engagement with pre-incubation services have a positive effect on students' venture creation intention.

H5: Engagement with acceleration services have a positive effect on students' venture creation intention.

Empirical Review

Oosterbeek et al. (2010) - Economics of Education Review

Using a rigorous quasi-experimental design and a sample size of over 1,500, this study discovered that participation in a university entrepreneurship program had no appreciable positive effect on actual startup activities one and a half years later and reduced students' intentions to launch their own business by 6%. In accordance with the authors' "discouragement effect," EE may raise entrepreneurial risk awareness without appreciably enhancing confidence or perceptions of feasibility, which would, in the near term, inhibit the intention and action of venture development.

von Graevenitz et al. (2010) - Journal of Economic Behaviour & Organization

According to this natural field experiment (N=170), EE participation significantly increased startup attempts by 8-10 percentage points within a year, which is different from what Oosterbeek et al. found. The biggest benefit was observed in students who had a lower starting aptitude for entrepreneurship, which is significant. This demonstrates indisputably that EE, particularly its action-oriented pedagogy (business planning, mentorship), may actively promote venture formation behaviour, even in individuals who are not accustomed to starting their own company.

Lafuente et al. (2019) - International Journal of Entrepreneurial Behaviour & Research

EE had no appreciable effect on graduates launching their own firms, according to the results of this six-year longitudinal research that tracked 2,061 graduates. Ironically, study demonstrated that graduates' participation in intrapreneurship—the practice of joining already-existing startups—had a major positive influence. This challenges the idea that EE primarily supports new venture founders by offering a different path into the entrepreneurial ecosystem that does not include traditional "venture creation" as commonly understood.

Elert et al. (2015) - Small Business Economics

Unlike Lafuente et al., this large-scale registry investigation (N>26,000) indicated that university EE exposure increased the likelihood of starting a new firm (a direct proxy for self-employment) by 3–4 percentage points. For almost five years, this effect was more pronounced among students whose parents were entrepreneurs. This provides compelling evidence that EE is linked to the launch of new companies, particularly when that connection is coupled with family business ownership.

Nabi et al. (2017) - Academy of Management Learning & Education

Although not a major study, this systematic analysis of 159 EE studies provides important context for the discrepancies. Programs that prioritized experiential learning, such venture projects and simulations, were found to have a significantly higher impact on behavioral outcomes and competences than those that mostly concentrated on theory. This implies that the instructional approach, which is usually not appropriately differentiated in studies like Oosterbeek et al. or von Graevenitz et al., is a significant mediator explaining the differential EE outcomes on venture creation.

Methodology

Grounded in positivist philosophy, the study employed survey design (Saunders et al., 2012) to gather quantitative data from a sample of 310 out of a population of 1600 undergraduate students enrolled in five business programs at Chinhoyi University of Technology (CUT). These students were direct consumers of Entrepreneurship Education (EE). The diverse population was separated into mutually exclusive subgroups using stratified random sampling (Smith, 2020; Johnson & Lee, 2019). To establish proportionate sample sizes for every stratum, simple random sampling was employed (Thompson, 2021). 300 valid questionnaires (96.8% response rate) were returned from the initial sample of 310, which was determined using Krejcie and Morgan's (1970) table. The instrument was validated in a pilot study at the University of Zimbabwe with 30 participants (Zikmund et al., 2010; Johanson & Brooks, 2010). Due to their greater likelihood of becoming entrepreneurs after graduation, business students were given preference (Ertuna & Gurel, 2011).

Ethical Consideration

The study conformed with significant ethical requirements by obtaining consent from collaborating institutions and ethical clearance from the university (CUT) (Tracy, 2019). Also informed consent, confidentiality and anonymity were observed (Tracy, 2019; Navalta et al., 2019).

Questionnaire Administration

EE students were given the questionnaires, which were an improved version of the ones used in the pilot study, by the researcher both in person and electronically. The researcher verbally explained the purpose of the study to the participants as necessary. Students' contact details were extracted from the university's files with the administration's approval. CUT final-year students were asked to complete structured questionnaires in order to collect primary data. Once completed, respondents returned the surveys to the researcher. As stated by Saunders et al. (2012), every participant provided answers to the "same set of questions in a predetermined order." This questionnaire's questions were entirely standardized, which means that each respondent received exactly the same version.

