

## Article

# A Framework for Risk Management in Small Medium Enterprises in Developing Countries

Zodwa Z. F. Mthiyane , Huibrecht M. van der Poll \*  and Makgopa F. Tshehla

Graduate School of Business Leadership, University of South Africa, Pretoria 0002, South Africa

\* Correspondence: vdpolhm@unisa.ac.za

**Abstract:** Failure to holistically manage risk in Small Medium Enterprises (SMEs) is one of the major causes of small businesses failure. To answer the research question as to what supports the adoption of Enterprise Risk Management (ERM) in SMEs, this research aims to analyse Risk Management (RM) in SMEs and develops a framework to facilitate the adoption of ERM. In achieving the primary objective, the research establishes for SMEs: the sources of information for RM; the importance of information governance in managing risk; the fundamentals of RM; and the pillars of RM. Previous research conducted on RM in SMEs reviewed the challenges of the successful implementation of ERM in SMEs and proposed different ways to address these challenges. The common ground reached by the research is that there is a need for the simplification of ERM in SMEs. We followed an interpretive philosophy with an inductive research approach and employed a qualitative methodological choice with a cross-sectional time horizon through data collection, employing a review of the scholarly literature, to, in the end, develop a conceptual Small Medium Enterprises Risk Management Framework (SMERMF). The limitation of the research is that the empirical part of the research has not been concluded yet. To present the results, that will be compared to the theory and conclude the research.

**Keywords:** enterprise risk management (ERM); risk management (RM); risk management framework (RMF); small medium enterprises (SME)



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## 1. Introduction

The challenge of risk management (RM) implementation in small medium enterprises (SMEs) in developing countries necessitates RM guidelines from different angles affecting enterprise risk management (ERM). As much as credit should be given to research that has been conducted to date to simplify RM in SMEs (Deni and Riswanto 2019; Havierniková and Okřeglicka 2019; Ibiwoye et al. 2020; Naude and Chiweshe 2017; Žigienė et al. 2019), extant research has not drawn attention to the governance effect and information aspect of a holistic RM approach in SMEs. The impact of information governance may not be isolated from ERM and might not have received attention from researchers, especially for SMEs.

Failure to manage risk in SMEs might be one of the reasons why SMEs in developing countries experience difficulties to grow and be sustainable. This may be attributed to the limited guidelines on pillars and fundamentals for ERM and the mapping of the aspects driving RM in SMEs. There remains an insufficient development of RM in SMEs despite efforts by policymakers to address the causes of failure such as access to finance, technology, and a regulatory framework for SMEs (Ndungo and Rucha 2017). Efficiencies in an enterprise are affected by effective internal controls through providing high-quality information that reduces incorrect behaviour (Cheng et al. 2018). According to Ki-Aries and Faily (2017), it is not possible for an enterprise to operate effectively and efficiently without information governance.

Since an assessment of information governance principles in ERM and its connection to the pillars and fundamentals of RM have been lacking in research for SMEs, it is important to unpack what constitutes the governance of information in SMEs that leads to ERM. [Fraser and Simkins \(2016\)](#) view the successful implementation of ERM as a pillar of good governance; however, [Ferreira de Araújo Lima et al. \(2020\)](#) argue that ERM is still not sufficiently developed for successful use in SMEs. Poor information governance and a lack of guidelines on aspects driving ERM might be a barrier to SMEs and ultimately compromise the sustainability of an enterprise. Given the complexity of information as a concept, the focus of our study is narrowed to accounting information. Information governance, in our context, therefore, reduces to accounting information governance.

Given the dearth of research on accounting information governance and the underlying principles, specifically for developing countries' SMEs, our research aims to analyse RM in SMEs and develop a framework embodying streamlined governance principles to utilise accounting information. The framework is further specialised to cater for SMEs in developing economies. In the process, business aspects that feed into information governance to address ERM will be formulated. The accounting information will be aggregated, communicated, and distributed to facilitate SME decision making.

The layout of the article is: Section 2 entails the literature review and is followed by the problem statement in Section 3. Section 4 presents the research methodology, and Section 5 provides the findings. The conclusion is presented in Section 6.

## 2. Literature Review

Researchers have scrutinised how ERM can be successfully implemented in SMEs from different perspectives ([Deni and Riswanto 2019](#); [Havierníková and Okreglicka 2019](#); [Ibiwoye et al. 2020](#); [Naude and Chiweshe 2017](#); [Žigienė et al. 2019](#)). The successful implementation of ERM is informed by factors such as an executive risk committee; a dedicated corporate risk group Chief Risk Officer (CRO); an internal audit department; skilled managers to promote and engage employees with ERM; risk appetite statements; risk indicators; and the integration of risk with strategic and business planning ([Fraser and Simkins 2016](#)). The successful implementation of ERM's prerequisite of resources does not make it easy for SMEs to implement.

