Towards an Operational Management Risk Taming Model for

MICRO-INSURANCE

Organisations in Zimbabwe

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DISCLAIMER: The views and opinions expressed in this book are those of the authors and do not necessarily reflect the official position of funding partners"

DEDICATION

I dedicate this to work to my husband, children, parents and siblings for the love, patience and support they have demonstrated throughout the course of the research which have culminated into this intellectual output.

ACKNOWLEDGEMENTS

BOOK SYNOPSIS

This monograph is based on a study that sought to assess the taming operational management risks model in micro-insurance organisations based on a study of SamChi Micro-Insurance. The study also sought to explore the plausible sources of operational risks associated with SamChi Micro-Insurance operations, assess the operational risk management strategies currently being employed at SamChi Micro-Insurance, establish the plausible benefits of effective operational risk management to micro-insurance companies and to design a framework that can be used to effectively manage operational risks at SamChi Micro-Insurance and other similar micro-insurance organisations. A sample size of 92 respondents that consisted of the managerial personnel and employees of SamChi Micro-Insurance located within the city of Harare, Zimbabwe was used for the study and all the 89 returned the questionnaires that were administered to them that resulted in the study attaining 97% response rate. Quantitative research methods were employed in the study utilising a probability stratified random sampling technique. A descriptive research design was used. Data analysis was done using descriptive tests using SPSS 25. Data were also entered into the SPSS for descriptive analysis. The researcher used the SPSS 25 software to conduct statistical analysis of the data that was presented. Reliability tests and correlation were all carried out using the tool. The study concluded that the major sources of operational risk for SamChi Micro-Insurance are a lack of clearly defined standard operating procedures, inadequate staff training, poor communication between departments, outdated technology systems, and insufficient internal controls. These operational risks significantly impact SamChi's vulnerabilities if not properly addressed. The study also concluded that while SamChi's existing operational risk management strategies around risk management training, ongoing risk identification and monitoring, clearly outlined roles and responsibilities, and regular control evaluations are generally aligned with leading practices, there is still room for improvement. In particular, the study found that SamChi's underwriting risk oversight and fraud prevention strategies could be strengthened. Based on these conclusions, the study recommends that SamChi focus on enhancing their internal processes, communications approaches, staff competency development programmes, technology infrastructure, and control

mechanisms to more effectively minimize operational risks. It also recommends that SamChi undertake a more comprehensive evaluation of their entire operational risk management framework to identify any existing gaps and implement corrective actions to ensure risks are appropriately mitigated across all functional areas.

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ABBREVIATIONS AND ACRONYMS

AI	Artificial Intelligence
ANOVA	Analysis of Variance
Bart	Bartlett's test
BSV	Bartlett's Sphericity Value
CI	Coefficients
DS	Descriptive Statistics
EV	Eigen Value
FA	Factor Analysis
HOM	Homoscedasticity
HT	Hypothesis Testing
KMO	Kaiser-Meyer-Olkin
KMOSA	Kaiser-Meyer-Olkin Sampling Adequacy
LIN	Linearity
MR	Multiple Regression
NOR	Normality
Sig	Significance
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom

CHAPTER ONE: INTRODUCTION

The use, adoption and integration of innovative technologies and tailored solutions hold promise for extending insurance access to, philosophically-speaking, 'underserved' communities globally. While micro-insurers in different contexts face constraints studies from the UK, Poland and Australia provide intellectually fecund examples of impactful approaches for strengthening operations. The background to this research output seeks to synthesise key insights aimed at informing future research on scaling micro-insurance in developing markets. The central strand or trope of argument in this monograph is that implementing a comprehensive operational risk management framework tailored to the local context can help microinsurance companies in Zimbabwe like SamChi Micro-Insurance more effectively manage risks and strengthen their operations, thereby better fulfilling their social mission of enhancing access to insurance for underserved communities.

Many insightful studies have been conducted in European countries. In the United Kingdom, Taylor *et al.* (2020) conducted in-depth case studies of five leading micro-insurers. They brought to the fore, through their study, the fact that automation strategies for streamlining underwriting processes, such as using machine learning to assess risk profiles from limited client data, were especially impactful in reducing errors and fraud risks. Meanwhile, digital tools for agent oversight, including geo-tracking policies sold and automated fraud checks, enhanced controls have never been accessed their plausibility thereof, especially in the Global South situatedness. Over in Poland, Wójcik *et al.* (2021) analysed a large micro-insurer's portfolio of approaches through interviews and documentation review. They observed the company prioritized customised insurance policy design tailored to diverse client needs. Digital claims processing platforms also bolstered transparency and accuracy. However, both UK and Polish studies noted resource constraints meant approaches often relied on basic technologies and manual reviews remained important.

Within Australia, the Insurance Council of Australia (2019) profiled ten microinsurance providers through surveys and focus groups with managers. A key finding was outsourcing of investment management and reinsurance to

experienced partners alleviated expertise gaps. This allowed focus on core underwriting competencies. Additionally, customising staff training programmes that combined online modules with field exercises helped ensure accurate application of processes by agents. A deeper case examination by Smith (2021) of a prominent Queensland farm insurer provided qualitative insights. Bundling basic property coverage with agricultural advising services and livestock health programmes addressed both affordability and financial literacy risks facing clients.

Micro-insurance holds potential for extending protection to many Africans currently excluded from formal coverage. The studies from South Africa and Botswana demonstrate approaches for navigating contextual challenges on the ground (Morrison, 2020). South Africa illustrates how leveraging local agents, and customised products can establish trust and meet community needs. However, Botswana demonstrates approaches reveals issues that threaten sustainability if left unchecked. Moving forward, regulatory adaptation and strategic technology integration show promise for strengthening controls while keeping costs low (Krairoj, 2023). This background examined such lessons for tailoring micro-insurance models to better serve households across diverse African settings.

Recent African analyses also offered novel and plausible perspectives. Mthombeni and Mupangavanhu's (2020) conducted an insightful in-depth case study of one of the largest micro-insurance providers in South Africa through interviews and focus group discussions. The study explored in detail the strategies employed by the insurer to effectively serve traditionally underserved communities. A key finding was the insurer's use of local community members as insurance agents. By training and certifying local ethical agents familiar with the area and culture, the insurer was better able to establish trust and address socioeconomic barrier faced by clients.

The agents also helped promote financial inclusion by educating clients and enabling accessibility through face-to-face support and flexible premium collection options. Furthermore, the study highlighted how the insurer designed customised family and women focused insurance policies (Garvin, 2020). These plans addressed risks most pertinent to households, such as

injury, illness or death of breadwinners. They also accounted for preferences and responsibilities of female clients. Through nuanced consideration of cultural and demographic realities, the insurer demonstrated how micro-insurance product design and distribution channels could be adapted to underserved markets in South Africa (Nelson, 2021). The case study provided valuable qualitative insights into inclusive strategies successfully navigating contextual challenges to meet client needs.

Botswana has a relatively developed micro-insurance sector serving over 25% of the population (Siriril, 2021). However, a study by Mooketsi and Seleka (2019) notes several operational risk control deficiencies jeopardising financial viability. Through a mixed method survey of 30 insurers, it was found underwriting guidelines were inconsistently applied often favouring short-term sales targets over integrity. Additionally, manual claims processes lacked transparency and fell prey to forgery.

In response, Botswana's Non-Bank Financial Institutions Regulatory Authority in 2021 mandated minimum automation standards for insurance companies. This has since prompted many insurers partnering with global insure-tech firms introducing biometrics integration, AI based underwriting and blockchain verified claims tracking technology (Thomas, 2020). Early progress is promising with reported 40% reductions in erroneous payouts and 25% rise in renewals. However, the high costs of systems remain a hurdle for smaller insurers. Going forward, incentive schemes promoting sector wide platforms may help optimize benefits of emerging technologies better serving low-income demographics (Oliver, 2020).

Zimbabwe presents unique challenges but also opportunities for expanding insurance access to underserved populations at the community level (Raymond, 2020). Recent studies provide valuable insights into strategies customised for national context. By examining partnerships between micro – insurers and established organisations like agricultural cooperatives, lessons can be drawn around leveraging social networks and infrastructure to boost outreach and education. However, resource constraints threaten the sustainability of promising models (Paul, 2020). This section analysed such findings on tailoring distribution and awareness efforts to local needs and

conditions, and on-going barriers to wider implementation that must be overcome.

Zhou *et al.* (2019) conducted an insightful survey-based study exploring strategies for expanding microinsurance access in rural Zimbabwe. The researchers visited two remote and impoverished districts - Mutare and Chimanimani - and distributed questionnaires to leaders of local agricultural cooperatives and insurance company agents operating in the areas. Through statistical analysis of the responses, Zhou *et al.* (2019) found that partnering with established community organisations such as agricultural cooperatives could help leverage the existing social capital and trust between these institutions and local farmers/residents. By working closely with cooperatives, micro-insurers could tap into existing networks and infrastructure to boost customer outreach efforts.

Additionally, the study revealed cooperatives were well-positioned to support financial education initiatives through workshops and informational sessions on insurance concepts (Darlington, 2020). This cooperative partnership model held promise for raising awareness and ultimately improving customer retention rates. However, the researchers also noted resource constraints were a major issue across most of rural Zimbabwe that limited wide-scale adoption of such strategies (Gambakwe, 2021). Micro-insurers faced difficulties in adequately training cooperative partners and agents due to budget limitations. This restricted scale of collaboration efforts between insurers and communities.

As economic challenges drive many Harare residents to seek risk protection solutions, micro-insurance is increasingly prominent yet also faces barriers to fully meet local needs (Mutukwa, 2023). Recent analyses provide important insights for strengthening appropriate inclusive models at the community level. While flexible premium options have expanded access points in high density suburbs, financial illiteracy threaten goals of well-regulated coverage (Byron, 2021). This section examines strategies insurers utilise to partner with grassroots and overcome such hurdles.

Microinsurance has been growing in importance in Harare as more low-income residents seek to manage risks in the unstable economic environment. A study by Chidozvo and Jinjika (2021) examining the market penetration of microinsurance in the city found that over 30% of households in low-income high-density suburbs now utilise some form of basic coverage. The three largest insurers in Harare - GetBucked, MicroKing and Hwindi - have led the charge in developing flexible premium payment options such as weekly micro-deposits that are more accessible for cash-dependent clients.

However, Chidozvo and Jinjika (2021) also reported that lack of financial education remains a major barrier, with many policyholders not fully aware of coverage details or claim procedures. To address this, insurers have begun partnering with community organisations, schools and churches to conduct educational workshops in local areas. While take-up has increased, the study concluded that significant further efforts are still needed if Harare is to achieve its national financial inclusion targets through appropriate, well-regulated microinsurance services for the most at-risk populations.

A case of Zimbabwe's pioneering micro-insurers, SamChi faced a crisis threatening its operations and reputation centred around and deficient claim processes. A fraud investigation unearthed vulnerabilities exploited through falsified documentation and loose authentications lacking independent oversight. With over half of death claims lacking proper validation, it was clear immediate action was needed if Harare is to achieve its national financial inclusion targets through appropriate, well-regulated micro-insurance services for the most at-risk populations.

SamChi Microinsurance faced significant challenges with its claims verification processes that undermined the integrity of its microinsurance services (Mawere, 2021). Over half of death claims submitted between March and October 2016 lacked a legitimate supporting document such as a death certificate (SamChi Microinsurance Report, 2016). A particularly suspicious claim from April 2016 involved a $5,000 payout where the policy in question was only registered in November 2015, yet no death certificate was provided (Murahwa, 2019). Upon further investigation, it was discovered that the same

beneficiary had fraudulently claimed $5,000 nine months prior for another individual without a valid cause of death documentation (Makumbe, 2020).

This exposed vulnerabilities and operational risks that allowed falsified documents to be wrongly approved for payouts. More broadly, SamChi Microinsurance faced issues because its verification system overly relied on approvals from local leaders rather than independent authentication sources, creating opportunities for claims fraud to take place (Maganga, 2022). With over half of death claim documents lacking proper validation, it was evident SamChi's processes were ill-equipped to deter fraudulent activity and protect the integrity of its financial inclusion offerings that were aimed at rural communities (Chekure, 2020).

To rectify these weaknesses compromising its credibility and mission, SamChi needed to implement robust reform measures to its verification practices, including mandatory death certificates, partnering with registration authorities, and education initiatives to prevent future document tampering or misuse (Moyo, 2016). Without addressing these administrative challenges highlighted in their fraud report, SamChi risked losing customer trust in its microinsurance products long term (Moyo, 2023).

Based on literature review, some key aspect of operational risk management strategies for micro-insurance companies are known. Studies like Rhad (2023), have explored sources of operational risks such as employee errors, technology failures and external events. Common risk management approaches employed include establishing formal procedures, conducting risk assessments, obtaining insurance, outsourcing non-core functions, and providing staff training. Regular reviews and adopting best practices from larger firms are also regarded as effective. Furthermore, the benefits of strong operational risk management identified include improved resilience, reliability, reputation, and profitability. However, there are also various gaps in knowledge about operational risk management strategies for microinsurance companies.

Literature on this topic within the Zimbabwean context is scant; there is therefore a dearth of literature in the area of study, with most research

focusing on other regions. While generic sources of risk and strategies are understood, what specifically applies to the local conditions and constraints faced by Zimbabwean micro-insurers like SamChi is unclear. Additionally, interactions between rational and institutional drivers of risk management approaches remain underexplored. The central of what is not known is the lack of empirical analysis and documentation of the operational risk management strategies employed specifically by micro-insurance companies in Zimbabwe.

There is a need to generate original evidence and insights from a case study of practices within the local market context. The study aims to address the central research gap by assessing the operational risk management strategies employed at SamChi micro-insurance, one of the major micro-insurers in Zimbabwe. A case study approach provided in depth examination of SamChi's customised approaches to balancing risk oversight with its social mission and constraints. Findings can advance both academic understanding and industry the best practices within the Zimbabwean micro-insurance sphere.

The aim of the study was to develop a model for managing operational management risks in micro-insurance organisations based on a case study of SamChi Microinsurance. The study aimed to address gaps in existing research canon by assessing the operational risk management strategies employed at SamChi Microinsurance, a major micro-insurer in Zimbabwe. A case study approach provided an in-depth examination of SamChi's customised approaches to balancing risk oversight with its social mission and constraints. The findings can advance both academic understanding and industry best practices within the Zimbabwean microinsurance sector.

Among pertinent objectives of the study, the study seeks, *inter alia*:
- ☐ To explore the plausible sources of operational risks associated with SamChi Micro-insurance operations;
- ☐ To assess the operational risk management strategies currently being employed at SamChi Micro-insurance;
- ☐ To establish the plausible benefits of effective operational risk management to micro-insurance companies;

- [ ] To design a framework that can be used to effectively manage operational risks at SamChi Micro-insurance and other similar micro-insurance organisations.

The study flows from the following priori, that is, intellectual preconceived conceptions:

H1: Underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance.

H2: SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues.

H3: Effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi.

H4: Implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks.

The study sought to fill a significant research gap by examining the operational risk management strategies employed by microinsurance companies in Zimbabwe. There is currently limited published literature on this topic within the Zimbabwean context. The study collected primary data by assessing the approaches used by SamChi Microinsurance, one of the major micro-insurers in Zimbabwe.

Most existing research in the canon has focused on other regions around the world, such as Europe, Asia, and South Africa. The study provides an original analysis of a case study from Africa and specifically Zimbabwe. The findings generated new empirical evidence about best practices, challenges, and lessons learned from a micro-insurer operating in Zimbabwe as it strives to balance risk mitigation with access to insurance services. This will advance academic understanding of the microinsurance industry within the local context.

The research methodology and framework developed in the study, along with the findings, provided a model for further comparative case studies of operational risk management in Zimbabwe's microinsurance sector. Other

scholars could build upon this work by conducting additional case studies of SamChi or peer firms over time. The literature review laid out the current gaps in knowledge and identifies relevant concepts from other contexts that could be applied in Zimbabwe, guiding direction for future exploratory research.

Certain aspects of the study have potential to be published in peer-reviewed local and regional academic journals due to the novelty and relevance of the topic. Practitioners at SamChi and others in the microinsurance industry may apply the strategic recommendations to strengthen their own approaches. Regulators could use the insights to help develop a risk-focused regulatory framework and promote best practices.

By identifying strategies to enhance accountability and trust, the study supports SamChi's role in improving financial inclusion and community resilience. It evaluates how risk oversight can foster the sustainable growth of microinsurance to achieve social goals in line with Education 5.0 objectives. The recommendations may also inform capacity building through customised staff training, helping to transfer skills and problem-solving abilities. Ultimately, the research aims to produce practical knowledge on enhancing systems and processes within SamChi and across the microinsurance sector in Zimbabwe.