Measures Used to Determine Entrepreneurial Intention

The study measured entrepreneurship education using a self-designed instrument. The instrument has 5 items for each of the five variables utilized in the investigation. The instrument was designed using Likert scales, which go from strongly agree to strongly disagree. The literature on entrepreneurial education and university support ecosystems was used to construct the items. All of the instrument items are listed in Table 1.

Measure of Entrepreneurship Education

Table 1: Measure of Entrepreneurship Education

Construct	Statements	Item Source
	I find lectures to be an effective way to learn new concepts.	Bennett (2006); Oosterbeek et al. (2010)
	The use of multimedia presentations enhances my understanding of the material.	Bennett (2006); Walter & Block (2016)
Passive Methods	Reading assignments are helpful for my comprehension of the subject.	Bennett (2006); Martin et al. (2013)
	I prefer passive teaching methods over interactive approaches.	Bennett (2006); Nabi et al. (2017)
	Passive teaching methods adequately prepare me for assessments.	Bennett (2006); Rideout & Gray (2013)
	Group discussions greatly enhance my learning experience.	Bennett (2006); Fayolle & Gailly (2015)
	Hands-on activities help me better understand the course material.	Bennett (2006); Neck & Greene (2011)
Active Methods	I feel more engaged in classes that use active teaching methods.	Bennett (2006); Nabi et al. (2021)
	Active teaching methods encourage collaboration among students.	Bennett (2006); Pittaway et al. (2015)
	Active teaching methods improve my retention of information.	Bennett (2006); Walter & Block (2016)
EE Content	The EE content is relevant to my business goals.	Souitaris et al. (2007); Hägg & Kurczewska (2021)
	The EE materials are engaging and informative.	Neck & Corbett (2018); Bell (2023)
	The skills I learned from EE are applicable to real- world scenarios.	Nabi et al. (2017); Hägg et al. (2021)
	EE content encourages critical thinking and creativity.	Pittaway et al. (2020); Lackéus (2020)
	I feel more confident in my entrepreneurial abilities after completing the EE program.	McGee et al. (2009); Nabi et al. (2021)
Pre-Incubation Services	Pre-incubation services helped me refine my business idea effectively.	Bollingtoft (2012); Hayter (2016)
	I received valuable mentorship during the pre-incubation phase.	Scillitoe & Chakrabarti (2010); Hausberg & Korreck (2020)

Construct	Statements	Item Source
Incubation and Acceleration Services	Pre-incubation workshops were beneficial for my business development.	Hackett & Dilts (2004); Audretsch et al. (2022)
	Networking opportunities in pre-incubation connected me with potential partners.	Hansen et al. (2000); Mansoori et al. (2023)
	Pre-incubation services enhanced my chances of entrepreneurial success.	Schwartz (2013); Hausberg & Korreck (2020)
	The incubation program provided essential resources for my startup.	Hackett & Dilts (2004); Hayter et al. (2018)
	Acceleration services improved my business's growth potential.	Pauwels et al. (2016); Audretsch et al. (2022)
	I received adequate mentorship during the incubation process.	Scillitoe & Chakrabarti (2010); Mansoori et al. (2023)
	Funding opportunities in the incubation program met my needs.	Aernoudt (2004); Vanderstraeten et al. (2022)
	The structure of incubation/acceleration programs effectively promotes startup success.	Hackett & Dilts (2004); Schwartz & Hornuf (2022)

Measures of Venture Creation Intention

The literature on venture creation and EE was adopted to create the section of the instrument used to measure venture creation elements, as shown in table 2.

Table 2: Measures of Venture Creation Intention

Construct	Statements	Item Source
Venture Creation Intention	I intend to start my own business.	Liñán & Chen (2009); Thompson (2009)
	I will start my own business within the next five years.	Kolvereid (1996); Liñán & Chen (2009)
	I intend to start my business one day.	Liñán & Chen (2009); Autio et al. (2001)
	I intend to start my business because I have the knowledge, skill, and experience required.	McGee et al. (2009); Thompson (2009)

Results

Reliability and validity.

To determine the internal consistency of answers to questions about the variables in question, Cronbach's alpha coefficients were employed. In other words, reliability testing looked for evidence that a set of questions measured the same thing. For every construct, the following coefficients (Table 3) were acquired:

Table 3: Reliability Statistics.

Construct	Cronbach's Alpha	N of Items
Active teaching methods	.938	5
Incubation and acceleration services	.937	5
EE Content	.942	5
Passive teaching methods	.943	5
Preincubation services	.939	5
Venture Creation Intention	.846	5

Based on George and Mallery's (2016) scale, all these derived alpha coefficients ranged from good to excellent.