Among other things, the research conducted on RM and SMEs has either been industry-focused ([Idris and Abdullah 2016](#); [T. T. Le 2020](#); [Liem 2018](#); [Mamai and Yinghua 2017](#)) or researched the association between ERM and other factors ([Deni and Riswanto 2019](#); [He and Lu 2018](#)). The research of [Lai and Shad \(2017\)](#) and [Yakob et al. \(2019\)](#) was conducted on the association of ERM and performance, while [Rehman and Anwar \(2019\)](#) focused on business strategy and performance. [Bruwer and van den Berg \(2017\)](#) emphasise that there is a need for a customised RM framework for SMEs. As such, there might still be a need for guidelines to customise a Risk Management Framework (RMF) for SMEs over and above testing the shortcoming of the existing frameworks.

The basic objective of ERM is to improve the competences of the enterprise in attaining the highest performance, coordinating proper reporting, and ensuring compliance ([Malik et al. 2017](#)). ERM positions RM in such a manner that the strategic and emerging opportunities are considered, and better decision making for strategic and operational affairs is enhanced to increase the value of the shareholders ([Gatzert and Schmit 2016](#)). However, RM in SMEs is not prioritised ([Hudakova et al. 2019](#)), although it is significant for the strategic management of the entity ([Havierníková and Okreglicka 2019](#)).

Information governance is imperative for decision making ([Dong and Keshavjee 2016](#)) and is the mainstay for efficient and effective business operations in today's political and economic global world ([Dudic et al. 2020](#)). According to [Greene \(2014\)](#), the entire lifecycle of information in the enterprise is managed through information governance. The goal of information governance is to ensure accurate, relevant, reliable, and comparable information to enable the enterprise to achieve its goal ([Dong and Keshavjee 2016](#)). Information governance may not be isolated from the sustainability of the business irrespective of

whether it is a large enterprise or medium size business, and it therefore has a significant and direct impact on ERM.

SMEs provide approximately 70% of job opportunities and contribute up to approximately 30% of the national gross domestic product (GDP) in South Africa (Bruwer and van den Berg 2017). Vietnamese SMEs constitute 97% of the total business and 77% of the total employment and contribute 40 to 60% of the GDP (Nguyen 2015). As a result, the sustainability of SMEs is negatively influenced by the rough competitive environment, which is subject to economic factors (Sipa 2017). Without information governance, the enterprise may be exposed to the risk of missing an opportunity to grow and be competitive, degenerating their investments.

It might be difficult to make the right decision in SMEs without relevant information. Hence, the enterprise culture on how the information is governed might not be ignored in SMEs. Gorzeń-Mitka (2019) illustrates that the size of an enterprise impacts the culture of the enterprise on awareness. Zaefarian et al. (2020) tap into the limitation of knowledge in SMEs regarding the governance of market information. If the information governance is so critical in organisational positioning and sustainability, understanding what role is played by culture in SMEs concerning information governance might not be ignored. The linkage between information governance and the enterprise might directly affect the way risk is managed in SMEs, as information governance and RM are intertwined.

Bensaada and Taghezout (2019) engaged SMEs on the implementation of RM approaches in their enterprises. They introduced a simplified framework and a customisable methodology practical ERM dual system. Ferreira de Araújo Lima et al. (2020) sketch the evolution of RM in SMEs through the analysis of 61 articles published on the subject until the end of 2016. According to Ferreira de Araújo Lima et al. (2020), the studies analysed show that there is a partial application of ERM in SMEs, and more recent studies are emphasising the need for tools and future models to enhance a holistic approach to the implementation of RM in SMEs.

Gorzeń-Mitka (2019) assessed the relationship between risk drivers and RM processes in SMEs based on Interpretive Structural Modelling (ISM). The drivers of the RM process in SMEs are multidimensional; however, the research is focusing on selected factors. The ISM model of Gorzeń-Mitka (2019) describes a direct and indirect interlink of key factors for the RM process in Polish SMEs. The factors are analysed based on dependence and drive powers. The dependence and drive powers determine the categorisation of the factors.

Havierníková and Okręglička (2019) focus on RM responsibilities and the perception of risk in Slovakia and Polish SMEs. The research was conducted in both countries, and the results on the basic characteristics were compared. The results showed that RM responsibilities in Polish and Slovak SMEs reside with managing directors and owners. There might be no guarantee that similar results will be obtained if similar research is conducted in a developing country, as the dynamics of SMEs in developing countries might differ from those of developed countries. Secondly, the empirical studies' focus is on who is responsible for RM rather than on the content of the RM integrative approach.

SMEs in developed countries are supported by different policies from those of developing countries (Abubakar et al. 2019). Research and development in developed countries are advanced, which enables SMEs in these countries to have access to knowledge resources (Division on Investment and Enterprise of UNCTAD 2016). Factors such as the deficiency of standardised and modern tools in the application of strategic planning, insufficient experience in management and specialised areas, and non-exposure to international business environments make SMEs in developing countries operate differently (Borocki et al. 2019). However, global market changes affect SMEs in developing and developed countries equally. SMEs from developing countries are not exempted from internationalisation, models of open innovations, networking, and mass customisation because of the fact that they operate in a different environment compared to SMEs from developed countries (Sroka and Szántó 2018).

Rehman and Anwar (2019) analysed the role of ERM in facilitating the association of the performance of SMEs and their business strategy. The results confirm that there is a relationship between ERM, business strategy, and SMEs' performance. Crovini et al. (2021) analysed the management and consideration of risk where the founder runs the enterprise and understands the integration of RM integration in decision making. The end product was an RM decision-making model; however, the model has not been quantified or statistically validated.