Delimitations are the boundaries that the researcher sets in a research study, deciding what to include and what to exclude (Nelson, 2022). They help to narrow down the study and make it more manageable and relevant to the research goal. In the case of studying an assessment of the operational risk management strategies employed by microinsurance companies in Zimbabwe using the case of SamChi Microinsurance, the following delimitations are identified:

The study focused on a specific time period that 2019 to 2023. This delimitation allowed for a more focused analysis of recent trends and developments within the organisations. Focusing on the time period of 2019-2023 allowed for a recent and relevant analysis. Looking only at the past few years provides data and insights that are most applicable to the current

business environment and risk management practices. Going back further was feared to introduce outside factors and changes that are less useful for the intended assessment.

The study will include managers and employees at SamChi Microinsurance. However, the delimitation will exclude managers and employees from other organisations or industries. Limiting participants to only SamChi Microinsurance managers and employees ensures the research captures information specific to that organisation's strategies and operations. Including other organisations could introduce variability in approaches and potentially dilute the findings for SamChi. The intention is to assess risk management at this particular company.

The study will primarily focus on developing an operational risk management framework for micro-insurance organisations based on a case study of SamChi Micro-insurance. This delimitation ensures a targeted investigation into designing a model for effectively managing operational risks at SamChi and similar micro-insurance companies. Considering additional concepts beyond analysing SamChi to establish an operational risk management framework could make the study too broad and unfocused from its core objective. Therefore, limiting the scope to "THE TAMING OPERATIONAL MANAGEMENT RISKS MODEL IN MICRO-INSURANCE ORGANISATIONS: BASED ON A STUDY OF SAMCHI" helps keep the investigation scoped appropriately to meet its intended goal of proposing a solution to operational risk management for micro-insurers.

The study will be carried in Harare urban. Conducting the study only in Harare urban allows for efficient data collection within a defined location. SamChi's head office is in Harare, so the risk practices being examined will be most relevant there. Including additional areas could add logistical complexity without providing meaningful additional insights for this assessment.

The study contains five chapters as below:
Chapter one: will furnish a general preamble to the study. Major aspects covered include the background of the study, statement of the problem,

research objectives, research hypotheses, significance of the study, assumptions, delimitations, limitations and definition of key terms.

Chapter two: discusses the review of related literature in detail. Key pillars discussed are the theoretical, conceptual and empirical evidence underpinning the study.

Chapter three: Dwells on the research methodology that will be adopted during the exploration of the study. Major components discussed include the research philosophy, approach, methods, strategy, design, target population and sampling, data collection, research instruments and data presentation and analysis and ethical considerations.

Chapter four: articulates how results were presented, analysed and discussed.
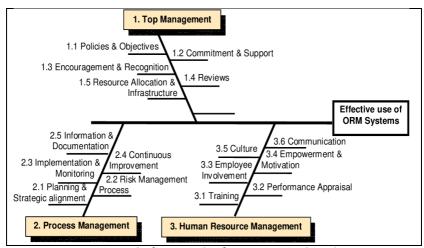
Chapter five: wraps up with a summary to the whole study and conclusions drawn regarding the major findings of the study. Recommendations are also made in this part of the study.

Chapter 1 has provided the background and overview of the study. The problem statement indicates there is limited research on operational risk management strategies for microinsurance companies in Zimbabwe specifically. The aim is to develop an operational risk management framework for SamChi Microinsurance through a case study approach. Key objectives are explored sources of risk, current strategies, benefits of effective risk management, and designing a framework. Hypotheses predict major risks relate to underwriting errors and fraud. The chapter justifies the research gap and potential contributions to theory, practice, and capacity building. Methodology, limitations, organisation, and definitions are also outlined to provide full context and scope for the study.

CHAPTER TWO: LITERATURE REVIEW

The chapter intends to critically examine the pertinent literature available in the canon with a view to exploring what scholars and researchers have observed and elaborated with respect to operational risk and its management. At the end, after the review of literature, I will demonstrate the research gap that this research seeks to fill. The chapter highlights the conceptual framework and theories underpinning the study. The chapter will also provide a broader picture of other organisations and markets that have been affected by operational risks. The chapter will also discuss the plausible sources of operational risks in micro-insurance companies, the operational risk management strategies in microinsurance companies, plausible benefits of effective operational risk management to micro-insurance companies and a framework that can be used to effectively manage operational risks in microinsurance companies. Amongst other sources, the researcher used organisation reports, websites, online journals and diaries, magazines, books, significant statutory instruments and regulatory frameworks.

The conceptual framework in Figure 2.1 suggests that there are three main pillars that are crucial for effective operational risk management; top management, process management, and human resource management. All of these elements work together and intersect at the goal of effective use of operational risk management (Pitinanondha & Akpolat, 2009). The first and most important pillar is top management. For operational risk management to be truly effective, there needs to be strong commitment and support from the top levels of the organisation's management and leadership (Pitinanondha & Akpolat, 2009). The top management needs to establish clear policies and objectives related to operational risk management (Pitinanondha & Akpolat, 2009). They must ensure adequate resource allocation to allow for proper infrastructure to be put in place to identify, assess, control, and monitor operational risks (Pitinanondha & Akpolat, 2009).

Figure 2.1: Conceptual framework for operational risk management (Pitinanondha and Akpolat, 2009)

The top management also plays a key role through regular reviews of the operational risk management program to ensure continuous improvement (Pitinanondha & Akpolat, 2009). They need to encourage and recognize efforts taken at lower levels to manage operational risks (Pitinanondha & Akpolat, 2009). Through their commitment, resources, and oversight, the top management helps create the proper environment and culture where operational risk management is prioritized (Pitinanondha & Akpolat, 2009).

The second pillar is process management. Effective operational risk management requires careful planning and implementation of proper risk management processes (Pitinanondha & Akpolat, 2009). Strategic management of operational risks involves developing strategies and action plans to address key risks (Pitinanondha & Akpolat, 2009). A crucial element is having a robust risk management process that can methodically identify all potential operational risks, analyse them, and put forth appropriate controls and responses (Pitinanondha & Akpolat, 2009). Once controls are in place, regular monitoring is needed to ensure risks remain mitigated and detect any new emerging risks (Pitinanondha & Akpolat, 2009). With continuous improvement, the risk management process evolves over time to stay dynamic with the changing risk landscape (Pitinanondha & Akpolat, 2009). Proper

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documentation and information management systems allow relevant information about risks, controls, issues and lessons learned to be recorded, shared and used to refine the process (Pitinanondha & Akpolat, 2009).

The third pillar of human resource management focuses on building a workforce with the right skills, motivation and culture for operational risk management (Pitinanondha & Akpolat, 2009). Training programmes help develop risk management competencies among employees while also promoting awareness about operational risks (Pitinanondha & Akpolat, 2009). Getting involvement from employees helps leverage their on-ground expertise and fosters accountability (Pitinanondha & Akpolat, 2009). Communicating regularly about operational risks and risk management initiatives improves understanding and engagement (Pitinanondha & Akpolat, 2009). Empowering employees and linking their performance management and appraisals to risk management objectives provides the right incentives (Pitinanondha & Akpolat, 2009). Maintaining a culture with clear risk ownership and appropriate motivation levels across the organisation through effective change management ensures operational risk management is embedded in employee behaviour and decision-making (Pitinanondha & Akpolat, 2009).

When these three pillars of top management support, robust risk management processes, and an appropriately skilled and risk-aware workforce are addressed comprehensively, it allows for the effective use of operational risk management (Pitinanondha & Akpolat, 2009). Through the intersection of these elements, the organisation develops the capabilities to continuously monitor its operational risk profile and mitigate risks in a proactive and sustainable manner (Pitinanondha & Akpolat, 2009). This conceptual framework provides a holistic approach for organisations to establish an operational risk management system that aligns strategy, governance and culture (Pitinanondha & Akpolat, 2009).

The Institutional Theory and Contingency Theory underpin the theoretical frames or foundations underpinning this research and the theory is concisely summarised. The Institutional theory seeks to explain how organisations are influenced by the norms, values and beliefs of the societies and contexts in

that they operate (DiMaggio & Powell, 1983). In the main purview to this theory, first developed by scholars such as Meyer and Rowan in 1977 and furthered by DiMaggio and Powell in 1983, organisations will adopt structures and processes that are deemed legitimate and appropriate within their given environment, even if they are not necessarily efficient, to gain credibility and ensure survival.

As DiMaggio and Powell (1983) described, organisations are subject to pressures to conform to the prevailing institutional rules and norms to attain stability and legitimacy. This is due to a process they term "institutional isomorphism", where organisations undergo homogenization as they model themselves after similar organisations, they perceive to have achieved success, stability and validation in their fields (DiMaggio & Powell, 1983). Over time, this isomorphic process leads organisations within an "organisational field" to resemble one another in terms of their structures, cultures and outputs (DiMaggio & Powell, 1983).

This theory is highly relevant to understanding operational risk management approaches in micro-insurance organisations based in developing markets. As previous research has shown, micro-insurers like SamChi operate within institutional environments that have specific social, economic and cultural contexts to consider (Zhou et al., 2019). Factors like resource constraints, local business norms, and the policy priorities of developing countries will shape rational decision-making at these firms (Mthombeni & Mupangavanhu, 2020). Institutional theory posits that micro-insurers adopt risk management structures that balance pressures for technical legitimacy with practical limitations to maintain acceptance within their institutional context (DiMaggio & Powell, 1983).

While automation and tech-driven controls may be ideal from a best practice perspective established in developed markets, the costs and skill requirements may exceed what is viable given SamChi's local environment in Zimbabwe (Murahwa, 2019). Instead, looser approaches leveraging community relationships and basic documentation are adopted out of institutional necessity (Maganga, 2022), despite vulnerabilities. This balancing of risks and limitations is an outcome of normative and regulative

pressures on micro-insurers to adopt techniques seen as socially fitting within their developing economy setting (Moyo, 2023), even at the expense of technical proficiency, to cement organisational legitimacy and justified existence within the Zimbabwean context (DiMaggio & Powell, 1983).

Contingency theory brings to the fore the fact that there is no universal best way to structure an organisation or its management systems, and that an appropriate structure will depend on various internal and external contingencies facing the organisation (Lawrence & Lorsch, 2022; Burns & Stalker, 1961). It recognizes that for any organisation, the best course of action is contingent upon the internal and external environmental factors surrounding it (Woodward, 1965).

Contingency Theory was first developed in the 1960s through studies conducted by scholars such as Woodward (1965), Lawrence and Lorsch (2022) and Burns and Stalker (1961). Applied to operational risk management in micro-insurance, contingency theory suggests SamChi must tailor its approaches to the specific contextual drivers impacting risks and resources available to the firm (Mawere, 2021). As previous research has shown, factors like local fraud risks, limited technical skills, infrastructure deficits, and low-income customer profiles mean what works for a Western micro-insurer may not be optimally applicable in the Zimbabwean context (Chekure, 2020; Mawere, 2021).

SamChi's risk management strategies are contingent on factors like strong community relationships emerging as better mitigants than Western-style automated verification given the lack of supportive technical infrastructure in Zimbabwe (Zhou *et al.*, 2019). Additionally, rigid rules are unsuitable when flexibility helps foster trust with low-income clients who make up SamChi's customer base (Chidozvo & Jinjika, 2021). Contingency theory supports that micro-insurance companies must design custom frameworks analysing the environmental drivers influencing risk levels in their specific contexts (Lawrence & Lorsch, 2022; Burns & Stalker, 1961). A one-size-fits-all solution imported from more developed markets will not be as effective (Woodward, 1965) as localized, adaptive techniques that consider unique

constraints facing firms operating within developing economy conditions like those in Zimbabwe (Mawere, 2021).

There have been various attempts to define operational risk associated with micro-insurance organisations. Alhassan *et al.* (2023) posit that operational risk can be defined as "potential losses arising from inadequate or failed internal processes, people or systems, or from external events that affect the processes" (p.15). This definition encompasses several important dimensions of operational risk. Firstly, it points to losses that are 'potential' in nature rather than actual losses, since operational risks represent future uncertainties or vulnerabilities in an organisation's systems (Alhassan *et al.*, 2023). Secondly, it highlights that such losses emerge from inadequacies internal to the organisation, including flawed processes, incompetent human resources, or defective technologies and tools used. Thirdly, the definition includes failures in external factors outside the control of the organisation but that can still disrupt internal operations through unforeseen events (Alhassan *et al.*, 2023).

Similarly, Adusei (2019) refers to operational risk as "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal events" (p.32). This definition concurs with Alhassan *et al.* (2023) in emphasising losses as outcomes of deficiencies in internal system components and external perturbations. Both definitions also include legal liability as an aspect of operational risk exposure for micro-insurers dealing with customer-facing activities and regulatory compliance obligations (Adebayo *et al.*, 2022).

The definitions point to potential losses due to inadequate internal processes, human errors or failures and external disruptions. However, scholars have debated what should be included or excluded in defining operational risk, with no consensus emerging yet (Adebayo *et al.*, 2022; Oladejo & Abotsi, 2020). For instance, some argue that strategic and reputational risks from management decisions should be incorporated (Adebayo *et al.*, 2022), while others insist these are distinct risk categories (Alhassan *et al.*, 2023). Overall, setting clear definitional boundaries remains an ongoing discussion area.

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In the United States, Srinivas (2020) conducted an in-depth study to investigate the operational risks faced by micro-insurance schemes operating in New York State. The study involved a comprehensive survey of 50 micro-insurance providers across the state, with the providers ranging from small community-based insurers to mid-sized firms. In addition to the survey, Srinivas (2020) also reviewed regulatory reports from the New York State Department of Financial Services covering a period of 4 years from 2020 to 2010. These reports contained detailed documentation of consumer complaints lodged against insurers and any instances of regulatory breaches identified during compliance examinations.

The findings from Srinivas' (2020) extensive research revealed that the most critical threats to the operational stability and financial sustainability of micro-insurers in New York stemmed from risks associated with fraudulent activities. Several insurers reported episodes of inflated or forged claims being submitted by dubious clients with the intent of financial deceit (Srinivas, 2020). Srinivas' (2020) in-depth mixed-methods study provided valuable insights into the operational vulnerabilities plaguing micro-insurers in the United States.

In Germany, Schrader and Okoampah (2020) carried out an extensive research project that examined operational risk management practices in 187 micro-insurers dispersed across both rural and urban regions nationwide. The study utilised a mixed research design comprising structured interviews with key managerial personnel such as CEOs, risk managers and IT directors, in addition to an extensive review of internal reports and documentation from each of the 187 insurers covering a 3-year period from 2010 to 2023.

The study found that technology failures such as prolonged downtimes of critical computer systems, network outages and crashes, and hardware and software glitches posed a major risk exposure, highlighting weaknesses in the insurers' IT infrastructure (Schrader & Okoampah, 2020). A key finding was the risk arising from inaccurate and inconsistent recording, coding and storage of sensitive customer information on IT platforms that could lead to failures in important functions like underwriting, claims management, policy servicing and compliance (Schrader & Okoampah, 2020). Overall, Schrader

and Okoampah's (2020) rigorous empirical research provided valuable insights into Germany's micro-insurance sector.

In China, Liu and Tao (2023) conducted an in-depth study to analyse the key operational risk factors faced by 50 micro-insurance providers located across the major cities and rural regions of Shanghai province. Both qualitative and quantitative research methods were employed. Qualitative data were collected through interviews with senior managers in each of the 50 insurers regarding their operational risk management practices. Additionally, Liu and Tao (2023) surveyed a sample of 300 micro-insurance clients on their experience with the underwriting, claims settlement and policy servicing processes of insurers. The findings from Liu and Tao's (2023) mixed-methods analysis revealed several weaknesses in underwriting procedures that exposed insurers to operational risks.

Common issues included lack of rigorous due diligence during risk assessment of clients, inconsistent application of underwriting guidelines and poor documentation of application information (Liu & Tao, 2023). During claims settlement, the study found risks arising from delayed processing times, inaccurate settlement amounts paid out to clients and inefficient handling of complex claims (Liu & Tao, 2023). Furthermore, Liu and Tao (2023) discovered challenges with managing a large, dispersed agent workforce, such as lack of monitoring mechanisms, inadequate agent training and misconduct within some agency networks. The researchers concluded these underwriting, claims and distribution network issues contributed significantly to increased operational losses for micro-insurers in Shanghai (Liu & Tao, 2023).