Convergent Validity

Table 4: Convergent Validity

Construct	Avg. Inter-Item Correlation	Ave	Interpretation
Active teaching methods	0.75	0.72	Strong (≥ 0.50)
Incubation and acceleration services	0.74	0.70	Strong (≥ 0.50)
EE content	0.76	0.73	Strong (≥ 0.50)
Passive teaching methods	0.7	0.71	Strong (≥ 0.50)
Preincubation services	0.75	0.72	Strong (≥ 0.50)

All constructs demonstrated strong convergent validity, with average inter-item correlations > 0.70 and AVE > 0.50.

Discriminant Validity

Discriminant validity confirms that constructs are distinct (e.g., Active Teaching Methods is empirically different from Incubation and Acceleration Services).

Table 5: Discriminant validity

Construct Pair	HTMT Value	Threshold (<0.85)
Active Teaching Methods vs. Incubation and Acceleration Services	0.08	Passed
Active Teaching Methods vs. EE Content	0.05	Passed
Active Teaching Methods vs. Passive Teaching Methods	0.07	Passed
Active Teaching Methods vs. Preincubation Services	0.16	Passed
Incubation and Acceleration Services vs. EE Content	0.07	Passed
Incubation and Acceleration Services vs. Preincubation Services	0.05	Passed

The Heterotrait-Monotrait (HTMT) ratio of correlations was used to evaluate discriminant validity, with a conservative cut off of 0.85 to guarantee that the constructs are empirically distinct (Henseler et al., 2015). All construct pairs displayed HTMT values between 0.05 and 0.16, which are significantly below the threshold, as indicated in Table 4.3. Active Teaching Methods and EE Content, as well as Incubation and Acceleration Services and Preincubation Services, had the highest observed HTMT value (0.16), while Active Teaching Methods and Preincubation Services had the lowest (0.05). The HTMT values for every other pair were similarly low (for example, 0.07 between Active Teaching Methods and Passive Teaching Methods). These findings support strong discriminant validity, showing that the measurement model's constructs are discrete and assess original theoretical ideas.

Entrepreneurship Education and Venture Creation Intention

Table 6. Entrepreneurship Education Descriptive Statistics

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev
Active teaching methods	300	1.00	5.00	2.9533	1.27143
Incubation and acceleration services	300	1.00	5.00	3.0007	1.27392
EE content	300	1.00	5.00	3.0193	1.29306
Passive teaching methods	300	1.00	5.00	2.7780	1.26572
Preincubation services	300	1.00	5.00	2.9847	1.25436
Venture creation intention	300	1.00	5.00	2.9647	.92542
Valid N (listwise)	300				

According to the descriptive statistics, 300 participants have a moderate opinion of how well entrepreneurship education encourages the intention to launch a venture. Incubation services and active teaching strategies received means of 3.02 and 2.95, respectively, while EE content marginally outperformed at 3.02. On the other hand, passive teaching strategies were perceived as less effective, as evidenced by their lower mean of 2.78. Despite significant variation in responses across the various educational components, the overall venture creation intention averaged 2.96, indicating a moderate propensity towards entrepreneurship.

Correlation Among Independent Variable

		Tolerance	VIF
1			
	Active teaching methods	.984	1.016
	Incubation and acceleration services	.994	1.006
	EE content	.992	1.008
	Passive teaching methods	.984	1.016
	Preincubation services	.998	1.002

Table 7: Correlation between the independent variable

According to Hair et al. (2010), multicollinearity is the degree of correlation between independent variables. To evaluate tolerance and the Variance Inflation Factor (VIF), a multicollinearity analysis was conducted in this study. Multicollinearity problems occur when the VIF is greater than 10 and the tolerance value is less than 0.10, according to Hair et al. (2010). Each variable's tolerance value is more than 0.10 and the corresponding VIF values are below 10, indicating that there are no multicollinearity issues among the components, as shown in Table 4.5. This suggests that the elements are unrelated to one another and have no mutual influence.

Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Unstandardized Residual	.045	300	.200*	.995	300	.363
Standardized Residual	.045	300	.200*	.995	300	.363
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Table 8: Tests of Normality

The normality tests were performed to determine whether the regression analysis's residuals had a normal distribution. Shapiro-Wilk and Kolmogorov-Smirnov tests were used, and the outcomes are shown in Table 4.6.