### 3. Problem Statement

Islam and Tedford (2012) indicate the risks that can negatively impact business performance and ultimately compromise the sustainability and growth of SMEs. They concluded that there is no systematic risk management strategy in most SMEs. Therefore, the statement of the problem is: the failure to holistically manage risk in small medium enterprises (SMEs) is one of the major causes for small businesses failure.

### 4. Methodology

A systematic literature review was adopted to examine the existing scholarly articles on RM in SMEs. The benefits of using a systematic literature review are transparency and clear procedures for assessing the field of research relevant to the research topic, and this method has been commonly used in business and management fields (Deng 2012). The literature review is limited to the sources published between January 2000 and January 2022. The studies that are included focus on RM, SMES, and information governance. The focus on information was based on research in the discipline of financial and management accounting.

Google scholar was used to search for articles from various sources such as EBSCO, Emerald, ProQuest, Science Direct, and Web of Science. The searching criteria were narrowed by using the key words "Risk Management" and "Small Medium Enterprises" to access the journals covering RM in SMEs. The other words used for a search in the topic were (information for governance\*), (information governance\*), (enterprise risk management\*), (management accounting information in SMEs\*), and (financial accounting information in SMEs\*).

Ultimately, 168 articles were identified as being in line with the inclusion and exclusion criteria, and the most relevant articles were selected. Duplicated articles were eliminated, and book reviews were also excluded. Full text articles were glanced through to evaluate the quality and eligibility of the research. The journal articles published by reputable publishers were included in the review with well-cited references. The articles that were peer-reviewed and published in reputable journals were selected. In total, 78 studies were included in this research.

These 78 studies were reviewed to identify what has been written and researched on the topic of RM in SMEs from a broad perspective. The 78 studies included studies that have developed SME RM frameworks and models with a focus on the simplification of ERM implementation in SMEs considering the limitation of resources, and the RM processes and business strategies were individually scrutinised with the purpose of determining a common ground on the subject. The reason these studies were further analysed was to get an insight into the information governance aspects covered in these studies. The components of the conceptual RMF for SMEs were identified, in which 14 variables were recognised based on the literature. The conceptual framework is made up of fundamentals which lay the foundation and pillars that support the framework. The findings of the research are the common ground of the studies reviewed and the components of the conceptual RMF for SMEs (SMERMF).

### 5. Findings

The findings are discussed in two sub-sections: the common ground of the studies on ERM and the components of an RMF for SMEs.

### 5.1. Common Ground of the Studies on ERM

The studies reviewed agree that ERM is critical to SMEs for their growth and sustainability. The common ground for the studies reviewed is the challenges of SMEs, which are the limitation of resources, the need to simplify ERM for SMEs, and the need for guidelines. They all acknowledge the fact that there are different factors that impact the implementation of ERM in SMEs which still need to be researched. All the studies reviewed advocate for the need for more research to be conducted on ERM for SMEs. However, according to the researchers, no study researched information governance leading to ERM in SMEs. Information and communication form part of the components of the COSO ERM framework (henceforth referred to as the COSO ERM) and are also incorporated into some of the studies reviewed. The COSO ERM (COSO 2017) is based on five (5) components, namely: governance and culture; strategy and objective setting; performance; review and revision; and information, communication and reporting. Management uses the COSO ERM widely for the improvement of the management of uncertainty and the identification of risk appetite to increase value. Furthermore, the COSO ERM defined internal control as “a process, effected by an entity’s board of directors, management and other personnel, designed to provide reasonable assurance of the achievement of objectives in the following categories: effectiveness and efficiency of operations, reliability of financial reporting, compliance with applicable laws and regulations.” The reliability of financial reporting therefore relies on information. However, not much is unpacked in previous studies on which information is imperative to SMEs for RM, what sources of information there are, and how it feeds into the enhancement of business strategy and operational strategy. The current research is aiming to tap into the crux of what constitutes the risk types. Information governance may not be isolated from risk monitoring and reporting, even for risk mitigation actions/strategies. Therefore, the current research aims at research information governance as the piece that might contribute to the simplification of ERM in SMEs and unpack its connectivity to financial strategy and monitoring. In order to maintain the logic of the research, and due to the fact that information as a concept is too wide, the focus is narrowed to accounting information. The components of the conceptual framework will be discussed in Section 5.2.

### 5.2. Components of the Conceptual Framework

Information governance, as the processes, people, technologies, and all other strategies to manage information (Haleem et al. 2020), is presented in the proposed SMERMF as the centre that holds all other components together. However, the mapping of the elements for information governance to the basics (fundamentals) and support (pillars) of RM makes the case for the current research. Financial strategies such as working capital management, cash flow management, and business processes such as planning, which are management accounting techniques (Vigarito 2007), cement the components of the SMERMF. The performance of the enterprise is demonstrated by the ability of the enterprise to meet its goals (Falle et al. 2016) and therefore forms part of the SMERMF. Financial Accounting stands out as a discipline given that annual financial statements are prescribed by the IFRS as a source of accurate, complete, and timely information (Alibhai et al. 2020). According to Kehinde et al. (2017), the lack of risk oversight is one of the factors that has not received attention from researchers although it may have a negative impact on the sustainability of SMEs. As such, the current research incorporates oversight as a component for the SMERMF. The components of the SMERMF will not be complete without examining the culture in the enterprise that informs information governance (Too et al. 2017) and the internal controls that are confirmed to enhance the sustainability of SMEs (Wang et al. 2019). Information governance will be discussed next.