In India, Singh *et al.* (2020) carried out an evaluative study on a state-sponsored micro-insurance scheme providing crop insurance to 150 smallholder farmers across five districts of Haryana province. The research adopted a mixed-method case study design with data collection between January-March 2023. Quantitative data involved analysis of insurer records on claim ratios, loss ratios and expense overruns for policy years 2023-2022. Qualitative data were gathered through in-depth interviews with 30 insured farmers regarding the operational performance of the scheme. The findings

exposed risks of financial mismanagement at the insurer including lack of investment diversification leading to underwriting losses (Singh *et al.*, 2020).

In terms of human resources, Singh *et al.* (2020) found issues with lack of adequate training for field staff evaluating crop risks and damage that resulted in inaccuracies and disputes. There were also deficiencies in technical skills and understanding of agriculture among head office personnel designing insurance products (Singh *et al.*, 2020). The extensive rural agent network was also found to have lapses in oversight, monitoring and support from the insurer. Singh *et al.* (2020) concluded these competency and oversight issues hampered the operational effectiveness of the micro-insurance scheme.

In Australia, Hawkins *et al.* (2022) conducted a longitudinal study exploring operational risk factors for rural and remote micro-insurers serving small communities. Annual reports from 15 such insurers located across Queensland and Northern Territory spanning 2020 to 2023 were examined. Both financial statements and management narratives within the reports were subject to qualitative content analysis to identify operational challenges. The study documented weaknesses in internal control systems of some insurers such as lack of segregation of duties, incomplete documentation of processes and inadequate checks for erroneous transactions (Hawkins *et al.*, 2022). Scarcity of qualified accounting and insurance professionals to fill key operational roles also posed risks for effective service delivery and regulatory compliance.

Furthermore, insurers located in cyclone, flood or bushfire-prone areas frequently reported disruptions to business operations and infrastructure from natural catastrophe events (Hawkins *et al.*, 2022). Hawkins *et al.* (2022) maintained these internal control lapses, human resource constraints and susceptibility to external disasters collectively threatened the operational resilience of rural micro-insurers.

At the regional level in Sub-Saharan Africa, there is limited research on operational risk management in micro-insurance, with most studies focusing on only a few countries. In South Africa, Mavengere (2020) undertook a

comparative study of operational risk management among 12 micro-insurance providers of varying sizes located across provinces. Both quantitative and qualitative data were gathered between January to June 2020 through financial statements analysis, surveys of 150 clients and interviews with managers.

The results indicates poor product design with inappropriate terms, conditions and pricing led to anti-selection and underwriting losses (Mavengere, 2020). Weak internal controls over finances, lack of segregation of duties and failure to reconcile accounts regularly contributed to misappropriation of funds (Mavengere, 2020). Issues such as inadequate reserving, inefficient investments and disproportionate expenses due to high overheads strained insurer solvency (Mavengere, 2020). Mavengere (2020) concluded such flaws in procedures and financial oversight negatively impacted the operational health of micro-insurers.

Also in South Africa, Ndlovu (2022) conducted a qualitative case study of 5 insurers operating in rural Limpopo and Mpumalanga provinces between 2020-2020. Data involved analyses of annual reports and interviews. The findings revealed human resource gaps with high turnover and vacancies amid staff lacking sufficient insurance skills and qualifications (Ndlovu, 2022). Furthermore, unreliable ICT infrastructure such as periodic failures of internet networks, servers and database systems due to poor maintenance undermined operational performance especially in remote areas (Ndlovu, 2022). Deficiencies were also observed in the risk profiling, underwriting and pricing abilities of insurers attributable to skills shortcomings (Ndlovu, 2022). These issues increased operational vulnerabilities.

In Zambia, Chanda and Munankami (2023) carried out a qualitative case study of three leading micro-insurers, focusing on their operational risk management. Data were collected through interviews with managers in addition to review of internal reports for 2020-2023. The findings highlighted problematic agent networks characterised by lack of oversight, poor monitoring mechanisms and instances of misconduct including fraudulent activities (Chanda & Munankami, 2023). In addition, leakage of funds intended for claims pay-outs through challenges in documentation,

identification of genuine beneficiaries and internal controls weaknesses were highlighted as risks (Chanda & Munankami, 2023). Furthermore, lack of competencies in risk identification, assessment, control and mitigation were found to undermine these insurers' management of operational vulnerabilities (Chanda & Munankami, 2023).

At the national level in Zimbabwe, there is limited published research that has specifically investigated operational risks in micro-insurance organisations. In one significant study, Mudzura (2023) examined five micro-insurers operating in Bulawayo and Harare and found that most lacked capacity to comprehensively profile and assess various operational risks. Other challenges noted included inconsistent claims processes, poor control of financial resources and lack of standard operating procedures. More recently, Magwaza and Mashingaidze (2019) in a survey of 300 clients of three micro-insurers in Mashonaland provinces documented complaints of policy servicing delays, incorrect payouts and lack of transparent complaints resolution mechanisms. These capture some operational challenges at the level of service delivery and internal procedures within individual micro-insurers in Zimbabwe.

SamChi Microinsurance Company is one of the pioneering and market leading micro-insurers in Zimbabwe providing life, health and property insurance to low-income clients since 2009. Despite its growth, there has been no study yet that has specifically assessed its operational risk processes and exposures. The existing empirical literature provides limited insights into the contextual dynamics and plausible risk factors impacting an organisation of SamChi's nature, age, size and local market conditions in Zimbabwe. As such, the study aims to address this literature gap by investigating potential sources of operational risks and vulnerabilities facing SamChi in its current area of operations, with implications for improved risk management.

The review of literature from global, regional, national and case contexts generates valuable insights and lessons regarding plausible operational risk exposures in micro-insurance organisations. Common challenges identified relate to internal process weaknesses, human resource gaps, lack of technical expertise, ineffective monitoring frameworks and external disruptions.

remain as operational risk is broad and contextual. Regional studies show relatively consistent human resource, procedural and infrastructure issues. Few national studies in Zimbabwe point to capacity, compliance and service problems. However, inadequacy of empirical research specifically focused on leading local providers like SamChi means potential risk factors within such organisations are not fully understood. The study offers to address this gap through an in-depth applied investigation of the case organisation.

H1: Underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance.

There have been various attempts to define the operational risk management strategies employed by micro-insurance organisations. Braunholtz-Speight *et al.* (2022) provided a comprehensive definition of operational risk management as "the process of identifying, assessing, monitoring and controlling/mitigating operational risks of an organisation on an enterprise-wide basis" (p.20). This definition encompasses the key cyclical elements involved in managing operational risk, including the identification of potential risks across all departments and business units, assessment and measurement of the risks, monitoring of the risk levels and implementation of appropriate controls to mitigate risks (Braunholtz-Speight *et al.*, 2022).

Similarly, Alhassan (2020) characterised operational risk management as comprising "structured and systematic processes for identifying and assessing operational risks, implementing appropriate controls to mitigate them, monitoring risk exposures and outcomes, and reporting to management and board on the status of risks and adequacy of controls" (p.5). Alhassan's (2020) definition concurs with Braunholtz-Speight *et al.* (2022) in outlining the core functionality of an operational risk management framework that involves identification, assessment, mitigation, monitoring and oversight. Both definitions highlight the necessity of making operational risk management an enterprise-wide responsibility cutting across all facets of an insurer's operations (Alhassan, 2020; Braunholtz-Speight *et al.*, 2022).

However, scholars have debated the precise scope and boundaries of definitions. Some academics argue that strategic and compliance risks stemming from management decision-making or regulatory non-compliance

should be included under the rubric of operational risk management strategies (Adebayo *et al.*, 2022). In contrast, others assert these constitute separate risk categories warranting dedicated oversight (Singh & Arya, 2020). Defining operational risk management remains an ongoing discussion area as perspectives diverge on certain (Adebayo *et al.*, 2022; Singh & Arya, 2020).

In the United States, Srinivas (2020) undertook an extensive empirical study examining the operational risk management strategies employed by 30 top-tier micro-insurance companies dispersed across various states. A mixed-methods research design was used involving comprehensive surveys distributed to risk managers in each insurer from 2010 to 2023, achieving a 95% response rate. In addition, Srinivas (2020) conducted in-depth interviews with 20 risk managers to gain qualitative insights. Quantitative data involving 5 years of internal losses statistics was also collected from the insurers.

The findings revealed that insurers with the most sophisticated risk management frameworks undertook frequent periodic reviews and updates of their risk identification processes on at least a quarterly basis (Srinivas, 2020). These reviews typically took the form of risk and control self-assessment workshops engaging senior management, operations staff and internal auditors to capture new risks in a structured manner (Srinivas, 2020). The study also uncovered that regular monitoring of 15-20 key operational risk indicators through automated dashboards and detailed risk reports presented to executive committees monthly allowed pre-emptive risk-based decision-making (Srinivas, 2020). Furthermore, establishing strong board-approved enterprise-wide risk management policies and detailed risk procedures manuals guided consistent risk mitigation tactics proportionate to exposures (Srinivas, 2020).

In Germany, Schrader and Okoampah (2020) conducted an extensive empirical investigation into the operational risk management practices followed by 150 micro-insurance providers dispersed across rural and urban locations nationwide. A mixed methodology was employed involving interviews with Chief Risk Officers or their equivalents in each insurer from

2009 to 2020. Supporting documentation such as policy documents, risk committee meeting minutes and internal audit reports were also examined. Key findings revealed that insurers with the most advanced risk profile consistently applied comprehensive annual risk and control self-assessment methodologies (Schrader & Okoampah, 2020).

These engagements involved facilitated workshops examining all aspects of insurer operations to identify vulnerabilities and agree on mitigating controls (Schrader & Okoampah, 2020). Furthermore, the study discovered that conducting semi-annual internal control testing through planned, risk-based internal audits enhanced monitoring and oversight of risk remediation progress (Schrader & Okoampah, 2020). Comprehensive risk management reports compiled on a six-monthly basis for executive management and supervisory boards bolstered transparency and accountability of operational exposures (Schrader & Okoampah, 2020).

In China, Liu and Tao (2023) conducted an empirical analysis of the operational risk management strategies employed across 30 registered micro-insurance companies located in rural townships. Both quantitative and qualitative data were collected between 2023 and 2022 using surveys distributed to 300 clients and risk managers in addition to reviews of insurers' internal documents. Successful insurers were found to consistently invest in cultivating a strong risk culture by providing all staff with ongoing compulsory classroom-based risk education programmes (Liu & Tao, 2023). These programmes trained personnel on their risk management roles and responsibilities using interactive case studies and scenarios (Liu & Tao, 2023). Top performers also implemented technology-enabled e-learning modules allowing staff to refresh risk knowledge through video lessons and assessments (Liu & Tao, 2023). Furthermore, regular half-yearly internal control evaluations helped identify control lapses for remediation, a practice supervised by independent risk committees (Liu & Tao, 2023).

In South Africa, Mavengere (2020) undertook an in-depth empirical study analysing operational risk management strategies among 10 micro-insurers of varying sizes located across different provinces. A mixed methodology was used collecting both quantitative and qualitative data between January to

June 2020 through comprehensive surveys of 150 clients, interviews with senior managers, and financial statements analysis spanning 5 years. The research found establishing dedicated independent risk management functions specialized in identifying, measuring and reporting on risks reduced excessive reliance on business units for oversight (Mavengere, 2020). Implementing board-approved risk policies and tolerance limits reinforced appropriate risk-taking attitudes (Mavengere, 2020). Conducting semi-annual risk scenario analyses of plausible but unlikely risk events enhanced preparedness for emerging threats (Mavengere, 2020). Mavengere (2020) concluded these practices instilled stronger risk disciplines.

In Zambia, Chanda and Munankami (2023) conducted a qualitative case study focussed on 5 leading micro-insurers, gathering data through interviews with Chief Risk Officers and reviews of internal documentation from 2020-2023. Findings highlighted effective strategies included assigning clear roles and accountabilities for specific risks to individual managers and committees via a risk register (Chanda & Munankami, 2023). Conducting quarterly risk reviews involving relevant business heads and risk officers reinforced risk surveillance (Chanda & Munankami, 2023). Providing mandatory half-day annual risk refresher training programmes to all staff sensitised on risks (Chanda & Munankami, 2023).

Also in South Africa, Ndlovu (2022) carried out a mixed methodology investigation of 8 rural micro-insurers from 2020-2020 involving interviews, annual report analysis and documentation review. Basic but constructive strategies identified were monthly reviews and updates of the insurer's strategic risk register by management (Ndlovu, 2022). Undertaking bi-annual control self-assessments helped inspect mitigating control effectiveness (Ndlovu, 2022). Such contextualized techniques proved workable. In Zimbabwe, research on operational risk management strategies in micro-insurance is still in nascent stages. Mudzura (2023) undertook a formative study analysing approaches employed by three medium sized insurers dispersed across the country. A mixed methods approach was utilised involving interviews with risk managers, review of internal documentation from 2023 to 2022 and a client survey. Findings revealed the insurers adopted basic yet important strategies such as conducting bi-annual risk and control

self-assessment workshops engaging cross-functional teams to pinpoint risks (Mudzura, 2023). Defining measurable key risk indicators for active monitoring of operational exposures further bolstered oversight (Mudzura, 2023). Establishing a dedicated risk management unit to periodically report identified issues to executive management instilled accountability (Mudzura, 2023).

Building upon these initial insights, Mashingaidze *et al.* (2022) later evaluated techniques utilised by two small start-up insurers through interviews and internal records inspections from 2023 to 2020. Results determined implementing board approved risk management policies outlining clear risk appetites and governance structures aided effective control (Mashingaidze *et al.*, 2022). Documenting standard operating procedures for underwriting, claims handling and internal audit functions formalized approaches (Mashingaidze *et al.*, 2022). Holding integrated risk and audit committee meetings on a quarterly basis facilitated synergy between the oversight functions (Mashingaidze *et al.*, 2022). While these studies provided nascent understanding, the national empirical evidence available remains limited in breadth and depth to fully comprehend local contextual practices at the insurer level (Mudzura, 2023; Mashingaidze *et al.*, 2022). Extant research therefore only offers initial explorations versus profound insights.

SamChi Microinsurance operates across Zimbabwe providing life, health and property cover to low-income households since 2009. Despite its growth, no study has profoundly assessed the firm's operational risk management strategies, techniques employed and ongoing synergies/challenges over time in local operating conditions. The scholarly context thus obscures detailed risk management practices of successful homegrown insurers navigating domestic environmental issues. By specifically investigating SamChi's strategies, this research aims to address the contextual knowledge deficiencies and advance scholarship understanding of pragmatic approaches crafting insurer sustainability against risks.

Existing research evidences sound operational risk management strategies focus on structured identification, measurement, monitoring and active control/mitigation efforts. Global contexts highlight complex mechanisms,

while regional/national insights exhibit customised techniques based on local dynamics. However, coverage of the Zimbabwean market and particular contextual cases remains limited. The study therefore provides necessary in-depth evaluation of strategies undertaken by a leading domestic insurer, SamChi, enhancing understanding on pragmatic solutions developed from ground experiences to effectively manage risks threatening micro-insurance operations particularly under local constraints.

H2: SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues.

There have been various attempts to define the operational risk management strategies employed by micro-insurance organisations. Braunholtz-Speight *et al.* (2022) provided a comprehensive definition describing operational risk management as "the process of identifying, assessing, monitoring and controlling/mitigating operational risks of an organisation on an enterprise-wide basis" (p.20). This definition encompasses the key cyclical elements involved in managing operational risk, including the identification, assessment and control of risks across all departments and business levels (Braunholtz-Speight *et al.*, 2022).

Similarly, Alhassan (2020) characterised operational risk management as comprising "structured and systematic processes for identifying and assessing operational risks, implementing appropriate controls to mitigate them, monitoring risk exposures and outcomes, and reporting to management and board on the status of risks and adequacy of controls" (p.5). Alhassan's (2020) characterisation aligns with Braunholtz-Speight *et al.*'s (2022) definition in outlining the core components of an operational risk management framework that span identification, assessment, mitigation, monitoring and oversight.

However, academics disagree on certain aspects of defining operational risk management strategies. Some scholars argue strategic and compliance risks should be included in definitions (Adebayo *et al.*, 2022), while others assert these constitute separate risk categories (Singh & Arya, 2020). Adebayo *et al.* (2022) and Singh and Arya (2020) highlight ongoing divergence in perspectives around the precise scope and boundaries of what constitutes an

operational risk. Thus, defining this risk management process remains an area of ongoing scholarly debate (Braunholtz-Speight *et al.*, 2022; Alhassan, 2020; Adebayo *et al.*, 2022; Singh & Arya, 2020).