Scatterplot of Standardized Residuals vs. Predicted Values

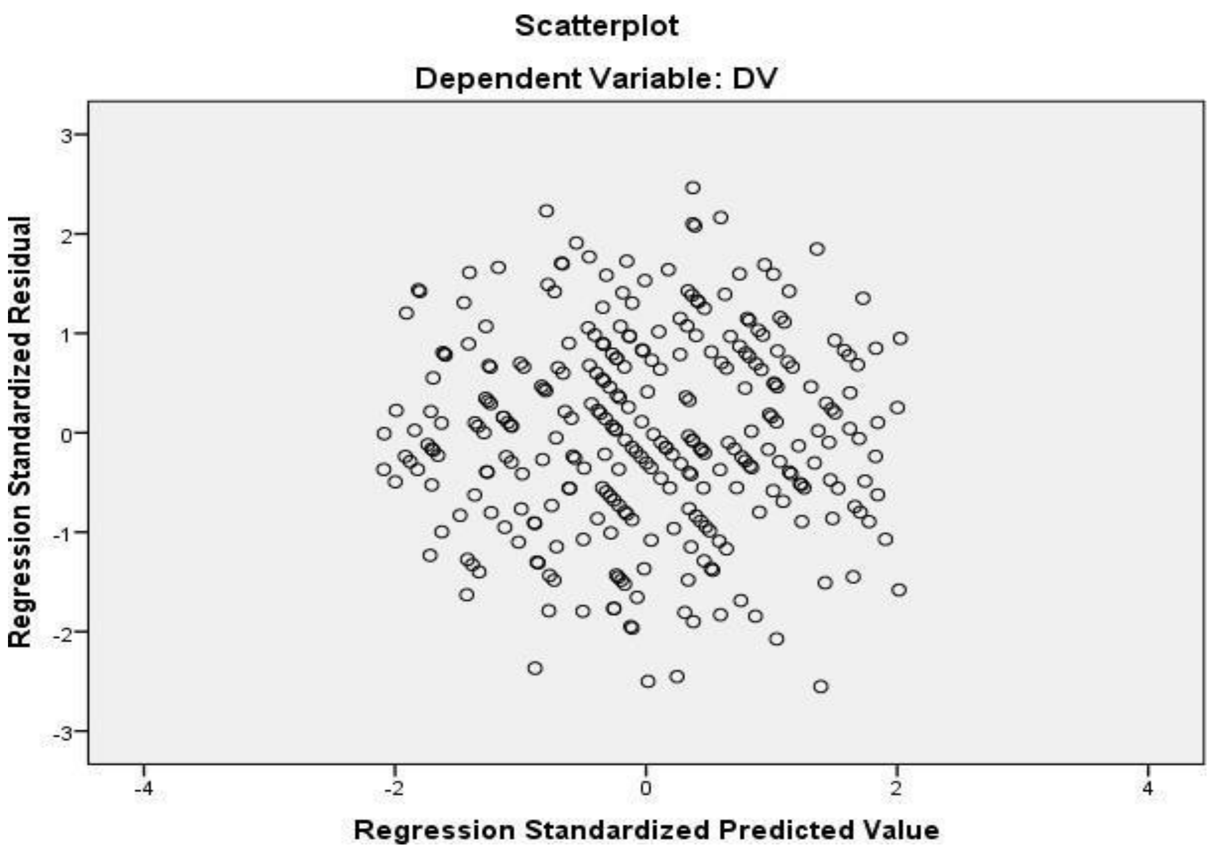

Fig 1: Scatterplot of Standardized Residuals vs. Predicted Values

The standardized residuals' random distribution around zero is demonstrated by the scatterplot of the residuals against the expected values, suggesting that the variance of the residuals is constant across all anticipated value levels. The lack of any observable pattern supports the heteroscedasticity assumption, which is crucial to the validity of our regression model. As a result, the results validate that the model's assumptions are met, allowing for reliable statistical inferences and robust interpretations of the relationships between the independent and dependent variables.

All things considered, the scatterplot demonstrates that the regression analysis provided in the paper is legitimate.