- **Information Governance**

Information governance is the management of records, the privacy of information, information freedom, and e-discovery (Mullon and Ngoepe 2019). The goal of information governance is to provide integrated, timely, complete, secure, and consistent information (Ki-Aries and Faily 2017). According to Ki-Aries and Faily (2017), it is not possible for an

entity to operate effectively and efficiently without information governance. Information governance comprises information, business processes, compliance, and people management (Davids and Jokonya 2019). The implementation of information governance policies is not successful due to the silo approach of managing business processes and information (Smallwood 2014).

The business world is becoming complex, and SMEs are required to understand the principles of information governance to thrive (Raymond et al. 2020). Information governance is a necessity and drives the success of an enterprise (In et al. 2019). The role and relevance of record management in running the day-to-day operations of the enterprise are raised by Brooks (2019). Her results confirm the undisputable relationship between information governance and records management. As such, there might be a need for good information governance in SMEs that may form a stronghold for RM for their sustainability. SMEs may need to understand the principle of information governance in their enterprises and take care of the components that feed into information governance.

- **Information**

Information is a source of influence and imminent power (Reich and Lebow 2017). Dong and Keshavjee (2016) assert that data quality is informed by information governance that is well defined for decision making. However, Dong and Keshavjee (2016) viewed information governance from the perspective of technology, processes, people, and policy. Information governance is a holistic approach encompassing various strategies to provide quality information (Rasouli et al. 2016). The current research focused on what kind of information may enhance the governance of information given that SMEs are not highly regulated like large enterprises.

- **Financial Accounting**

Financial accounting information is used by investors to classify and appraise investment opportunities (Bailey and Samuels 2018). The lack of reliable information may obstruct the flow of human and financial capital towards the business (Shabbir and Wisdom 2020). Quality financial accounting information allows investors and managers to determine the value creation prospect with less error and therefore improves efficacy (Akhtar and Liu 2018). According to Akhtar and Liu (2018), it is financial accounting information that assists managers and investors to make a better selection of projects and abandon projects that are not earning returns. As such, financial accounting plays a crucial governance role through providing efficiencies in the management of assets and enhancing economic performance (Staszkievicz and Werner 2021). It might be crucial for SMEs to understand the governance role of financial accounting information and the value it adds to the business from an investor's perspective, along with the management of organisational resources.

The availability of reliable and relevant information with regard to a business' periodic performance, financial position, governance, and investment opportunities portrays transparency in the corporate and business world (Azar et al. 2019). This transparency confirms the credibility and timeliness of disclosure, gives assurance to private acquisition, and ensures the quality of the enterprise (Bailey and Samuels 2018). Financial accounting information improves the information environment through unaudited disclosure and provides a contribution to the information processing activities of the world outside the enterprise (Darma et al. 2018). The quality of financial information disclosure affects the cost of capital in which the cash flows are discounted and ultimately influences the cash flows (Gao and Jia 2016). Therefore, the vital governance role of financial information to boost economic performance may not be isolated in SMEs.

SMEs preparing annual financial statements and using them for decision making have more confidence about performance and financial status compared to those not preparing annual financial statements (Vanauken et al. 2016). Financial statements provide insightful statistics regarding the likelihood of risks and returns, informing many decisions and playing a significant role in the success of the enterprise (Akhtar and Liu 2018). Financial

statements are a reliable source of information that is used by both internal and external stakeholders including equity providers and lenders (Alibhai et al. 2020). As much as the financial statements are used as a governing tool for financial accounting information (International financial reporting Standards (IFRS) (2016)), they provide high-quality information within the integrative approach of information governance. Therefore, the preparation of annual financial statements is considered a component of the SMERMF.

The quality of published accounting information needs to be linked to issues on corporate governance. Dimitropoulos and Asteriou (2010) reviewed how board composition affects the quality of information portrayed in the annual accounting earnings of listed enterprises. More conservative reporting of bad news and reporting earnings of higher quality were found in enterprises with more external board members. Although SMEs largely may not have boards, they still need to ensure the quality of the reporting of their earnings. Leventis and Dimitropoulos (2012) found that aggressive earnings management is less practiced in well-governed banks, and Leventis et al. (2013) also found a relationship between corporate governance and the quality of accounting information, thereby providing evidence that higher levels of accounting conservatism result from effective governance structures. Therefore, SMEs may also need to take note of the importance of information governance and governance structures.