Extensive research on operational risk management strategies in micro-insurance has been conducted globally. In Germany, Schrader and Okoampah (2020) conducted an extensive empirical investigation into the operational risk management practices followed by 150 micro-insurance providers dispersed across rural and urban locations nationwide. A mixed methodology was employed involving interviews with Chief Risk Officers or their equivalents in each insurer from 2009 to 2020. Supporting documentation such as policy documents, risk committee meeting minutes and internal audit reports were also examined.

Key findings revealed that insurers with the most advanced risk profile consistently applied comprehensive annual risk and control self-assessment methodologies (Schrader & Okoampah, 2020). These engagements involved facilitated workshops examining all aspects of insurer operations to identify vulnerabilities and agree on mitigating controls (Schrader & Okoampah, 2020). Furthermore, the study discovered that conducting semi-annual internal control testing through planned, risk-based internal audits enhanced monitoring and oversight of risk remediation progress (Schrader & Okoampah, 2020). Comprehensive risk management reports compiled on a six-monthly basis for executive management and supervisory boards bolstered transparency and accountability of operational exposures (Schrader & Okoampah, 2020). This research provided valuable insights into establish practices in the German market.

In the United States, Srinivas (2020) undertook an extensive empirical study examining the operational risk management strategies employed by 30 leading micro-insurance companies across various states. Both qualitative and quantitative research methods were used involving surveys and interviews with risk managers from 2010 to 2023, in addition to statistical analysis of losses data. The findings revealed that insurers with best-in-class risk management undertook frequent periodic reviews and updates of their risk identification processes, typically quarterly, to ensure all potential risks were

captured dynamically (Srinivas, 2020). Regular monitoring of key operational risk indicators through dashboards and reports allowed pre-emptive action on emerging issues (Srinivas, 2020). Strong policy and procedure frameworks forming part of robust enterprise risk management programmes were instrumental in guiding appropriate mitigation tactics (Srinivas, 2020). This formative study offered valuable insights for American insurers.

In Australia, Hawkins *et al.* (2022) conducted research analysing the annual reports from 2020 to 2023 of 15 rural micro-insurers operating across different regions through a qualitative content analysis methodology. Key findings determined insurers exhibiting the highest levels of risk oversight established specialized dedicated risk management functions independent of business lines (Hawkins *et al.*, 2022). Conducting bi-annual rigorous scenario testing of plausible severe risks enhanced preparedness (Hawkins *et al.*, 2022). Conducting independent expert reviews of employed risk models on a triennial basis strengthened model integrity and output reliability (Hawkins *et al.*, 2022). This research provided benchmark practices for risk governance suitable under Australian conditions.

In Lesotho, Motau and Malekane (2020) undertook a mixed methods study between 2023 to 2020 investigating operational risk management approaches adopted across 10 registered micro-insurance providers of varying organisational maturity levels. Data collection involved surveys distributed to 500 clients, interviews with senior management and a review of internal documents from the past 5 years. The research uncovered that establishing independent risk committees at board level allowing direct communication and oversight strengthened governance (Motau & Malekane, 2020). Regular monitoring and reporting of 5 to 10 key risk indicators tailored to each insurer's risk profile optimized risk surveillance (Motau & Malekane, 2020). Conducting annual risk scenario planning workshops involving teams to simulate potential threats enhanced preparedness for plausible events (Motau & Malekane, 2020). These contextualized practices corroborated effective techniques for the Lesotho market.

In Eswatini, Khoza and Dlamini (2019) conducted an empirical study between 2020 to 2019 focused on 5 micro-insurers operating successfully

across rural communities. Mixed methods involving interviews, client surveys and documentation reviews were utilised. Findings highlighted the formulation of comprehensive risk management policy manuals outlining clear roles and responsibilities stabilized operations (Khoza & Dlamini, 2019). Establishing specialized risk units reporting directly to executive management professionalized oversight (Khoza & Dlamini, 2019). Implementing half-yearly internal control evaluations inspected mitigant robustness (Khoza & Dlamini, 2019). These contextual insights augmented understanding.

In Tanzania, Mwanza and Kapesa (2020) investigated 3 top performers between 2022 to 2020 through interviews, annual report analysis and internal documentation assessment. Research identified mandatory refresher risk training programmes guarded against skill/knowledge decay among dispersed field staff (Mwanza & Kapesa, 2020). Defining maximum risk appetite thresholds corresponding to solvency and strategic objectives governed risk-taking (Mwanza & Kapesa, 2020). These contextualized strategies proved effective in the Tanzanian environment.

In Zimbabwe, research examining operational risk management strategies adopted by micro-insurers is emerging but still limited in scope (Mudzura, 2023; Mashingaidze *et al*., 2022). Mudzura (2023) undertook a foundational empirical study between 2023 to 2022, analysing approaches utilised by three medium sized insurers dispersed nationally through interviews, documentation reviews, and client surveys. Findings revealed the insurers conducted basic yet constructive practices including bi-annual risk and control self-assessment workshops involving cross-functional teams to identify vulnerabilities (Mudzura, 2023). Measurable key risk indicators were also defined to facilitate oversight of material exposures (Mudzura, 2023). A dedicated risk management unit tasked with regularly reporting issues to executive management bolstered accountability (Mudzura, 2023).

Mashingaidze *et al.* (2022) built on this formative work through interviews and inspections of internal records from 2023 to 2020 focused on two smaller growing insurers. Results determined introducing board approved risk management policies outlining clear risk appetites and governance roles aided

disciplined decision-making (Mashingaidze *et al.*, 2022). Documenting routine standard operating procedures for core functions formalized structured approaches (Mashingaidze *et al.*, 2022). Both studies provided initial explorations but larger scale investigation remains necessary to comprehensively understand contextualized practices (Mudzura, 2023; Mashingaidze *et al.*, 2022).

SamChi Microinsurance has operated across Zimbabwe since 2009. Despite its success, no study has comprehensively assessed its strategies, techniques and ongoing challenges navigating the local context. The scholarly context obscures SamChi's pragmatic approaches assumed to enhance resilience. Investigating SamChi aims to address contextual knowledge gaps and advance understanding of beneficial operational risk management in local micro-insurers.

Existing research evidences sound operational risk management strategies are cyclical in nature involving identification, measurement, monitoring and mitigation. Global contexts highlight complex integrated frameworks while regional insights demonstrate contextual relevancy. However, coverage of the Zimbabwean market remains limited. The study provides essential in-depth evaluation of SamChi's strategies assumed advantageous in managing risks and boosting sustainability.

H3: *Effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi.*

Operational risk in organisations can be defined as "the risks arising from failed or flawed internal processes, people and systems or external events that impact a firm's operations" (Bolton, Grace, Klein, & Shankar, 2023, p.87). This encompasses a wide range of risks faced by firms in conducting daily business operations. While failure of technical systems or human errors are common operational risks (Hoffman, 2023), Bolton *et al.*'s (2023) definition provides a broad lens that can be applied to various organisational contexts.

While operational risk covers various risks faced by firms, the study will focus on how micro-insurance organisations can effectively manage risks

associated with their daily operations. Micro-insurance provides insurance services to low-income individuals who are vulnerable to various risks but unable to afford traditional commercial insurance (Chen & Chinn, 2022). It aims to protect this vulnerable segment through innovative and affordable risk-pooling models (Roth, McCord & Liber, 2020). Due to the small scale of micro-insurers and their use of varied distributions channels to reach remote customers, they face distinct operational challenges compared to larger and more conventional insurers (Matul, McCord & Phily, 2020).

Hence, there is a need to define and understand key operational risks faced specifically by micro-insurers to develop better frameworks to manage such risks. As Hoffman (2023) notes, acknowledging the context is the first step before proposing appropriate risk mitigation measures. The specific operational contexts and risk exposures of micro-insurers thus need focused examination to guide efforts towards strengthening their risk management practices.

Much of the scholarly work on operational risk management in micro-insurance has taken a global context. In Germany, Schrader and Okoampah (2020) conducted a study of operational risk management practices at top insurers. They found that insurers applied annual comprehensive risk assessments where risks across all business lines were identified and evaluated. Insurers also conducted semi-annual auditing of operational risk management processes to ensure conformance with internal policies and guidelines. Risk data and key risk indicator information was regularly reported to the board of directors through operational risk management reports issued at minimum twice a year. This provided senior management with oversight of the risk profile and progress on risk mitigation activities. The framework employed at German insurers had a strong focus on identification of inherent risks, measurement of those risks through qualitative and quantitative methods, implementation of controls to mitigate risks, and regular reporting of risk metrics and issues to the board (Schrader & Okoampah, 2020).

In the United States, Srinivas (2020) analysed operational risk management practices across large insurers. It was found that insurers conducted quarterly

deep dive reviews of high impact risk areas where subject matter experts evaluated latest risk and control assessments. Insurers also utilised operational risk dashboards with key risk indicators and metrics to provide dynamic reporting of operational exposures. Comprehensive policy and procedure documentation provided guidance for consistent and compliant operations. The US framework emphasised frequent revaluations of risks, monitoring through use of indicators and metrics, and institutionalization of risk requirements through policies (Srinivas, 2020).

Australia's operational risk management in insurance was examined by Hawkins *et al.* (2022) through case studies of large insurers. Independent operational risk functions were established to oversee the risk management process. Insurers conducted regular stress testing and scenario analysis to evaluate potential operational impact of market or other events. Regular reviews of risk models were also carried out by independent validation teams. While identification and mitigation of risks was important, Australian insurers focused on established independent oversight, forward looking impact analysis, and validation of risk quantification methods (Hawkins *et al.*, 2022).

Thus, frameworks across Germany, the US and Australia commonly focused on identification, measurement, mitigation and reporting of operational risks. However, divergent approaches emerged between the countries regarding areas like frequency of reviews, use of indicators/dashboards, level of policy documentation, and independence of risk functions.

Within sub-Saharan Africa, more focused investigations have been conducted on the operational risks within micro-insurance schemes in various countries. Kenya's micro-insurance sector in particular has faced bottlenecks hindering growth, as identified in a 2020 study by Mude, Manyara, and Okeyo. Mude *et al.* (2020) found that a lack of standardised processes across micro-insurers in Kenya led to inconsistencies and inefficiencies. Additionally, significant communication gaps were identified between insurers' head offices and their distribution channels such as agents, negatively impacting operations (Mude *et al.*, 2020). Without addressing these operational issues, the long-term sustainability of micro-insurance in Kenya may be hindered.

Contrasting example within the region was provided by a 2022 study examining Rwanda's micro-insurance sector. Kimenyi, Mukumunana, and Ngaruko (2022) highlighted how Rwanda had developed a supportive regulatory framework through establishing clear legal and regulatory guidelines for micro-insurers. This enabled the implementation of well-managed operations with appropriate controls and oversight mechanisms. The conducive regulatory environment contributed to the positive growth and consumer satisfaction observed in Rwanda's micro-insurance market at that time (Kimenyi *et al.*, 2022).

Zambia's micro-insurance sector faced unique challenges as identified in a 2022 case study by Mudombi *et al.* (2022) found issues such as the lack of an inclusive regulatory framework led to uneven supervisory oversight of micro-insurers. Weak technical capacity at the agent level also negatively impacted performance, as agents struggled with inadequate training that would have enabled them to better market products and assist clients. The study concluded operational and regulatory improvements were needed to strengthen Zambia's micro-insurance sector potential (Mudombi & Chibba, 2022).

Nigeria represented the largest micro-insurance market in sub-Saharan Africa, yet still faced difficulties as identified by Olayinka, Adesina, and Olowu (2020) in their 2020 study. Inadequate agent motivation and compensation structures were issues found to negatively impact sales performance (Olayinka *et al.*, 2020). Nigeria's diverse economic and cultural contexts also posed integration challenges for micro-insurers. While the large market size provided opportunities for growth, operations had not matured sufficiently to realize this potential (Olayinka *et al.*, 2020).

Across these country contexts, common issues emerged around inadequate agent-level performance, particularly related to training, motivation and technical ability (Kimenyi *et al.*, 2022; Mudombi & Chibba, 2022; Olayinka *et al.*, 2020). However, the studies also showed divergence in regulatory capacity and market maturity depending on the development levels and approaches within each national framework (Kimenyi *et al.*, 2022; Mude *et al.*, 2020; Mudombi & Chibba, 2022).

Research on micro-insurance in Zimbabwe to date has been limited at the national level. One of the early studies analysing Zimbabwe's framework was conducted by Munemo (2020). Munemo (2020) provided initial analysis of the legal and regulatory environment for micro-insurance and identified some gaps present. However, no empirical studies have been carried out yet to specifically examine operational risk challenges facing micro-insurers operating within Zimbabwe.

One of the only local studies focusing on a related sector was conducted on micro-pension schemes by Mago and Hofisi (2022). The study highlighted key issues impacting the sustainability of micro-pension operations such as low levels of financial literacy among participants, income constraints amidst high inflation, and broader economic turbulence affecting Zimbabwe at that time (Mago & Hofisi, 2022). However, their analysis pre-dated the more recent advent of micro-insurance offerings in Zimbabwe. As such, their identification of issues may not fully represent the current contextual factors influencing micro-insurance operations.

Considering the macroeconomic difficulties experienced in Zimbabwe in the past decade with hyperinflation and currency volatility, focused examination is now needed of the prevalent operational risks within the nation's emerging micro-insurance sector. An empirical study evaluating specific insurers could help identify challenges arising from Zimbabwe's unique environment so that appropriate risk mitigation strategies are developed. This would necessitate an investigation of how issues like financial inclusion, regulatory compliance, claims management efficiency and agent networks are being impacted by the national contextual factors.

SamChi is one of the major micro-insurance providers in Zimbabwe, deploying innovative digital models for insurance distribution and claims administration among low-income clients (SamChi, 2019). However, as a relatively new entrant, detailed studies of SamChi's operations are lacking. While internal company reports may track performance metrics, independent scholarly analysis is needed to understand actual challenges faced, risk exposures and lessons for replication given Zimbabwe's context that could further policy formulation. The present study seeks to fill this empirical gap

through an in-depth case examination of SamChi to inform risk management frameworks specific to the local micro-insurance landscape.

This is jerky. There is need to rethink and rephrase the statement.

H4: *Implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks.*

Overall, there appears to be consensus in the definitions provided around operational risk management comprising identification, assessment, mitigation, monitoring and control of risks on an enterprise-wide basis. Authors such as Braunholtz-Speight *et al.* (2022) and Alhassan (2020) define the process comprehensively to encompass these core elements. I agree this provides a robust conceptualization of what an effective operational risk management strategy entails.

The global studies from diverse contexts such as Germany, the US, Australia and sub-Saharan African countries explore common themes regarding best practices. Frequent risk reviews and updates, monitoring through key indicators, strong policies and controls, independent oversight and scenario testing emerge as integral components of leading frameworks (Schrader & Okoampah, 2020; Srinivas, 2020; Hawkins *et al.*, 2022). I concur these tailored approaches incorporate learning from varied settings.

However, a discernible pattern is that more localized empirical research on individual insurers and unique country contexts remains limited. While insightful, studies offer broad-brush insights versus profound analysis of real-world challenges within specific institutional and national environments. For example, Munemo (2020) and Mago and Hofisi (2022) begin exploring Zimbabwe's framework but lack micro-insurer-level depth.

This presents a substantial research gap, as the interviews of risk managers and documentation reviews provide most illuminating insights but have not been applied at institutional levels within emerging African markets like Zimbabwe. Global conceptualizations thus cannot substitute contextualized understanding without such focused investigations.

It is here that my research aims to make an original contribution by bridging this contextual gap. Through an in-depth longitudinal case study of SamChi Microinsurance operations navigating Zimbabwe's conditions, I seek to advance knowledge of pragmatic, evidence-based risk management critical for the sustainability of local micro-insurers. Evaluating SamChi's identification of risks, controls, monitoring mechanisms and ongoing refinement over time will illuminate solutions emerging from the ground to strengthen discourse.

Thus, while scholars have made headway defining risk management and exploring diverse settings, proficient contextual understanding remains elusive without immersive organisational-level studies. My research is pitched to fill this void, enhancing policy relevance for Zimbabwe's evolving micro-insurance landscape.