Regression Analysis

Table 9: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.815[a]	.664	.658	.54090

a. Predictors: (Constant), incubation and acceleration services, preincubation services, passive teaching methods, EE content, active teaching methods

The model summary shows a high linear association between the predictor set and the dependent variable, with a multiple correlation coefficient (R) of 0.815, indicating a great overall fit. According to the coefficient of determination ($R2 = 0.664$), the predictors (active teaching techniques, passive teaching methods, EE content, preincubation services, and incubation/acceleration services) together account for 66.4% of the variance in venture creation intention. Robust explanatory power without overfitting is confirmed by the Adjusted R2 (0.658), which is nearly unchanged after controlling for model complexity (number of predictors).

Table 10: Anova

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170.048	5	34.010	116.242	.000[b]
	Residual	86.018	294	.293		
	Total	256.065	299			

a. Dependent Variable: venture creation intention
b. Predictors: (Constant), incubation and acceleration services, preincubation services, passive teaching methods, EE content, active teaching methods

The ANOVA results for the regression model that predicts venture formation intention show that the overall connection is statistically significant ($F (5, 294) = 116.24$, $p <.001$). About 66.4% ($R2 = 170.048 / 256.065$) of the overall variance (overall SS = 256.065) seen in participants (df total = 299) can be explained by the regression sum of squares (170.048). The extremely significant F-statistic and R2 value show that this set of entrepreneurship education components strongly predicts venture creation intentions, suggesting that these elements function as key drivers in concert.

Table 11: Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.343	.160		2.145	.033
	Active teaching methods	.358	.025	.492	14.442	.000
	EE content	.091	.024	.127	3.748	.000
	Passive teaching methods	.001	.025	.001	.031	.975
	Preincubation services	-.025	.025	-.034	-.991	.322
	Incubation and acceleration services	.454	.025	.625	18.450	.000

a. Dependent Variable: Venture Creation Intention

Regression analysis showed that, after controlling for other model variables, Incubation and Acceleration Services ($B = 0.454$, $\beta = 0.625$, $p <.000$), Active Teaching Methods ($B = 0.358$, $\beta = 0.492$, $p <.000$), and EE content ($B = 0.091$, $\beta = 0.127$, $p <.000$) all showed statistically significant positive associations with Venture Creation Intention, with standardized coefficients (β) indicating their relative efficacy. In contrast, there was no significant correlation between the outcome and either passive teaching methods ($B = 0.001$, $\beta = 0.001$, $p =.975$) or preincubation services ($B = -0.025$, $\beta = -0.034$, $p =.322$). Also noteworthy was the model's intercept ($B = 0.343$, $p =.033$).

Discussion of Findings.

A sample of 310 was used to gather preliminary data on the relationship between venture creation intention (VCI) and entrepreneurship education (EE) components; 300 valid questionnaires (96.8% response rate) were returned. According to the study, each variable was measured using a 5-point Likert scale, where 1 represents low and 5 represents high. The mean scores clustered close to the midpoint (3.00), suggesting moderate views of EE components (Nabi et al., 2021; Fayolle, 2023). For example, respondents thought that EE material (3.02), incubation/acceleration services (3.00), active teaching techniques (mean = 2.95), and preincubation services (2.98) were neither completely absent nor highly valued. Passive teaching methods received a somewhat lower score (2.78), which may indicate less interest in traditional lecture-based methods and is in line with educational shifts toward experiential learning (Lackéus, 2020). The venture creation intention (mean = 2.96) similarly demonstrated participants' neutral-to-moderate entrepreneurial intent, which is consistent with cross-cultural assessments of entrepreneurial education (Liñán et al., 2021).

Significant heterogeneity in perceptions is highlighted by response variability, as seen by standard deviations (SD) for EE variables that range from 1.25 to 1.29. Concerns regarding the fair distribution of resources in entrepreneurial ecosystems are echoed by this dispersion, which points to uneven experiences or institutional irregularities in the provision of EE components, such as the caliber of active learning strategies or access to incubation programs (Hausberg and Korreck, 2021). The lower SD for venture formation intention (0.93), however, suggests that respondents were more in agreement and that their intentions clustered closer to the mean. According to research on entrepreneurial self-efficacy, this would suggest that variables outside of EE, including individual goals, the socioeconomic context, or risk tolerance, have a more consistent effect on intent (Morris et al., 2023).