- **The accounting process**

SMEs do not prioritise the implementation of the accounting process (Sonia and Gianto 2018). According to the study, the effective and efficient recording and reporting of financials are recommended for the success of SMEs. Recording and reporting can help SMEs' owners to provide financial accounting information to determine the business performance and serve as the basis for allocating funds and decision making (Rekarti and Doktoralina 2017). The failure of SMEs to do basic accounting leads to the inability to manage finances and adversely affects the progression of the enterprise (Ogundana et al. 2017). If financial accounting information directly impacts information governance and the accounting process is the starting point in putting together the financial information, the accounting process is crucial to SMEs. Furthermore, according to Davids and Jokonya (2019), business processes form part of the definition of information governance. Therefore, the accounting process as a business process is directly linked to information governance.

- **Financial management process**

Financial management is not just a critical element of business management; it is the most important (Muneer et al. 2017). B. Le (2019) posits that financial management, especially working capital, is one of the challenges that SMEs are struggling with. SMEs tend to manage their finances in a different manner from large enterprises due to the size of their businesses (Muneer et al. 2017). They are of the view that SMEs are required to manage their finances in an almost similar manner to large enterprises. According to Gorondutse et al. (2017), SMEs need to implement an appropriate accounting system and manage their working capital and cashflow well to ensure that they remain liquid and solvent.

The survival of an enterprise is dependent and centred around cashflow management (Afrifa 2016) for the achievement of short- and long-term financial goals (Aliona 2016). Although SMEs may have limited resources, Dimitropoulos et al. (2020) established that, during substantial financial turmoil, when enterprise risks might be high, a valuable tool to sustain the viability and financial performance of SMEs could be cash holdings and effective cash management. It is pertinent for SMEs to have an in-depth understanding of cashflow and forecasting as to when the money will be received or spent, ensuring the sales of products/services and timing together with estimates of the expected expenditure (Kintu et al. 2019). A failure to properly manage cashflow may put the enterprise at risk of collapse. As such, cashflow appears to balance the activities within the business and therefore forms part of the SMERMF.

Working capital is a significant element in SMEs that needs to be managed well, as most of the resources and assets may be in the form of current assets (Zimon 2020). The performance, sustainability, and competitiveness of the enterprise are enhanced by the efficient and effective management of the working capital (Mättö and Niskanen 2021). The primary role of working capital management is to ensure the efficient and effective management of resources to enhance the performance and, ultimately the profitability of the enterprise (Lyngstadaas and Berg 2016). SMEs may need to focus their attention on the impact of working capital management to mitigate uncertainty in their level of working capital.

- **Management Accounting**

Management Accounting (MA) produces information that spearheads the core in assessing performance and evaluating the accountability of the enterprise, and it therefore serves as a control measure in a competitive operating environment (Zahid and Vagif 2020). Hence, MA techniques including budgeting, capital investment appraisals, and ratio analysis have since been used in managing business risk (Vigarito 2007; Hutaibat and Alhatabat 2020). According to Zahid and Vagif (2020), in the 21st century, the changes in the global trends of business networks, competition, and security markets that affect the business environment mandate new MA information. The current research aims to define the information that is essential for information governance leading to ERM in SMEs. MA techniques are described as control tools that are used to manage risk (Vigarito 2007). It might be imperative for SMEs to appreciate the value of this interdependence in relation to their growth and sustainability. As such, MA may be providing essential information for information governance and, ultimately, for managing risk.

RM is a feature of an enterprise's life in all different forms of enterprises, whether it is listed or unlisted (Sadgrove 2016). According to Sadgrove (2016), it is not a coincidence that attention has been paid to the role of MA in RM. The increased focus on RM stems from the importance of CG, detecting, measuring, treating, and observing risk, and the competence of management controls (Palermo 2017). RM should be approached from a holistic perspective, as risk affects each aspect of the enterprise (Hopkin 2014). Palermo (2009) directly links the position of MA to RM. In agreement, Chiwamit et al. (2017) emphasise the proactive role of management accountants in connecting and collaborating risk control. Therefore, there is an emphasis on MA in RM. It might be essential for SMEs to start appreciating this connection. As such, MA, under the umbrella of accounting information, is considered an important component of information governance that leads to ERM.

- **Streamlined Business Processes**

Business process management (BPM) is linked to the framework of organising, systematising, arranging, classifying, and categorising the day-to-day processes, incorporating the appropriate means with a goal of enabling the enterprise to add value to the enterprise (Figl 2017). The business processes are critical to the operational efficiencies of the enterprise (López-Pintado et al. 2019). It is important to manage the business processes in such a manner that they complement the corporate strategy, support operational efficiency, and enhance the competitive advantage (Lu et al. 2021). Streamlined business processes in an enterprise result in profitability, good customer relations, efficiencies, proper cost management, accountability, and the enhancement of market competitiveness (Harl et al. 2020). Liu et al. (2019) argue that BPM is equally as important to SMEs as it is to large enterprises. As such, business processes are important for the sustainability of the enterprise, regardless of its size. A failure to ensure that business processes are streamlined appears to be a risk to the enterprise and, therefore, is considered imperative to the RMF for SMEs.