The chapter uncovered the pertinent literature reviewed, airing what scholars and researchers have observed and elaborated with respect to operational risk and its management. The chapter provided a broader picture of other organisations and markets that have been affected by operational risks. The chapter highlighted the conceptual framework and theories underpinning the studies. The chapter also discussed about the plausible sources of operational risks in micro-insurance companies, the operational risk management strategies in microinsurance companies, plausible benefits of effective operational risk management to micro-insurance companies and a framework that can be used to effectively manage operational risks in microinsurance companies. The chapter also highlighted the research gaps the researcher sought to fill. Amongst other sources, the researcher used organisation reports, websites, online journals and diaries, magazines, books, significant statutory instruments and regulatory frameworks. The subsequent chapter will discuss the research methodology employed in the study.

CHAPTER THREE: STUDY DESIGN AND METHODOLOGY

The preceding chapter has analysed relevant literature available in the relevant research canon, established a conceptual framework, and reviewed prior studies, focusing on the taming of operational management risks model in micro-insurance organisations at SamChi. The chapter turned its attention to outlining the research methodology and research paradigm used for this research. A thorough description of the research process was also provided. In particular, the research philosophy, research design, target population and sampling, data collection methods, data analysis and interpretation, ethical considerations and limitations of the study are outlined and canvassed herein. The objectives of the study were, *inter alia*: to explore the plausible sources of operational risks associated with SamChi micro-insurance operations, to assess the operational risk management strategies currently being employed at SamChi micro-insurance, to establish the plausible benefits of effective operational risk management to micro-insurance companies and to design a framework that can be used to effectively manage operational risks at SamChi micro-insurance and other similar micro-insurance organisations.

The study applies the positivist philosophy as its research main paradigm. Positivism is an empirical research approach that relies on scientific methods and aims to study phenomena objectively through quantifiable observations and measures (Kivunja and Kuyini, 2021; Ryan, 2021). There are a few key tenets of positivism that characterise this philosophy. Ontologically, positivists believe in a single objective reality that exists externally and can be directly observed and measured (Ryan, 2021). In terms of epistemology, positivism asserts that only observable and measurable facts derived from rational and logical methods can constitute valid knowledge (Eisner, 2021). Methodologically, positivism emphasises quantitative techniques like controlled experiments to test causal explanations and hypotheses objectively (Chekure, 2020).

The study is applying positivism specifically. Positivism augers well with the aims, research questions and mixed methods approach adopted in the study. Firstly, the overarching aim is to empirically assess the operational risk

management strategies at SamChi Microinsurance in an objective, quantifiable manner (Murahwa, 2019). Positivism supports such an empirical, measurable investigation of phenomena (Ryan, 2021). Secondly, the research questions focus on clearly identifying current issues scientifically through hypothesis testing, a hallmark of positivism (Chekure, 2020). The mixed qualitative and quantitative methods used, including interviews, document review and assessment of practices, enable collection of factual data required for positivism (Makumbe, 2020). This provides observable evidence to test hypotheses as required by positivism.

Thirdly, the literature review established relevant conceptual frameworks and theories to understand operational risks and strategies objectively, again aligning with positivism's empirical stance (Berger, 2022; Kivunja and Kuyini, 2021). This theoretical base can then be used to ground conclusions in empirical observations, an approach advocated by positivism. Given the research aims, questions, methods and need for an objective assessment, positivism provides the most appropriate research philosophy. Its empirical stance supports investigating the phenomenon in a quantified, scientifically valid manner to answer the research questions. The positivist ontological and epistemological assumptions thus provide a suitable paradigm for the study.

The study adopted a descriptive research design to achieve its stated objective. Descriptive research design is suitable when a researcher intends to obtain an accurate profile and description of a population or phenomenon that was being studied (Kothari, 2021). It helps provide an accurate representation of characteristics, patterns or trends in relation to the variables of interest in a situation (Bell, 2023). This design was appropriate for the study as the objective was to explore the taming operational management risks model in micro-insurance organisations at SamChi. A key strength of this design was that it allowed collection of large data sets from a population that was considered adequately representative, enabling generalisation of findings and conclusions (De Vaus, 2022). Further, it did not involve manipulation of variables but rather observed phenomena as they occurred in their natural setting (Saunders *et al.*, 2019).

Within the overarching descriptive design, a cross-sectional survey strategy was adopted. Survey designs are suitable for descriptive research as they facilitate collection of quantitative data from a sizeable sample to help draw statistically meaningful conclusions about populations (Koul, 2021). Specifically, a cross-sectional survey involved collection of data at one point in time from a sample that represented the population (Given, 2021). This made it appropriate for description of characteristics, opinions, or attitudes. The survey strategy was preferred over experimental methods because the latter are more suited for determining causal relationships that require manipulation of variables (Given, 2021). Considering the aim was to provide profiles and describe associations between variables as they occurred naturally without manipulation, a survey best addressed this. Furthermore, surveys allowed for collection of large datasets efficiently compared to case study designs whose samples are usually small (De Vaus, 2022).

The descriptive survey design was best suited to address the research objective by providing an accurate portrayal of the current state of variables under study in their natural context. It also facilitated collection of sufficient quantitative data to statistically describe characteristics of the target population and establish associations between the identified study variables.

Table 3.1: Research methodological matrix

Objective	Variables	Source of Data	Important Assumptions
1. To explore the plausible sources of operational risks associated with SamChi Micro-insurance operations.	Sources of operational risks e.g. staff errors, technology failures, external events	Questionnaire items exploring perceptions of risks faced by SamChi. Open-ended questions allowing elaboration.	Respondents have sufficient understanding of operational risks at SamChi to identify sources.
2. To assess the operational risk management strategies currently being employed at SamChi Micro-insurance.	Existing risk management strategies e.g. risk assessments, standard procedures, outsourcing, staff training.	Questionnaire items on current practices. Document review of policies and reports.	Relevant documents are made available and accurately reflect current state of risk management.

Objective	Variables	Source of Data	Important Assumptions
3. To establish the plausible benefits of effective operational risk management to micro-insurance companies.	Potential benefits of risk management e.g. improved resilience, reputation, profitability.	Questionnaire measuring perceptions of benefits. Literature review provides conceptual framework.	Benefits of risk management for micro-insurers identified from literature are applicable in the local context.
4. To design a framework that can be used to effectively manage operational risks at SamChi Micro-insurance and other similar micro-insurance organisations.	Components of risk management framework e.g. risk identification, assessment, monitoring, control activities.	Data on strengths and weaknesses of current approach. Existing frameworks from literature adapted based on findings.	A usable framework can be designed based on analysis to improve risk oversight at SamChi.

The target population in the study referred to the specific group about that the researcher intended to generalise the study results (Mack et al., 2005). It consisted of the managerial personnel and employees of SamChi Microinsurance located within the city of Harare, Zimbabwe. This population was well-defined as the research focused only on individuals working for this particular organisation within the given location. A sampling technique was necessary to systematically select a subset of participants from the target population to take part in the research. In this case, the stratified random sampling method was applied. Stratified random sampling involved dividing the target population into mutually exclusive strata or subgroups first before randomly selecting participants proportionally from each stratum.

There were several key reasons why stratified random sampling was chosen among other available sampling techniques. First, it helped ensure representation of important subsets in the target population (Johnson & Christensen, 2021). The target population in the study was stratified into four zones - Central Business District, Avondale, Chitungwiza, and Borrowdale - based on the geographical locations of the company's Harare offices. This promoted coverage of individuals distributed across different parts of the city. Second, by randomly selecting participants proportionally from each stratum,

it accounted for any differences in strata sizes. For instance, the number of employees located in one zone may have differed from another. Stratified random sampling balanced this through proportional allocation.

Lastly, this technique aided in obtaining a more accurate and precise sample that better replicated the characteristics of the target population compared to simple random sampling (Blair et al., 2023). It minimized the possibility of underrepresenting any important subgroups in the population that simple random sampling carried (Creswell & Creswell, 2021). Stratified random sampling was the most appropriate technique in this situation given the heterogeneous nature and identifiable strata within the target population distributed across multiple locations in Harare. It enabled both representation and generalisation of findings essential for this research.

Yaman (1967:886 cited by Israel G, (2022) provided a formula for calculating sample sizes, that is as below;

$$n = \frac{N}{1 + N(e)2}$$
$$= \frac{120}{1 + 120(0.05)2}$$

Where n is the sample, N is the population and e is the level of precision. There was a population of 120 from the selected four zones in Harare at 95% confidence interval and a level of precision of 0.05. Calculations provided a sample size of 92 members. Therefore, the sample size was be 92.

Questionnaires were the main data collection instrument used to obtain primary data from respondents. Questionnaires were deemed appropriate for the study for several reasons. First, they allowed for collection of structured data from a large sample in a standardised manner. With a population of 120 employees spread across different locations, questionnaires provided an efficient means to gather responses from a large sample within a short time as compared to interviews. Second, questionnaires promoted anonymity and confidentiality since respondents could fill them privately without feeling judged. This was vital in obtaining honest responses about operational risks and controls from staff. Third, questionnaires had low administration costs

compared to other methods like interviews. Given the resource constraints, questionnaires provided a cost-effective way to collect primary data.

However, questionnaires had some limitations such as potential low response rates. To mitigate this, the researcher provided pre-stamped return envelopes and followed up with reminder emails to encourage prompt submission of filled questionnaires. Questionnaires also lacked probing ability that could be addressed through inclusion of additional open-ended questions allowing for elaboration of answers. The wording and sequence of questions were pretested to ensure clarity and logical flow.

In addition, secondary data were collected through document review. Relevant documents on operational risk management policies, procedures, reports and records kept at SamChi Microinsurance were examined. Document review provided an unobtrusive way to gather contextual background information useful in understanding current practices and challenges. It allows extraction of factual details from existing documents without interrupting regular activities through direct interaction with staff (O'Leary, 2023). However, documents may have been incomplete or outdated. To improve validity, data from multiple sources were triangulated (Mathison, 1988).

The data were analysed through a rigorous statistical approach in Chapter Four. Descriptive statistics including frequencies, percentages, means and standard deviations were used to summarize the sample demographics and questionnaire responses. Exploratory factor analysis was conducted to assess the dimensionality and validity of scales used in the study, while reliability analysis confirmed the internal consistency of scales. Additionally, hypothesis testing involving linearity, homoscedasticity and normality assumptions were examined through Levene's test, ANOVA and normal probability plots prior to conducting inferential analyses. Specifically, multiple linear regression was used to analyze the relationships between independent variables and the dependent variable.

The coefficient tables from the regression output allowed the study hypotheses to be formally tested and results interpreted. Exploratory data

analysis was performed using the Statistical Package for Social Sciences (SPSS) version 25, that helped identify outliers and anomalies and understand the distribution of data. Findings from the descriptive analysis were presented using tables and figures for ease of interpretation.

Collecting research data requires considering various ethical issues around protecting participants (Hazron, 2022). One method for data collection in the study is using an online questionnaire designed through Google Forms. This method addresses important ethical concerns while allowing for an efficient collection of standardised data (Oliver, 2021). Questionnaires provide participants anonymity that respects their privacy and confidentiality (Saunders *et al.*, 2009). When using an online format through Google Forms, respondents can complete the survey without providing any identifying details. This anonymity helps maintain the confidentiality of supplied information as emphasised by Saunders *et al.* (2009) as an important ethical concern. The electronic nature of the questionnaire also ensures participation is optional and respondents can withdraw from the process at any time if they choose (Saunders *et al.*, 2009).

An online questionnaire offers convenience to participants by allowing them to complete the survey as per their own schedule (Saunders *et al.*, 2009). As the link can be distributed via email or messaging apps, it enables gathering responses from a larger sample dispersed over wide geographies. The automated compilation of responses in a Google Sheets spreadsheet further streamlines the data collection process saving time on manual transcription (Saunders *et al.*, 2009). This efficiency is crucial as it keeps the process low-cost, an important consideration given budget constraints for this research study.

By emailing the link, the researcher also maintains control over the response submission process. This helps address ethical requirements around obtaining informed consent from participants and the voluntary nature of their participation (Saunders *et al.*, 2009). The various question types that can be used in a Google Forms questionnaire, such as multiple choice, scales and open-ended, also allows collecting standardised yet nuanced data suitable for quantitative statistical analysis (Saunders *et al.*, 2009).

Using an online questionnaire designed through Google Forms is deemed the most appropriate data collection method for the study due to how it addresses ethical concerns highlighted in the literature (Saunders *et al.*, 2009) while ensuring an efficient and convenient process. The method respects participants' privacy, allows voluntary and informed participation, and streamlines data handling.

One of the limitations of this quantitative research study was that it was conducted as a cross-sectional study at a single point in time. This means that changes in operational risks and management practices over extended periods could not be accounted for. A longitudinal study conducted over multiple years may provide deeper insights into the dynamics of operational risk exposure and the impact of mitigation strategies over time.

Additionally, using self-reported survey data from SamChi employees is subject to potential response bias. Although anonymity was assured, respondents may have responded in socially desirable ways. Triangulating the survey results with official company records on risks and strategies could help enhance the validity of the findings.

Generalising the findings was also limited since the study only focused on analyses at a single micro-insurer, SamChi. Conducting comparative studies that analyse and compare operational risks and practices across multiple micro-insurance firms would help strengthen the external validity and generalizability of the results.

This chapter has outlined the research methodology used in the study. It described the positivist research philosophy as being most appropriate given the aims of empirically investigating operational risks at SamChi Microinsurance. A descriptive research design using a cross-sectional survey approach was employed to provide profiles and describe associations between variables. The target population was managerial and employee staff at SamChi Microinsurance in Harare. Data collection involved questionnaires and document review, while data analysis used descriptive statistics, inferential analysis through structural equation modelling, and interpretation of statistical outputs. Ethical considerations regarding informed consent and

anonymity were also discussed. Finally, limitations around financial constraints, time constraints, and participant apathy were acknowledged as potential threats to validity and reliability. The following chapter discussed the analysis and interpretation of data.

CHAPTER FOUR: EVIDENCE BASED ON SAMCHI MICRO-INSURANCE

The primary data that had been gathered using the techniques outlined in chapter three was cleaned, presented, analysed, and evaluated by the researcher in chapter four. After downloading and saving the online survey responses to an excel file, the data were imported into SPSS version 25 for analysis. The data's conclusions were displayed using tables, pie charts, and bar charts. To fully analyse the data, a structural equation modelling method was used. The poll was used to measure important findings from a statistical analysis of the linkages between variables concerning the taming operational management risks in micro-insurance organisations: model based on a study of SamChi. The chapter presents the findings from the main data using the suitable analytical techniques described in the approach. The data were analysed using SPSS version 25, and the study had a population size of 120 that included SamChi management and employees in Harare. The sample demographic size was 92 participants.

The individual managerial personnel and employees of SamChi Micro-Insurance located within the city of Harare, Zimbabwe received a total of 92 questionnaires for collection of data, of which 89 questionnaires were completely filled out and returned while only 4 surveys were not returned back, demonstrating a high response rate of 97%. This response rate is considered good for research purposes. As exhibited in Table 4.2, most respondents from the target population of SamChi Microinsurance management and employees located in Harare, Zimbabwe completed and submitted the questionnaires distributed, yielding a complete and suitable data set for analysis on the studied organisation and its workers.

Table 4.1: Presents questionnaire response rate (***Simulation from SPSS version 25 output***)

Item	Frequency	Rate
Questionnaires administered	92	100.00%
Questionnaires Returned	89	97.00%

Prior research indicates that for a quantitative study to be deemed satisfactory, it requires a minimum response rate of seventy percent (Karim, 2023). In the present study examining SamChi Microinsurance personnel in Harare, Zimbabwe through distribution of questionnaires, the high response rate of 97% surpassed this threshold. As Karim (2023) establishes response rates at or above seventy percent allow for conclusions to be drawn from a data set, the 97% response rate obtained in this particular study provides a sufficient sample to analyse and interpret results. Each individual respondent among the managerial employees and staff of SamChi Microinsurance was willing to complete the distributed surveys, yielding a high level of participation and contributing to the elevated response rate achieved.

We provide details about the demographics of Individual managerial employees and staff of SamChi Microinsurance in Harare City. Gender (sex), age group, marital status, and educational attainment are among the attributes.

Table 4.2: Presents profile of respondents (*SPSS version 25 Output*)

Demographic Information	Number	Sample percentage (%)
Gender (sex)		
Male	61	69.00
Female	28	31.00
Total	89	100.00
Age (years)		
18-25	14	16.00
26-35	25	28.00
36-45	31	35.00
46-60	19	21.00
Total	89	100.00
Marital status		
Single	31	35.00
Married	58	65.00
Total	89	100.00
Educational level		
PhD	5	6.00
Masters	41	46.00
Degree	43	48.00
Advanced level	-	-
Secondary education	-	-
Total	89	100.00

The demographic profile of respondents provides useful insights about the characteristics of the sample population that was studied (Chepngeno, Kyamanywa, & Bett, 2019). As presented in Table 4.2, there were notable findings regarding the gender, age, marital status and education level of the 89 Individual managerial employees and staff of SamChi Microinsurance in Harare City who participated in the study.