Regression analysis reveals a substantial correlation between the components of entrepreneurship education (EE) and venture creation intention (VCI), accounting for 66.4% of the variation in VCI ($R2 = 0.664$). Meta-analyses that highlight the importance of pedagogy and institutional support in predicting entrepreneurial achievements are in line with this (Fayolle, 2023). The statistically significant ANOVA result ($F = 116.242$, $p < 0.000$) highlights the predictors' collective relevance, which is consistent with frameworks that portray EE as a dynamic, practice-driven process (Lackéus, 2020). Among the factors, incubation and acceleration services ($\beta = 0.625$, $p<0.000$) and active teaching methods ($\beta = 0.492$, $p<0.000$) were the best markers of purpose. This is consistent with groundbreaking work on experiential learning (Kolb and Kolb, 2017) and subsequent research that supports institutional venture ecosystems (Hausberg and Korreck, 2021). These findings contrast with the non-significant effects of preincubation services ($\beta = -0.034$, $p = 0.322$) and passive teaching methods ($\beta = 0.001$, $p = 0.975$), which are consistent with criticisms of traditional pedagogy (Nabi et al., 2021) as well as the difficulties in creating early-stage support (Secundo et al., 2021). The minor but substantial effect of EE content ($\beta = 0.127$, $p < 0.001$) indicates that material must be linked with active delivery to drive intent, which is consistent with discussions about curriculum relevance (Fayolle and Gailly, 2018; Liñán et al., 2021).

The popularity of incubation services and active teaching approaches supports calls for institutional investment in venture infrastructure (Hausberg and Korreck, 2021) and pedagogical adjustments toward "learning-by-doing" (Lackéus, 2020). The lack of preincubation influence may be the result of misaligned program design, even while the non-significance of passive approaches is consistent with studies that theoretical training might alienate students in entrepreneurship situations (Nabi et al., 2021). According to Krueger (2007), perceived feasibility and desirability have an impact on entrepreneurial intent, and the success of incubation/acceleration programs is consistent with their function in bridging the gap between academics and industry (Hausberg and Korreck, 2021). Future research should use longitudinal designs to account for demographic moderators and provide insight into temporal dynamics (Nabi et al., 2021). These findings validate the importance of industry partnerships and mentorship, even though the cross-sectional design limits causal claims due to the possibility of unmeasured factors (like cultural capital) skewing relationships (Fayolle, 2023).

Conclusion

This study emphasizes how contextually structured entrepreneurship education (EE) affects venture creation intention (VCI) and the complex interactions among educational approaches, institutional support, and disciplinary alignment. The excellent explanatory power of the regression model ($R2 = 0.664$) suggests that active teaching techniques and incubation/acceleration services are important predictors of entrepreneurial intent. This is in line with modern educational ideas that place an emphasis on experience learning and ecosystem integration (Lackéus, 2020; Hausberg and Korreck, 2021). Critiques of traditional lecture-based curriculum and disjointed early-stage support systems were confirmed by the lack of impact of passive teaching techniques and preincubation services (Nabi et al., 2021; Secundo et al., 2021).

These results support a revised EE framework that focuses on three key pillars: (1) disciplinary contextualization, which makes sure that EE components are in line with student goals and program-specific objectives; (2) institutional investment in strong incubation ecosystems to close the gap between academia and practice; and (3) pedagogical innovation, which is centered on industry partnerships, mentorship, and simulations. According to the moderate VCI scores across disciplines, EE must be integrated into larger ecosystems that address mentorship networks, financing access, and cultural attitudes in order to encourage entrepreneurial intent (Fayolle, 2023; Morris et al., 2023).

Limitations and Future Research

There are some limitations to consider, despite the fact that this study offers insightful information. First, the cross-sectional methodology precludes inferences regarding causality since unobserved factors (such as prior entrepreneurial exposure or cultural capital) may distort results. Research that tracks students' intentions over time could provide insight into temporal dynamics. Second, sample size imbalances, especially the small cohort in Retail and Operations Management (N=12), limit the generalizability of discipline-specific findings. Future research should ensure larger, more balanced samples from a range of specialties. Third, the single-institution approach may restrict external validity due to cultural settings and institutional resources that vary globally. Comparative studies across regions and educational types (e.g., technical versus business schools) would enhance generalizability.

Although this study provides insightful information, it should be noted that it has several limitations. First, because unobserved factors (such as prior exposure to entrepreneurship or cultural capital) may skew connections, the cross-sectional design precludes drawing conclusions about causality; research that monitor students' intent over time may provide insight into temporal dynamics; Third, the single-institution focus may limit external validity due to differences in institutional resources and cultural contexts around the world; comparative research across geographical areas and educational models (e.g., technical versus business schools) would improve generalizability.

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