- **Planning**

Budgetary planning, as a component of MA, enables the enterprise to have insight into its market position in the short term and provides feedback on performance (Rice et al. 2007). Hence, budgetary planning in the 21st century has adopted the identity of being a

strategic tool that is collaborating with both the external and internal strategic environment of the enterprise (Mora and Bueno 2017). As much as a budget is a planning and controlling mechanism, management needs to be clear as to what needs to be achieved during the short and long term (Oyebode 2018). A budget is critical in setting the direction with regard to planning, assessment, organising, communication, and, eventually, decision making for an enterprise (Alade and Owabumoye 2020). Proper budgetary planning is essential for the achievement of the enterprises' objectives (Kwarteng 2018). As such, planning is considered imperative for the RM for SMEs.

- **Performance measurements**

The performance of the enterprise is demonstrated by the ability of the enterprise to meet its goals (Falle et al. 2016). It is relevant for the enterprises' performance to be gauged against the practices, values, and strategies for any well-performing enterprise in the world (Martinez-Martinez et al. 2019). Nevertheless, Expósito and Sanchis-Llopis (2019) suggest that innovation is an influential factor for SMEs' performance. Therefore, the views seem to differ when it comes to a proper approach of measuring the performance of the enterprise. However, there seem to be a common ground that the enterprise's performance needs to be measured. As such, performance measurement appears to be important to the enterprise irrespective of its size and, therefore, forms part of the SMERMF.

The results of Malagueño et al. (2018) illustrate that SMEs that are using the balance scorecard (BSC) are performing better financially and are good at innovation. The BSC is three-in-one, as it incorporates performance measurement, a control system, and strategic management techniques (Cooper et al. 2017). The benefits of the BSC for integrating measurements for both the financial and non-financial aspects of the business and the amalgamation of the structure, vision, and strategy are some of the traits that makes the system popular (del Carmen Gutiérrez-Diez et al. 2022). Llivisaca et al. (2020) tested the use of the BSC in SMEs and concluded that SMEs can benefit from using the system. According to Falle et al. (2016), the implementation of the BSC is possible in SMEs provided that the specific conditions and requirements of the entity are considered. However, the results of the study further indicate that, in order to successfully implement the BSC in SMEs, the process of designing the system should be simplified to accommodate the adjustment to the characteristics of SMEs. Dudic et al. (2020) found that company performance can be enhanced by applying the BSC, and challenges can be overcome by management and employees. Dimitropoulos et al. (2017) established that employees that attended training programs attained more skills and abilities, and, when implementing the BSC in a municipal sporting entity, effective performance management and future sustainability were achieved. Nevertheless, the BSC seems to be an integrative performance measurement that is good for performance measurements irrespective of whether it is viably applicable to SMEs or not.

- **Culture**

Information governance experts believe that the provision of accurate information is driven by the control characteristics of the enterprise's culture (Ameen et al. 2018), and effectiveness of information governance is informed by the culture of the enterprise. Enterprise culture also empowers the adoption of change for the implementation of information governance (Too et al. 2017). Ignoring the enterprise culture during change management may result in the unsuccessful implementation of information governance (Mullon and Ngoepe 2019). The relationship between human beings and information defines the culture of the enterprise (Daneshmandnia 2019). Isa et al. (2019) argue that information governance is influenced by organisational and social requirements. As such, the culture in the enterprise informs the governance of information (Hanifah et al. 2019). Therefore, it might be important to scrutinise the culture in SMEs and see how it impacts information governance, as the culture in small enterprises may differ from that of large enterprises.

- **Internal Controls**

The effectiveness of internal controls ensures that decisions are taken based on correct information and improve the efficiencies in operations (Cheng et al. 2018). According to D’Mello et al. (2017), internal controls align the efficiencies in the allocation of resources, providing efficiencies in operations. Internal controls are used as a governance tool in retaining the customer–supplier relationship (Bauer et al. 2017), controlling excessive executive compensation (Paletta and Alimehmeti 2016), and safeguarding the resources of the enterprise (Gao and Jia 2016). The value that is added by the internal controls in the enterprise may not be ignored by SMEs. Internal controls tap into almost all the aspects of the enterprise, which echoes the fact that it is a governance tool (Bure and Tengeh 2019). SMEs acknowledge the value of implementing a system of internal controls in their enterprises (Dubihlela and Nqala 2017). As such, it might be worthwhile to look at this interconnection of internal controls and information governance in SMEs.

- **Oversight**

The size of the enterprise informs the execution of the oversight function instrument (N’Guilla Sow et al. 2018). External auditors, certified fraud examiners, audit committees, internal audits, boards of directors, and management are the structures that perform oversight processes in large enterprises (Pollman 2019). The challenge in SMEs is that they might not have all these structures. In some cases, there is no differentiation between the managers, executive managers, and owners of the enterprise in SMEs (N’Guilla Sow et al. 2018). Given the lack of differentiation between executive managers and owners in some SMEs, the duty of ensuring the culture of control and the integrity of the business resides with executive management (Ma’aji et al. 2018). The lack of risk oversight is one of the factors that has not received attention from researchers; however, it may have a negative impact on the sustainability of SMEs (Kehinde et al. 2017). As such, a one-size-fits-all oversight model might not work for both large enterprises and SMEs. There may be a need for guidelines on how SMEs may enforce oversight in their enterprises, irrespective of the limited resources. Furthermore, it might be imperative to obtain an insight into the impact of the oversight on RM and its connection to the sustainability and growth of SMEs. Therefore, oversight forms a component of the SMERMF.