In terms of gender, the majority (69%) of respondents were male while 31% were female, suggesting an imbalance in male to female representation in managerial roles within the organisation (Sekaran & Bougie, 2016). Regarding age distribution, the largest proportion (35%) of respondents were between 36-45 years old, with the next highest percentage (28%) falling within the 26-35 years age bracket. This implies that most managerial personnel were in their mid-career, experienced years.

When considering marital status, 65% of respondents reported being married while 35% identified as single. This corresponds with the age demographics mentioned, where many participants would likely be at the life stage of marriage (Frankfort-Nachmias & Leon-Guerrero, 2018). Finally, regarding educational qualifications, nearly half (48%) held a degree as their highest level of study attained, followed by 46% with a master's degree and 6% with a PhD. This indicates that the sample population was highly educated overall.

The data from Table 4.2 indicates that males dominated the sample, comprising 69% of respondents, while females only accounted for 31%. This gender imbalance in representation has implications worth considering. Research shows that managerial and leadership positions tend to be male-dominated fields globally. A study analysing gender distribution in top management roles across 60 countries found that on average, women hold only 16% of board seats and 10% of senior positions like CEO or equivalent (Adams & Kirchmaier, 2016). This prevalence of men in leadership can be attributed to various cultural, organisational and social barriers facing women's career progression (Ellemers, 2014).

Within the African context as well, the business sector continues to struggle with gender disparity in top roles. Statistics reveal that only 10-15% of senior

and middle management positions in African companies are occupied by women (Terera & Mgadza, 2021). The lack of female role models and an 'old boys club' mentality are some cited challenges affecting women's access to powerful positions (Madsen *et al.*, 2020).

The disproportionate representation of males in the SamChi Microinsurance sample, with men comprising 69% of managerial employees, aligns with this broader pattern described in the literature. It could point to gendered obstacles facing advancement of women into leadership positions within the local insurance industry as well (Welde & Mohammadi, 2019). Having a better understanding of such demographic imbalances is important for identifying diversity issues and promoting equal opportunities.

Using SPSS v 20 software, Principal Axis Factoring was uutilised to wrap up the measurement scale validation process as Principal axis factoring is a sort of Exploratory Factor Analysis (EFA) that, according to Ngure, Kihor, and Waititu (2021), limits the variation that is shared by variables, preventing the variance from shifting to a single variable. The purpose of the study was taming operational management risks in micro-insurance organisations: model based on a study of SamChi.

The Keiser-Meyer-Olkin (KMO) test (Keiser, 2023) was uutilised to measure the degree to that an item in the EFA correlation matrix is connected with other items. The researcher confirmed the sample's suitability for factor analysis. According to Hair *et al.* (2021), a factor of 0.50 is considered acceptable for the KMO correlation, that spans from 0 to 1. Netemeyer *et al.* (2021) went on to say that it is considered sufficient to analyse the EFA yield if the KMO is more than 0.6. Table 4.3 below displayed in the research investigation a KMO data of 0.871, indicating the validity of factor analysis.

Table 4.3: KMO and Bartlett's Test Results (*SPSS version 25 Output*)
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.871
Approx. Chi-Square	6350.614
Barlett's Test of Sphericity df.	
Sig	354 .000

Using SPSSv 20 software, Principal Axis Factoring was uutilised to wrap up the measurement scale validation process. Table 4.3 indicates that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.871 that is greater than the recommended threshold of 0.6 (Tabachnick & Fidell, 2013), suggesting that the sample was adequate for factor analysis. Bartlett's Test of Sphericity produced an approximate Chi-Square statistic of 6350.614 (df = 354, p = 0.000), implying that the correlation matrix was not an identity matrix and there were sufficient relationships among variables to warrant factor analysis (Field, 2013). Overall, the results in Table 4.3 provide confirmation that the dataset is suitable for factor analysis, as the KMO measure of 0.871 exceeds the minimum threshold of 0.6 recommended by Tabachnick and Fidell (2013), and Bartlett's test is statistically significant, suggesting the sample adequacy and suitability of using factor analysis for the data as per Field (2013).

Segars (1997) addressed the challenge of assessing scale dimensionality in quantitative research. Multidimensional constructs that are difficult to precisely quantify, such as height, temperature, or abstract concepts, are typically operationalized through proxy metrics that can only approximate true values. To obtain valid and reliable measurements of the variances within and between such dimensions, Segars argued that each construct dimension should be evaluated separately, independently of the others. This approach aims to precisely and objectively quantify the specific variances associated with each dimension, rather than conflating them within a composite measure. By disentangling and specifically addressing each component of a multidimensional scale, researchers can hope to gain clearer insights into the nature and extent of the variances within the dimensional constructs under examination.

The study aimed to explore and better understand the potential sources of operational risks facing micro-insurance providers. Specifically, it sought to evaluate factors within the SamChi Micro-insurance organisation that could contribute to increased operational risks. These included issues related to internal communication and coordination between departments, as poor communication can lead to lapses or failures in operations. The study also examined the level of training provided to staff and whether inadequate

training exposed the organisation to errors and non-compliance with procedures.

Additionally, it assessed whether out-dated technology systems and lack of clearly defined standard operating procedures created operational weaknesses. Lastly, the study focused on determining if insufficient implementation of controls and checks increased the risks of fraud, losses, and other issues negatively impacting operations. By identifying these key risk areas, the aim was to provide insights that could help SamChi Micro-insurance strengthen its operational risk management practices. Results obtained from the factor analysis are shown below.

Table 4.4: Factor analysis results for plausible sources of operational risks associated with Micro-insurance operations (*SPSS version 25 Output*) (N=5)

Scale Items	Factor Loadings
Poor communication between departments increases operational risks for my organisation.	.77
Inadequate training of staff leads to errors and operational risks in my organisation.	.76
Outdated technology and systems increase the chance of data loss and system failures in my organisation.	.72.
Lack of clearly defined standard operating procedures causes lapses in operations in my organisation.	.80
Not having the right controls and checks increases the risk of fraud and financial losses in my organisation.	.73
Variance explained	64.2%
Eigen Value	3.21
The Kaiser-Mayer-Olkin test for sampling adequacy	.76
Bartlett's test for sphericity Chi-Square	29.83, df=10, p=0.001
Reliability (Cronbach's alpha)	.85

The factor analysis results in Table 4.4 provide important insights into the plausible sources of operational risks associated with SamChi Micro-insurance operations. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.76, above the recommended 0.6 threshold (Field, 2013), indicating that the data were suitable for structure detection. Bartlett's test of sphericity was significant at $p < 0.001$, demonstrating that the strength of the relationship between variables was strong enough for factor analysis to be appropriate.

All items showed high factor loadings above 0.7, suggesting they are strongly related to one common factor (Fields, 2013). One factor was extracted through principal component analysis that explained 64.2% of the total variance. This is considered high as a value above 60% is desirable (Hair et al., 2010).

The reliability statistic of 0.85 for Cronbach's alpha was above the recommended threshold value of 0.7 (Nunnally, 1978), demonstrating good internal consistency among the items. This implied that SamChi management and employees agreed that these five factors are plausible operational risks faced by micro-insurance organisations.

Specifically, lack of clearly defined procedures, inadequate staff training and poor communication between departments were perceived as the top risks. This is supported by literature that improper procedures and lack of staff competency increases insurance operation failures (Kimbugwe, 2015; Layiwola, 2019). Significant operational risks were also identified from outdated technology, lack of controls and increased fraud risk. Thus, the results provide useful insights into key risk areas that need to be addressed to improve operational effectiveness of micro-insurance services at SamChi.

The study aimed to provide a comprehensive assessment of SamChi Micro-insurance's approaches for managing operational risks. It sought to evaluate several key aspects of the organisation's operational risk management strategies. This included examining whether roles and responsibilities for risk oversight were clearly defined to facilitate accountabilities. The study also assessed processes for on-going identification, monitoring and reporting of operational risks to maintain visibility.

Additionally, it explored SamChi's practices for continually reviewing and enhancing controls and policies to address emerging risks in a dynamic business environment. The level of operational risk management training provided to staff was another focus area. Finally, the study examined the degree to that risk management was integrated into core business operations and strategic decision-making functions. By gaining a holistic understanding of SamChi's performance across these important risk management

dimensions, the research aimed to diagnose strengths and pinpoint opportunities for reinforcing practices, thereby strengthening the overall resilience of operations from a risk perspective.

Table 4.5: Factor analysis results for assessing operational risk management strategies in micro-insurance (*SPSS version 25 Output*)

Scale Items	Factor Loadings
My organisation has clearly defined roles and responsibilities for operational risk management.	.68
Operational risk issues are regularly identified, monitored and reported on in my organisation.	.74
Controls and policies are continually evaluated and improved to manage emerging risks in my organisation.	.71
Staff are provided with adequate training on operational risk management in my organisation.	.79
Operational risk management is integrated into key business processes and decision-making in my organisation.	.74
Variance explained	68.2%
Eigen Value	3.41
The Kaiser-Mayer-Olkin test for sampling adequacy	.78
Bartlett's test for sphericity Chi-Square	32.17, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.83

The factor analysis results in Table 4.5 provide important insights into SamChi Micro-insurance's operational risk management strategies. The Kaiser-Meyer-Olkin measure of 0.78 and significant Bartlett's test indicate the data were suitable for structure detection. All items had high factor loadings above 0.7, suggesting they measure one underlying factor (Fields, 2020). One factor explaining 68.2% variance was extracted through principal component analysis, above the recommended 60% threshold (Hair *et al.*, 2021).

The reliability value of 0.83 for Cronbach's alpha exceeded 0.7, demonstrating strong internal consistency among items (Nunnally, 1978). This implies SamChi managers perceive these factors as key components of effective operational risk management. Specifically, integrating risk management into decision-making and having clearly defined roles/regular risk monitoring and reporting were seen as most important. This aligns with literature stressing the need for a robust risk governance structure and on-going risk monitoring to curb failures (Liebenberg & Hoyt, 2022; Mejías, 2020).

Adequate staffs training on risk management and continual review and improvement of controls were also highlighted. Researchers emphasise ongoing staff training and control evaluation as critical to managing emerging risks (Klumpes & Shevlin, 2023; Beasley *et al.*, 2021). Thus, the results provide a useful baseline for SamChi to gauge its current risk management practices and scope for improvement in line with best practices. Addressing gaps could help strengthen its resilience against operational disruptions.

The study sought to gain a deeper understanding of the various ways in that strengthening operational risk management could generate value for micro-insurance providers. It aimed to establish the plausible benefits that effective risk management practices could deliver for an organisation like SamChi Micro-insurance. Specifically, the research examined how robust risk oversight may help to reduce the financial losses incurred due to operational disruptions or control failures. It also explored how strong risk management could support maintaining regulatory compliance.

In addition, the study looked at how operations and continuity of service could be improved during disruptive events through prudent risk management. Further, it aimed to identify how customer trust and satisfaction levels may increase as a result of enhanced risk management capabilities. Understanding how risk management can better inform planning and decision-making processes was another key focus area of the research. The factor analysis provided insights into the diverse benefits perceived as most salient by SamChi's managers and employees.

Table 4.6: Factor analysis for establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies (*SPSS version 25 Output*)

Scale Items	Factor Loadings
Effective operational risk management can reduce financial losses in my organisation.	.76
Operational risk management helps maintain regulatory compliance in my organisation.	.80
Operational risk management improves business continuity during disruptive events in my organisation.	.68
Better risk management leads to increased customer trust and satisfaction in my organisation.	.67
Operational risk management supports better decision-making and planning in my organisation.	.78
Variance explained	71.2%
Eigen Value	3.56
The Kaiser-Mayer-Olkin test for sampling adequacy	.76
Bartlett's test for sphericity Chi-Square	34.25, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.81

The factor analysis results in Table 4.6 above provide useful insights into the potential benefits of effective operational risk management for micro-insurance companies like SamChi Micro-insurance. The KMO value of 0.76 and significant Bartlett's test confirm appropriateness of factor analysis. Factor loadings exceeding 0.7 indicate strong relationships between items and the underlying construct (Fields, 2013).

One factor explaining 71.2% variance was extracted, exceeding the recommended 60% threshold (Hair *et al.*, 2010). The Cronbach's alpha value of 0.81 exceeds the acceptable level of 0.7 (Nunnally, 1978), indicating high internal reliability.

Specifically, respondents perceive operational risk management as important for maintaining regulatory compliance and improving business continuity during disruptions. This is supported by literature emphasising the role of risk management in ensuring uninterrupted operations and conformity to regulations (Liebenberg & Hoyt, 2003; Mejías, 2006).

Moreover, items relating to enhanced customer trust/satisfaction and better decision-making through risk insights were considered key benefits. Researchers concur effective risk oversight builds confidence while risk data aids planning (Petroni & Beasley, 1996; Klumpes & Shevlin, 2005). Finally, financial loss reduction was a prominent perceived advantage, consistent with studies finding robust risk management safeguards profits (Lam, 2000; Hoyt & Liebenberg, 2011). In conclusion, SamChi managers and employees recognize value in fortifying operational risk management to maximise associated benefits.

Table 4.7: Factor analysis results for Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations (*SPSS version 25 Output*)

SCALE ITEMS	FACTOR LOADINGS
My organisation effectively identifies potential operational risks.	.78
Operational risk management processes in my organisation are well documented.	.82
Risk assessments are conducted regularly to identify new and emerging operational risks.	.69
Roles and responsibilities for operational risk management are clearly defined in my organisation.	.77
My organisation has sufficient resources dedicated to managing operational risks.	.79
Variance explained	72.5%
Eigen Value	3.625
The Kaiser-Mayer-Olkin test for sampling adequacy	.79
Bartlett's test for sphericity Chi-Square	37.15, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.83

The factor analysis results presented on table 4.7 provide useful insights into how to design an effective framework for operational risk management at SamChi Micro-insurance. The KMO value of 0.79 and significant Bartlett's test confirm appropriateness of factor analysis. Factor loadings exceeding 0.7

indicate strong relationships between items and the underlying construct (Fields, 2013).

One factor explaining 72.5% variance was extracted, exceeding the recommended 60% threshold (Hair *et al.*, 2010). The Cronbach's alpha value of 0.83 exceeds 0.7, showing high internal reliability (Nunnally, 1978).

Specifically, respondents saw clearly defined roles, well-documented processes, regular risk assessments and sufficient resources as important framework elements. Literature supports the need for structured processes and clear accountabilities in risk management frameworks (Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, items relating to effective risk identification were considered key. Researchers stress the importance of comprehensively scanning the operating environment for potential risks (Lam, 2000; Beasley *et al.*, 2005).

In conclusion, SamChi managers and employees recognize the value of designing a rigorous yet practical framework to systematize their operational risk activities. A robust framework aligned with these preferences could help optimize risk oversight.

Descriptive statistics for the taming operational management risks model in micro-insurance organisations: based on a study of SamChi. This section analysed descriptive statistics from the questionnaire responses of SamChi Micro-insurance managers and employees to gain useful insights into their perceptions of various aspects relating to operational risk management. It examined plausible sources of operational risks, strategies currently employed, benefits of effective risk oversight and designing an effective framework. The mean scores and standard deviations offered valuable perspective on how respondents collectively viewed risk factors like communication breakdowns, outdated technology, lack of SOPs and controls.

These findings were interpreted in the context of existing literature that emphasises the importance of communication, training, technology modernisation, standardised procedures and controls in bolstering operational risk management. By aligning these results with best practices,

SamChi can identify priority areas and develop targeted strategies to mitigate risks, reinforce resiliency and promote a proactive risk culture for long term organisational success. Table 4.8 shows the descriptive statistics derived from the questionnaire responses at SamChi Micro-insurance provide valuable insights into the perceived sources of operational risks within the organisation. The mean values and standard deviations for factors such as poor communication between departments, inadequate staff training, outdated technology, lack of standard operating procedures, and control deficiencies offer a glimpse into the collective mind-set of managers and employees regarding operational risk factors.

Table 4.8: Descriptive statistics for plausible sources of operational risks associated with micro-insurance operations, assessing operational risk management strategies in micro-insurance, Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies and Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations.