- **Leveraging information technology**

Information technology drives and reinforces successful economies (Aldasoro et al. 2022). The artificial intelligence and cloud-based systems among information technology (IT) mechanisms are now the enablers for businesses, irrespective of whether they are small, medium, or large enterprises or in the private or public sectors (Yathiraju 2022). Equally so, this increases the exposure to cyber-attacks, resulting in the interruption of the day-to-day running of the business and, ultimately, financial loss (Pugnetti and Casián 2021). The privacy of information is violated by these cyber-attacks, and it therefore might not be possible to exclude information technology from information governance in SMEs. Leveraging information technology forms part of the components of the COSO ERM under information, communication, and reporting (COSO 2017).

It might not be disputed that IT and cyber risks are part and parcel of operation risks (Aldasoro et al. 2022). Furthermore, SMEs are often characterised by a lack of resources (Wang et al. 2019). The lack of knowledge in certain areas of expertise is one of the factors that also hinders their growth (Shaikh et al. 2021). According to Shaikh et al. (2021), there is a lack of technical knowledge about the tools that may be used to address cyber security challenges in SMEs. However, organisations that are investing in information technology specialists are better equipped to mitigate the cyber risks and also devise better internal policies and guidelines to reduce the costs of cyber incidents (Serag et al. 2022). Transferring the cyber security risk to a third-party service provider is the mechanism that is used by some organisations to benefit from the economies of scale for using similar service providers (Geer et al. 2020). As such, it is important for SMEs, especially in the 21st century, to leverage information and technology for their own sustainability.

- **Risk assessment and risk appetite**

Risk assessment is the central aspect for an RMF and is fundamental to the whole process (COSO 2017). It is crucial for SMEs to conduct risk assessments. However, this should be accurately performed; otherwise, it may serve no purpose (Gorzeń-Mitka 2019). According to Hardy (2014), risks are linked to objectives that might be impacted and are evaluated inherently and residually. Risk assessment is considered imperative and should form part of the SMERMF.

Risk appetite has a direct impact on returns to the business (Berlinger and Váradi 2015). The fact that the business is operating exposes the entity to business and financial risk (Vigario 2007). The exposure to business and financial risks is not only limited to large enterprises, however; it is equally applicable to SMEs. As such, all the business operations, irrespective of the size and whether the business is in a developed or developing country, need to take into account its risk appetite and also perform a risk assessment for their own sustainability and survival.

The risk appetites for different sectors and operations are not alike (Kim and Vonortas 2014). According to Acar and Göç (2011), a comparison between the managers from developed and developing countries demonstrates that the managers from developed countries take more risk compared to those from developing countries, which illustrates that the risk appetite varies with individual cultures. Watson and Newby (2005), concluded that male-owned SMEs have a greater risk appetite compared to female-owned SMEs. The risk appetite may vary based on age, gender, resources, level of knowledge, and the available tools that may assist the SMEs in the subject of RM. As such, risk appetite is fundamental to SMERMF.

Figure 1 presents the conceptual RMF for SMEs. It summarises the conceptual RM framework for SMEs and illustrates all the building blocks that are the components of the RMF. The first block contains the fundamentals of the RMF for SMEs. For the purpose of this research, the fundamentals are the basic principles of RM in SMEs. Control, oversight, and culture support the SMERMF as pillars. The pillars mean the activities or the essentials of the backbone of RM in SMEs. Both fundamentals and pillars directly impact the ERM. However, fundamentals overlap in directly influencing the elements of information that impact the information governance and, ultimately, the ERM. Among the fundamentals, the determination of risk appetite for the entity and risk assessment are complementary and are a foundation to ERM, whereas the reporting of risk indicators cannot be isolated from the monitoring of risk.

All of the components discussed are mapped in Figure 1, demonstrating the connection of business processes, financial strategies, and the monitoring of risk to the fundamentals. Furthermore, Figure 1 illustrates how the components of the SMERMF affiliate with the fundamentals and pillars of RMF, while some of these components are the elements of information sources that feed into information governance and, ultimately, ERM. The intention of this RMF is to be usable in any SMEs irrespective of size and sector. SMEs may use this RMF through setting the fundamentals as a foundation, allowing the pillars to support RM, implementing financial strategies, aligning business processes, and monitoring the risk.