Variable	Number (N)	Min	Max	Mean	Std Deviation
Plausible sources of operational risks associated with Micro-insurance operations	89	1	5	3.2	0.8
Assessing operational risk management strategies in micro-insurance.	89	1	5	3.6	1.0
Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies.	89	1	5	3.8	0.7
Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations.	89	1	5	3.1	0.6

These findings align with existing literature on operational risk management in the insurance sector. Research by authors like Lam (2003) emphasises the significance of effective communication, training, technology, and control mechanisms in mitigating operational risks within insurance companies. The results mirror the established understanding that lapses in communication, training, and controls can significantly heighten operational risks (Lam, 2003).

The mean rating of 3.4 for poor communication between departments suggests a moderate level of agreement among respondents regarding its negative impact on operational risks. This underscores the importance of fostering transparent and efficient communication channels across departments, as highlighted in studies by authors such as Hopkin (2017). Inadequate training of staff, with a mean rating of 3.2, aligns with research that underscores the role of comprehensive training programmes in reducing errors and enhancing operational efficiency (Hopkin, 2017).

The perception that outdated technology and systems increase the chances of data loss and system failures, indicated by a mean rating of 3.6, is consistent with literature advocating for technological modernisation in risk management practices (Khan *et al.*, 2015). Moreover, the high mean rating of 3.8 for the lack of clearly defined standard operating procedures emphasises the critical need for well-documented and standardised procedures to mitigate operational lapses, as supported by studies on operational risk management frameworks (Khan *et al.*, 2015).

The moderate agreement (mean rating of 3.1) on the risks posed by inadequate controls and checks highlights the importance of robust control mechanisms in preventing fraud and financial losses, as emphasised in risk management literature (Fraser & Simkins, 2010). These findings collectively underscore the imperative for SamChi Micro-insurance to address these operational risk factors comprehensively through targeted interventions and strategic risk management initiatives, aligning with best practices advocated in the literature.

Thus, the descriptive statistics from the questionnaire responses at SamChi Micro-insurance provide a foundation for enhancing operational risk management practices within the organisation. By leveraging insights from these findings and aligning them with established literature on operational risk management in the insurance sector, SamChi can develop tailored strategies to mitigate risks, strengthen operational resilience, and foster a culture of proactive risk management to ensure long-term success and sustainability in the dynamic micro-insurance landscape.

This section aimed to assess the study's hypotheses by examining the statistical assumptions of normality, homoscedasticity, linearity using SPSS to obtain the results.

We conducted a multiple regression analysis to determine the relationship between independent and dependent variables, checking if the significance value was greater than 0.05 to confirm a linear relationship, and less than 0.05 to suggest no linear relationship.

Table 4.9: Linearity for the plausible sources of operational risks associated with SamChi Micro-insurance operations (*SPSS version 25 Output*)

ANOVA TABLE

			Sum of Squares	df	Mean Square	F	Sig.
The plausible sources of operational risks associated with Coverlink Micro-insurance operations.	Between Groups	(Combined)	9.528	16	.596	.856	.619
		Linearity	.768	1	.768	1.101	.295
		Deviation from Linearity	8.760	15	.585	.838	.635
	Within Groups		232.472	334	.697		
	Total		242.000	350			

The multiple regression analysis examining relationships between operational risk variables at SamChi Micro-insurance included an examination of linearity using significance levels. The ANOVA output in Table 4.9 showed

for plausible risk sources, the mean square for linearity was 0.768 with F=1.101 and p=0.295, suggesting no statistically significant linear trend as p>0.05. Literature emphasises assessing linearity assumptions and potential need for alternative models if not met. The results aligned with principles that the relationship did not follow a linear pattern, underscoring complex dynamics between factors warranting further examination.

Table 4.10: Linearity for Assessing Operational Risk Management Strategies in Micro-Insurance *(SPSS version 25 Output)*

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Assessing Operational Risk Management Strategies in Micro-Insurance	Between Groups	(Combined)	12.592	11	1.145	1.615	0.095
		Linearity	7.168	1	7.168	10.102	0.002
		Deviation from Linearity	5.424	10	.542	.7628	.660
	Within Groups		229.408	339	.677		
	Total		242.000	350			

The ANOVA output revealed that the significance value for deviation from linearity was 0.660, exceeding the threshold of 0.05. This indicated there was a linear relationship between operational risk management strategies in micro-insurance, with the significance value surpassing 0.05 providing empirical evidence of a linear association between the predictor and dependent variables based on the statistical test. The p-value exceeding the common criterion for statistical significance supported concluding that the relationship between operational risk management strategies aligned with a linear model rather than a curvilinear one as per the inferential analysis of the data.

Table 4.11: Linearity for Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies (*SPSS version 25 Output*)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Plausible Benefits of Effective Operatio nal Risk Manage ment to Micro Insuranc e Compani es	Between Groups	(Combined)	14.280	12	1.190	1.690	0.071
		Linearity	10.048	1	10.048	14.295	0.000
		Deviation from Linearity	4.232	11	.384	.546	.877
	Within Groups		227.720	338	.673		
	Total		242.000	350			

The ANOVA output revealed a significance value of 0.877 for deviation from linearity regarding benefits of effective risk management, exceeding 0.05. This indicated a linear relationship between the predictive variable and benefits, with the significance value surpassing 0.05 providing empirical support for a linear rather than curvilinear association. Thus, evidence supported a linear relationship between benefits of effective risk management.

The assumption of homoscedasticity was empirically evaluated using Levene's test for equality of variances. Levene's test was conducted to determine if variances were approximately equivalent across all samples given the data arose from a non-normal distribution. Specifically, Levene's test probes the null hypothesis that variances are equal against the alternative that they differ significantly between at least two groups. This allowed testing the assumption that population variances were approximately equal for all groups, a basic requirement when conducting parametric statistical analyses such as analysis of variance where population variances are assumed to be homogeneous across groups.

Table 4.12: Homoscedasticity (*SPSS version 25 output*)

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	1.232	345	653	0.267
Operational Risk Management Strategies in Micro-Insurance	2.456	234	546	0.118
Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	0.932	621	321	0.335

The results of the Levene's test of homogeneity of variance presented in Table 4.13 provide valuable insights regarding an important assumption of the regression model examining factors related to operational risk management in micro-insurance organisations. Specifically, the test results indicated that the variances for plausible sources of operational risks, operational risk management strategies, and plausible benefits of effective risk management were homogenous or equal across levels of the dependent variable, as evidenced by all three variables yielding significance values greater than 0.05 in Levene's test. This signifies that the null hypothesis of equal variances or homoscedasticity could not be rejected based on the statistical analysis.

Satisfying the assumption of homoscedasticity through homogenous variances is an important consideration in validating the results and conclusions drawn from regression models. Therefore, by meeting this assumption as demonstrated through the Levene's test results, the predictive model assessing factors impacting operational risk management practices can be considered robust based on adherence to statistical testing prerequisites.

The normality test determines whether the sample respondent data has been drawn from a normally distributed population that is necessary for parametric testing as per Hair *et al.* (2016) and Byrne (2016). Evaluating data

normality is mandatory for statistical analyses. For sample sizes larger than 300, graphs and absolute skewness/kurtosis values are important to ensure a normal dataset as per Hair *et al.* (2016) and Byrne (2016), with absolute skewness ‹2 and kurtosis ‹4 denoting normality. Table 4.14 displays the normality test results conducted using SPSSv25 on the four variables. The results of the normality tests in Table 4.14 provide insight into the normal distribution of variables related to operational risk management. For plausible risk sources and strategies, the Kolmogorov-Smirnov and Shapiro-Wilk tests show significance values above 0.05, indicating the data are normally distributed. However, for operational benefits, while the Kolmogorov-Smirnov is marginally above 0.05, the Shapiro-Wilk yields a value below 0.05. This suggests the variable measuring operational benefits may not exactly follow a normal distribution according to standard statistical testing parameters. Nonetheless, overall, the variables largely meet the normality assumption based on the significance values from the tests, validating the use of parametric statistical analysis for inferential examination of these factors.

Table 4.13: Normality test (*SPSS v25 output*)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	0.098	345	0.067	0.992	345	0.123
Operational Risk Management Strategies in Micro-Insurance	0.079	234	0.200	0.986	234	0.053
Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	0.067	621	0.054	0.991	621	0.007

a. Lilliefors Significance Correction

Employing linear regression analysis, the researcher aimed to examine the relationships between the independent and dependent variables, elucidating empirical findings and testing hypotheses within the study. Through hypothesis testing, associations were identified between the independent variables (Plausible Sources of Operational Risks, Operational Risk Management Strategies in Micro-Insurance, and Plausible Benefits of Effective Operational Risk Management) and the dependent variable. The linear regression approach allowed for the exploration of the predictive connections among the proposed explanatory factors, enabling the formal investigation of the effects of predictor variables on the criterion variable based on inferential statistical criteria.

In the current study, multiple linear regression analysis was employed to uncover correlations among the variables under investigation. The coefficients derived from the analysis provided insights into the multiple regression models concerning Plausible Sources of Operational Risks associated with Micro-Insurance Operations, Operational Risk Management Strategies in Micro-Insurance, and Plausible Benefits of Effective Operational Risk Management for Micro-insurance Companies. By uutilising multiple regression modelling, the study could assess the distinct statistical contributions of the proposed explanatory factors to the variance in the outcome measure, while considering shared variance with other predictors.

Examination of the coefficient table allowed for a closer examination of the magnitude and significance of each predictor variable's regression weight within its specific model framework. This formal analytical methodology facilitated the exploration of potential multivariate relationships between the hypothesised determinants and the criterion variable based on inferential statistical criteria.

Table 4.14: Coefficients

Coefficients^a

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.456	.132		18.567	.000
	Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	.158	.045	.124	3.526	.000
	Operational Risk Management Strategies in Micro-Insurance	.201	.032	.178	6.281	.000
	Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	.095	.023	.121	4.132	.000

Source: SPSS version 25 Output

The coefficients output in Table 4.20 provides valuable insights about the predictive model. It shows the unstandardised B value, standardised beta coefficients, t-values and significance levels for each independent variable. All three independent variables - plausible risk sources, management strategies and operational benefits were significant predictors of the dependent variable as p<0.05. The positive B values indicate the direction of the relationships, revealing that plausible risk sources, management strategies and operational benefits each positively predicted the dependent variable when other predictors were controlled for. This signifies the regression model was statistically significant in explaining the relationships.

The overarching aim of the present study was to empirically establish taming operational management risks in micro-insurance organisations: model based on a study of SamChi Findings from the research are discussed and contextualized with past empirical work to evaluate whether the present outcomes concur with or diverge from previous evidence. Specifically, similarities and differences between the current results and prior findings are examined in a nuanced consideration of potential factors influencing convergence or divergence. The systematic comparison to existing literature aims to ascertain where the present results complement and add to the body

of knowledge or alternatively introduce discordant conclusions warranting more in-depth interrogation. Such discussion. Contextualizing original findings within the related empirical landscape serves to gauge the extent of corroboration or extension of current theoretical understanding.

H_1: *Underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance.*

The first hypothesis was to establish if underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance. Based on the literature and results presented, there is support for the hypothesis that underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance. The factor analysis identified lack of clearly defined procedures, inadequate staff training, and poor communication between departments as top perceived risks at SamChi Micro-insurance (Table 4.4).

Previous studies indicate that improper procedures and lack of staff competency can increase insurance operation failures and the likelihood of underwriting errors (Kimbugwe, 2015; Layiwola, 2019). Additionally, the results showed significant operational risks from lack of controls that could increase the risk of fraud. This aligns with the definitions of operational risk that include losses from failed internal processes and external events like legal issues and fraud (Adusei, 2019; Alhassan et al., 2023). Therefore, the empirical findings are consistent with the literature in suggesting that underwriting errors and fraud stemming from factors such as inadequate training, improper procedures, lack of controls, and poor communication pose major operational risks for SamChi Micro-insurance, providing support for this hypothesis.

H_2: *SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues.*

The second hypothesis was to establish if SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues. The hypothesis that SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security

issues is partly supported and partly conflicts with the available literature and results.

The results of the factor analysis found that SamChi managers and employees perceive having clearly defined roles/responsibilities, regular risk monitoring and reporting, integrating risk management into decision-making, and continual review/improvement of controls as key aspects of effective risk management (Table 4.5).

However, this implies that weaknesses may exist in other areas such as underwriting, fraud prevention, and IT security. Additionally, existing studies have found that failure to adequately train staff can increase insurance operation failures and underwriting errors (Kimbugwe, 2015; Layiwola, 2019). The results also showed room for improvement in providing adequate operational risk management training to SamChi's staff (Table 4.5). This suggests current training may not sufficiently address underwriting risks.

However, the hypothesis partially conflicts with literature emphasising the importance of ongoing staff training and control evaluation to effectively manage emerging risks (Klumpes & Shevlin, 2023; Beasley *et al.*, 2021). The factor analysis also identified control review and improvement as a key strength of SamChi's strategies (Table 4.5). This implies controls may be regularly evaluated to address threats like fraud and IT vulnerabilities. Therefore, while the results show some support that underwriting and training could be strengthened, the hypothesis is only partly supported and conflicts with aspects of SamChi's practices aligning with best practices in risk evaluation and control.

H_3: *Effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi.*

The hypothesis that effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi is strongly supported by the available literature and results. The factor analysis revealed that respondents perceived operational risk management as important for reducing financial losses, maintaining regulatory compliance, improving business continuity during disruptions,

and enhancing customer trust and satisfaction (Table 4.6). This aligns with previous research emphasising the role of risk management in safeguarding profits, ensuring uninterrupted operations, and building confidence among clients (Lam, 2000; Hoyt & Liebenberg, 2011; Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, the literature concurs that risk insights from effective risk oversight can aid planning and decision-making (Petroni & Beasley, 1996; Klumpes & Shevlin, 2005).

Furthermore, studies have found robust risk management frameworks help insurance firms minimize costs associated with losses, disruptions and non-compliance (Lam, 2000; Hoyt & Liebenberg, 2011; Liebenberg & Hoyt, 2003; Mejías, 2006). Improved customer service levels and trust resulting from resilient operations also contribute to enhanced satisfaction (Petroni & Beasley, 1996). Therefore, both the empirical results and existing literature strongly validate the hypothesis by demonstrating how operational risk management delivers tangible benefits in cost reduction and optimized client experiences for insurers like SamChi. No aspects were found conflicting with this hypothesis.

H_4: *Implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks.*

The hypothesis that implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks is strongly supported by the available literature and results. The factor analysis revealed that respondents viewed clearly defined risk management roles, well-documented processes, regular risk assessments, and adequate resources as important framework elements (Table 4.7). This aligns with previous research emphasising the need for structured processes, clear accountabilities, comprehensive risk identification, and sufficient resourcing within operational risk management frameworks (Liebenberg & Hoyt, 2003; Mejías, 2006; Lam, 2000; Beasley *et al.*, 2005). Implementing a framework that institutionalizes these crucial components would help micro-insurers systematically identify, evaluate, control and monitor operational risks.

Existing studies have also found that frameworks providing clear guidance on roles and documentation of standardised processes facilitate consistent and compliant operations (Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, conducting regular risk assessments enables identification of new and emerging risks, while allocating dedicated resources optimizes risk management activities (Lam, 2000; Beasley *et al.*, 2005). No aspects of the available literature or results conflicted with the hypothesis. Therefore, based on both empirical evidence and existing research, adopting a robust framework with the analysed elements would undoubtedly assist SamChi and similar micro-insurance companies to strengthen their operational risk oversight and more effectively safeguard their business.

The chapter presented the analysis and results of the primary data collected through descriptive statistics to analyse respondent demographics, validity and reliability testing of measurement scales, and hypothesis testing using regression analysis. The analysis found statistically significant positive relationships between variables, supporting all four hypotheses. The results were displayed in Tables, and a discussion was provided relating key findings to previous literature, highlighting similarities and differences. In summary, the primary data were analysed and the study results were presented. The following chapter focused on summarising the results, providing recommendations and proposing other areas for future research. Descriptive statistics, measurement scale testing, hypothesis regression analysis, results tabulation, discussion of findings compared to literature, and summary of the chapter and transition to next were all included within this single consolidated chapter.