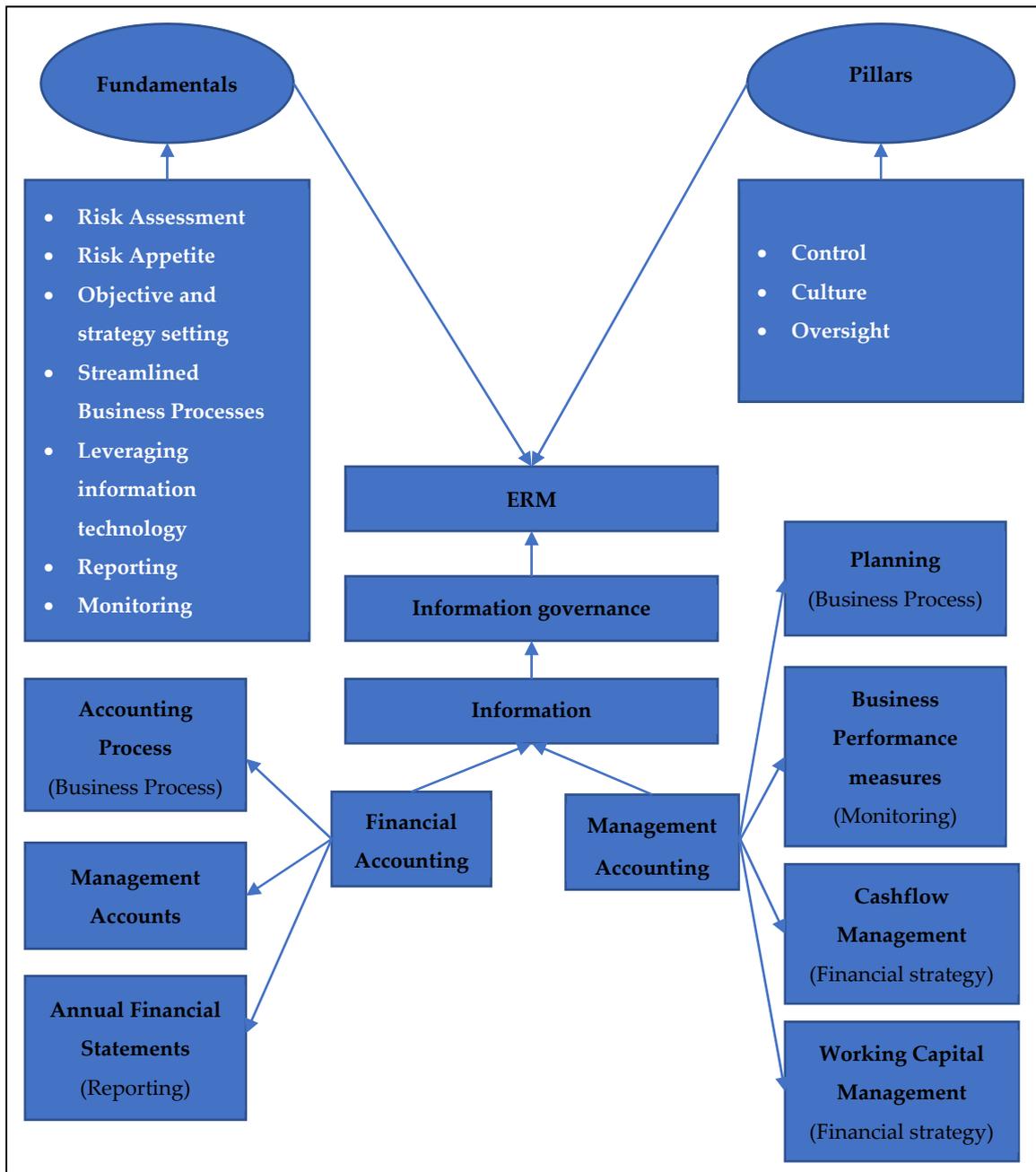


Figure 1. Conceptual SMERMF. Source: Author’s own.

### 6. Conclusions

Since information is crucial to all sizes of enterprises, information governance should play an important role. As such, the need for good information governance in SMEs to ensure RM for their sustainability has been incorporated into the framework. SMEs may need to be made aware of the principle of information governance and how to take care of the components that feeds into information governance. In this article, financial information has been in the centre of information governance. It might therefore be important for SMEs to understand the governance role of financial accounting information and the value it adds to the business from an investor’s perspective, along with the management of organisational resources. SMEs need to address the accounting process, or lack thereof, as well as the financial management and management accounting within their enterprises in order to manage risk in the enterprises. When SMEs streamline their business processes,

risk can also be reduced. Another way to manage risk is to ensure that planning takes place in the form of budgets and to leverage information technology. Performance measurement is also important since an enterprise, whether large or small, should be able to measure their performance to ensure they remain sustainable. The culture of the enterprise, internal controls, and oversight are important pillars on the basis of which an enterprise should manage their risk. Each SME should conduct a risk assessment and know their risk appetite to ensure they know how far they are willing to go to be competitive and sustainable. Having objectives and strategies in place will also assist in the management of risk. The contribution of the article is to provide an RM guide to SMEs on the interconnectivity of risk with the objective setting, financial processes, financial strategy, and monitoring, including strategic context positioning. This intends to address the challenge of adopting a holistic approach to RM in SMEs, which is one of the major causes of small business' failures in developing countries. Furthermore, the article provides an RM tool to SMEs that is inclusive and does not focus on a specific functional area or sector, assessing the dimensions of risk within the spectrum of information governance. As much as SMEs have limited resources, based on the findings of this research, it might be possible to adopt a holistic approach in their RM through managing the aspects of information governance. This may assist SMEs with risk assessment, aligning their risk appetite and using ERM for their own survival and sustainability. The limitation of the research is its focus on internal information, and it is recommended that future studies analyse the aspect of external information.

Future work will entail distributing a questionnaire to SMEs based on the developed framework to enhance the framework, followed by conducting focus groups to validate the final framework.

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