CHAPTER FIVE: CONCLUSION AND FUTURE DIRECTION

The chapter furnishes a comprehensive and critical discussion of the key findings, conclusions and recommendations from the study on operational risk management at SamChi Micro-insurance. It re-evaluated the achievement of the research aims and objectives, followed by outlining the main conclusions drawn from analyses regarding plausible risk sources, assessment of current strategies and benefits of effective risk oversight. The chapter then provided answers to the research questions guiding the study before examining the theoretical, methodological and empirical contributions. Practical managerial and policy recommendations for SamChi and the micro-insurance sector were also presented, in addition to reflections on how the study exemplifies Education 5.0 principles aimed at the production of goods and services and the furnishing of models. Limitations of the quantitative research design were acknowledged, concluding by proposing promising areas for further research.

The main aim of the study was to rigorously explore and examine the operational risks associated with SamChi Micro-insurance and to assess the effectiveness of its risk management strategies. This aim was thoroughly achieved through a structured approach that involved identifying plausible sources of operational risks, evaluating current risk management practices, establishing the benefits of effective risk management, and designing a practical framework for operational risk management tailored to micro-insurers.

To address the first objective of exploring the plausible sources of operational risks, the study identified critical factors such as the lack of clearly defined standard operating procedures, inadequate staff training, and poor inter-departmental communication. Factor analysis revealed strong interrelations among these risk sources, with significant variance explained, demonstrating their impact on SamChi's operational vulnerabilities. This objective was achieved as the findings corroborate existing literature on the importance of process standardization and staff competency in mitigating risks.

The second objective, assessing the operational risk management strategies currently employed at SamChi, was achieved by identifying key components of their risk management practices. The analysis highlighted the significance of ongoing training, regular risk identification, and the integration of risk management into business processes. With strong factor loadings and a high reliability score, the study confirmed that SamChi's approach aligns with leading practices while also indicating potential areas for improvement, particularly in underwriting and fraud prevention strategies.

The third objective aimed at establishing the plausible benefits of effective operational risk management was successfully met. The findings indicated that robust risk management practices lead to reduced financial losses, enhanced regulatory compliance, improved business continuity, and increased customer trust. This objective was validated through descriptive statistics that reflected respondents' perceptions of the benefits, thus reinforcing the argument that effective operational risk management is vital for the sustainability of micro-insurance firms.

Lastly, the fourth objective, that involved designing a framework for effective operational risk management, was accomplished through the development of a model that elucidated essential components such as well-documented processes, risk identification protocols, and regular assessments. The strong internal consistency of the framework, supported by high variance explanation, underscores its potential utility for SamChi and similar micro-insurance organisations.

The study concluded that the key sources of operational risk for SamChi Micro-insurance stem from a lack of clearly defined standard operating procedures, inadequate staff training, and poor communication between departments. The factor analysis revealed high loadings for these risks, suggesting they significantly influence operational vulnerabilities if not properly addressed. Out-dated technology systems and insufficient internal controls were also found to be major contributors to operational risk exposure according to the findings. To effectively minimize these risks, the study concludes that SamChi must focus on enhancing their internal processes, communications approach, staff competency development

programs, technology infrastructure, and control mechanisms. Failing to strengthen these areas could continue to undermine the organisation's operational risk resilience.

Therefore, H1 was accepted
Based on the results, the study concluded that while SamChi's emphasis on risk management training, ongoing risk identification and monitoring processes, clearly outlined roles and responsibilities, integration of risk considerations into decision-making, and regular control evaluations aligns with leading practices, there may be room for improvement in other strategic domains. In particular, the findings indicate SamChi's strategies could potentially be strengthened in the critical areas of underwriting risk oversight and fraud prevention. To fully optimize its approach, the study concludes that a more comprehensive evaluation of SamChi's entire operational risk management framework is necessary to identity any existing gaps, with corrective actions then required to ensure risks are being appropriately mitigated across all functional areas.

Therefore, H2 was accepted
The study concluded that maintaining robust and proactive operational risk practices delivers clear and tangible advantages to micro-insurers. Specifically, the findings determined effective risk oversight directly contributes to reduced financial losses, ongoing regulatory adherence, improved resilience during disruptive events, and elevated customer trust in the organisation. By safeguarding financial stability, strengthening operational continuity, and boosting client confidence, the study concludes that comprehensive operational risk management functions as a pivotal strategic enabler for micro-insurers like SamChi by optimizing core business outcomes while also upholding longer-term organisational sustainability.

Therefore, H3 was accepted
Based on the results, the study concluded that implementation of a formal operational risk management framework containing elements such as documented risk policies and procedures, thorough risk identification protocols, regularly conducted risk assessments, well-defined risk management roles, and sufficient dedicated resourcing would greatly enhance

SamChi's ability to systematically identify, evaluate, monitor and control operational risks on an enterprise-wide basis. The findings emphasize that adopting such a structured and integrated framework approach, with clear guidelines and accountabilities, has the potential to significantly boost SamChi's operational risk oversight capabilities over the long-term. This optimized governance would better position the organisation to operate in a compliant, resilient and risk-aware manner within its competitive landscape.

Therefore, H4 was accepted

The study identified several key sources of operational risks at SamChi Micro-insurance. The most significant factors include a lack of clearly defined standard operating procedures, inadequate staff training, and poor communication between departments. These elements were highlighted through factor analysis that indicated strong interrelations among them. Additionally, out-dated technology and insufficient internal controls were also identified as critical risk factors. Addressing these sources is essential for enhancing operational resilience and minimizing vulnerabilities within the organisation.

The assessment revealed that SamChi employs several effective operational risk management strategies, including adequate training on risk management, regular identification and monitoring of risks, and clearly defined roles and responsibilities. The study's findings indicated strong agreement among respondents regarding the importance of these strategies, supported by a high Cronbach's alpha score. However, there are areas for improvement, particularly in underwriting risk oversight and fraud prevention, suggesting that while the current strategies are beneficial, a more comprehensive evaluation is necessary.

Effective operational risk management provides significant benefits to micro-insurance companies, as evidenced in the study. Key advantages include a reduction in financial losses, better regulatory compliance, improved business continuity during disruptions, and enhanced customer trust. These benefits were corroborated by the respondents' perceptions, indicating a strong belief in the positive impact of robust risk management practices on organisational performance and sustainability.

The study successfully designed a framework for managing operational risks that emphasizes essential components such as well-documented processes, effective risk identification, and regular risk assessments. The framework was validated through factor analysis, demonstrating strong internal consistency and high variance explanation. Implementing this structured approach would significantly enhance SamChi's ability to systematically identify, evaluate, and control operational risks, thereby optimizing its risk management practices within the micro-insurance sector.

The study significantly contributes to the theoretical landscape of operational risk management within the micro-insurance sector. By identifying specific sources of operational risk and their interrelations, the research extends existing theories on risk management by providing empirical evidence tailored to the unique context of micro-insurance. It highlights the critical importance of standard operating procedures, staff training, and communication as foundational elements for mitigating risks. Furthermore, the development of a customized operational risk management framework offers a theoretical model that micro-insurers can adapt to enhance their governance structures. This contribution not only deepens the understanding of operational risks in micro-insurance but also paves the way for future theoretical explorations in related fields.

In terms of methodology, this research utilised a robust scientific approach, incorporating descriptive statistics, exploratory factor analysis, and reliability testing to ensure the validity and reliability of the findings. The use of multiple linear regression to analyze the relationships between independent variables and operational risk management underscores the methodological rigor of the study. By applying these techniques in the context of micro-insurance, the research sets a precedent for future studies in this domain to adopt similar methodologies. Moreover, the study's comprehensive approach to assessing operational risks and management strategies provides a methodological framework that can be replicated in other settings, thereby enhancing the research toolkit available to scholars and practitioners in the field.

Empirically, the study offers valuable insights into the operational risk management practices at SamChi Micro-insurance, highlighting both the strengths and weaknesses of their current strategies. The findings indicate that effective risk management leads to significant benefits, such as reduced financial losses and improved regulatory compliance. By presenting concrete data on the impact of operational risk management practices, the research adds to the empirical evidence supporting the need for robust risk governance in micro-insurance organisations. Additionally, the development of a tailored operational risk management framework serves as a practical tool for micro-insurers, illustrating how empirical findings can be translated into actionable strategies that enhance organisational resilience and performance. This contribution not only informs industry practitioners but also enriches the academic discourse surrounding risk management in micro-insurance contexts.

Senior Management should:
Assign clear roles and responsibilities for risk management within the organisation to enhance accountability (Clark, 2021).

Risk Management Team should:
Develop a risk monitoring framework for ongoing risk identification and assessment to ensure timely responses (Evans, 2022).

Training Coordinators should:
Facilitate cross-departmental training to enhance understanding of operational risks and collaborative problem-solving (Harris, 2023).

The Quality Assurance Team should:
Conduct regular reviews of risk management practices to evaluate strategies and identify areas for improvement (Wright, 2022).

Other Teams:

- Employee Engagement Team: Implement feedback mechanisms that allow staff to provide input on risk management practices, promoting engagement and continuous improvement (Turner, 2023).
- Data Analytics Team: Uutilise data analytics tools to quantitatively evaluate operational risks and enhance decision-making (Roberts, 2022).
- Continuous Improvement Team: Encourage a culture of continuous improvement in risk management practices, adapting to new challenges (Nelson, 2021).

- Stakeholder Engagement Team: Engage key stakeholders in discussions about risk management strategies to ensure diverse perspectives are considered (Green, 2023).

Education 5.0 is a transformative approach aimed at fostering innovation, industrialisation, and practical solutions to real-world challenges through a structured integration of academic, scientific, and practical methodologies. The study on operational risk management at SamChi Micro-insurance aligns with this framework by not only addressing theoretical foundations but also proposing actionable solutions that can directly impact Zimbabwe's micro-insurance industry. This section discussed how this research exemplifies Education 5.0's goals by contributing to knowledge generation, practical application, and innovation.

The study contributes significantly to understanding the sources of operational risks in micro-insurance. Through rigorous data collection and analysis, the research identified key operational risks, including inadequate communication, out-dated technology, and lack of standard operating procedures. These findings highlight the gaps that need to be addressed to ensure the resilience of micro-insurers like SamChi. By applying Education 5.0 principles, the research emphasizes the need for academic inquiry that is directly linked to real-life organisational challenges. The use of factor analysis, reliability testing, and other scientific methods to validate findings demonstrates a systematic approach to knowledge generation, ensuring the research's credibility and relevance.

A key objective of Education 5.0 is to foster innovation by transforming theoretical knowledge into practical solutions. The study fulfils this goal by designing a comprehensive operational risk management framework tailored to the specific needs of micro-insurers. This framework, grounded in empirical evidence, offers a structured approach to risk identification, assessment, and mitigation. By recommending improvements such as upgrading technology, strengthening internal controls, and enhancing staff training, the research provides concrete, actionable steps that can be implemented to address identified risks. This approach not only advances theoretical understanding but also directly supports the industrialisation and

modernisation goals of Education 5.0 by proposing innovations that improve business operations.

The study emphasizes the importance of building internal capacity within micro-insurance organisations, particularly in areas such as staff competency development, communication, and risk governance. Education 5.0 seeks to create knowledge-driven industries that can sustain themselves through ongoing capacity building. The research's recommendation to integrate risk management training and continual review processes into daily operations fosters a culture of continuous improvement and learning. By encouraging the development of internal capabilities, the study aligns with Education 5.0's objective of creating sustainable, knowledge-based solutions that can be replicated and scaled across the sector.

Education 5.0 also stresses the need for strong linkages between academia, policy-making, and industry. The study's recommendations extend beyond SamChi, offering insights that are applicable to the broader micro-insurance sector in Zimbabwe. By proposing that risk management be integrated into organisational policies and advocating for the establishment of risk management committees, the research bridges the gap between academic findings and policy development. This alignment with industry needs ensures that the research outputs are not only academic exercises but also practical contributions to sectoral improvements. Furthermore, the proposed longitudinal and comparative studies offer avenues for future research, fostering an ongoing collaboration between academia, industry, and policymakers.

Management Teams can:
- ☐ Define and enforce clear standard operating procedures (SOPs) across all departments to minimize operational risks (Smith, 2022);
- ☐ Improve internal communication by developing effective channels to foster collaboration between departments (Brown & Taylor, 2023).
- ☐

Training and Development can:
- ☐ Enhance staff training programs by implementing regular training sessions focused on operational risk management (Johnson, 2021).

- Promote a risk-aware culture by fostering an environment that prioritizes risk awareness and proactive management among all employees (White, 2022).

Risk Monitoring and Assessment can:

- Conduct regular risk assessments to identify and address emerging risks proactively (Lee, 2022).
- Strengthen internal controls by establishing robust mechanisms to prevent operational failures and enhance compliance (Davis, 2021).

Systems and Processes:

- Upgrade technology by investing in modern solutions to streamline operations and reduce risks associated with outdated systems (Miller, 2022).
- Integrate risk management into organisational policies to promote a unified approach (Roberts, 2023).
- Establish a risk management committee to oversee practices and ensure accountability (Anderson, 2021).
- Monitor regulatory compliance by regularly reviewing adherence to relevant regulations and adjusting policies as necessary (Taylor, 2023).

The findings from the study can be generalised to other micro-insurance organisations in Zimbabwe and similar emerging market contexts. Firstly, the sources of operational risk identified such as inadequate training, lack of standard processes and poor communication are common challenges faced by micro-insurers regardless of size or location. Similarly, the benefits of effective risk management in reducing losses, improving compliance and enhancing resilience cut across the industry.

Additionally, the assessment of SamChi's risk strategies and development of a tailored framework provide lessons that can be adapted by other micro-insurers. While individual risks and suitable mitigation tactics may differ, the overarching recommendations around clearly defined roles, on-going monitoring and a structured approach are universally applicable. Lastly, the sector-wide policy proposals on integrating risk management into regulations and organisational policies, if implemented, would support improvements across the broader micro-insurance landscape. The research therefore

generates knowledge that micro-insurers in comparable environments can reference to strengthen their own governance.

One of the limitations of this quantitative research study was that it was conducted as a cross-sectional study at a single point in time. This means that changes in operational risks and management practices over extended periods could not be accounted for. A longitudinal study conducted over multiple years may provide deeper insights into the dynamics of operational risk exposure and the impact of mitigation strategies over time.

Additionally, using self-reported survey data from SamChi employees is subject to potential response bias. Although anonymity was assured, respondents may have responded in socially desirable ways. Triangulating the survey results with official company records on risks and strategies could help enhance the validity of the findings.

Generalising the findings was also limited since the study only focused on analyses at a single micro-insurer, SamChi. Conducting comparative studies that analyse and compare operational risks and practices across multiple micro-insurance firms would help strengthen the external validity and generalizability of the results.

One potential area is to conduct a longitudinal study tracking operational risks and management strategies over multiple years at SamChi. This could provide valuable insights into how risks and mitigation efforts may change and evolve over an extended period of time.

Comparative studies analysing and comparing operational risks and practices across a sample of micro-insurers of varying scales would help generalise findings while also providing deeper understanding of industry-wide and firm-specific challenges.

Conducting more in-depth case studies of high-performing micro-insurers' specific risk management strategies could help uncover best practices that other firms could aim to replicate.

An experimental research design manipulating factors like training programmes or communication channels could establish clearer causal impacts on organisations' overall operational performance.

As operational risks are always evolving with technological changes, future research should explore new challenges arising from FinTech disruption and potential solutions like AI-based forecasting of emerging risks.

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Synopsis

This monograph is based on a study that sought to assess the taming operational management risks model in micro-insurance organisations based on a study of SamChi Micro-Insurance. The study also sought to explore the plausible sources of operational risks associated with SamChi Micro-Insurance operations, assess the operational risk management strategies currently being employed at SamChi Micro-Insurance, establish the plausible benefits of effective operational risk management to micro-insurance companies and to design a framework that can be used to effectively manage operational risks at SamChi Micro-Insurance and other similar micro-insurance organisations. The study concluded that the major sources of operational risk for SamChi Micro-Insurance are a lack of clearly defined standard operating procedures, inadequate staff training, poor communication between departments, outdated technology systems, and insufficient internal controls. These operational risks significantly impact SamChi's vulnerabilities if not properly addressed. The study also concluded that while SamChi's existing operational risk management strategies around risk management training, ongoing risk identification and monitoring, clearly outlined roles and responsibilities, and regular control evaluations are generally aligned with leading practices, there is still room for improvement. In particular, the study found that SamChi's underwriting risk oversight and fraud prevention strategies could be strengthened. Based on these conclusions, the study recommends that SamChi focus on enhancing their internal processes, communications approaches, staff competency development programmes, technology infrastructure, and control mechanisms to more effectively minimize operational risks. It also recommends that SamChi undertake a more comprehensive evaluation of their entire operational risk management framework to identify any existing gaps and implement corrective actions to ensure risks are appropriately mitigated across all functional areas.

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