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**The Effectiveness of Risk Mitigation Strategies in Project Portfolios in
Zambia**

**A Thesis Submitted in Partial Fulfilment of the Requirements for the
Award of the Degree**

Master of Science in Project Management (MSc PM)

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DECLARATION

I, **Mwansa Shadrach**, hereby declare that this dissertation titled "**The Effectiveness of Risk Mitigation Strategies in Project Portfolios in Zambia: A Case Study of EaRN Zambia, Seeds of Change, and Brasys**" is my original work. It has not been presented for a degree or any other academic qualification at any university or institution.

I affirm that all sources used have been appropriately acknowledged, and this research conforms to copyright laws, academic integrity, and the ethical guidelines of University of Lusaka. Any errors or omissions remain my responsibility.

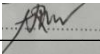
I further declare that this study adheres to the ethical considerations outlined by **the University of Lusaka's Research Ethics Committee**, and all necessary permissions were obtained from relevant stakeholders before data collection.

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DEDICATION

I dedicate this work to my beloved mother, **Josephine Sampa**, whose unwavering love, sacrifices, and support have been the foundation of my academic and personal achievements. Her strength and guidance have shaped me into the person I am today. This dissertation is a testament to her endless encouragement and belief in my potential.

A special acknowledgment goes to **Dorothy Kazya** for her invaluable support during this period of study. Her encouragement and assistance have been instrumental in helping me navigate the challenges of this academic journey.

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ABSTRACT

This study examined the effectiveness of risk mitigation strategies within project portfolios in Zambia, focusing on EaRN Zambia, Seeds of Change, and Bracing Africa's health which are Zambian non-governmental organisations. The research aimed to assess how these organizations identified, assessed, and managed risks while ensuring project sustainability. A qualitative case study approach was employed, utilizing semi-structured interviews and document analysis to collect data from 13 key stakeholders across the three organizations.

Findings revealed that risk mitigation strategies varied significantly among the organizations. EaRN Zambia relied on scenario planning to anticipate uncertainties, whereas Seeds of Change integrated community engagement and education as proactive measures. Brasy's prioritized data-driven decision-making to monitor and address risks. The study highlighted key challenges, including financial constraints, resistance to change, and operational complexities.

The research contributed to the field by emphasizing the need for context-specific strategies aligned with organizational goals. Key recommendations included enhancing risk-awareness training for staff and improving stakeholder engagement through participatory approaches. These findings provided actionable insights for policymakers and development organizations in Zambia's project management sector. Based on these insights, the study proposes a context-specific risk management framework tailored to Zambia's socio-economic environment. This framework integrates contingency-driven practices, participatory decision-making, and cost-effective monitoring tools, offering actionable guidance for policymakers and NGOs. The research contributes to risk management literature by bridging global theories with local realities, emphasizing the role of institutional and cultural contexts in shaping resilience

Keywords: Risk mitigation, project management, Zambia, scenario planning, stakeholder engagement, qualitative case study.

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CHAPTER ONE:

INTRODUCTION AND BACKGROUND

1.1 Introduction.

In Chapter One, the critical role of risk management in ensuring project success especially in project portfolios will be introduced. This chapter will also explore key themes such as Project Portfolio Risk Management (PPRM), the definition and nature of risks will be explored as well and the importance of risk mitigation strategies in achieving organisational objectives and goals. According to Gibson (2023) states that risk management is the systematic process of identifying, assessing and mitigating threats or uncertainties that may affect an organization. It also involves analysing the likelihood and impact of risks developing strategies to minimize harm and monitoring the effectiveness of those measures. Moving on, Hofman, Spalek and Grela (2017) define a project portfolio as a collection of individual projects and programs carried out in an integrated manner. This approach helps organisations achieve their strategic objectives by managing the interfaces between projects balancing scarce resources across projects and programs and addressing both risks as well as benefits.

According to Gumz (2012), project risk management includes the processes concerned with conducting risk management planning, identification, analysis, responses and monitoring and control on a project , further according Camilo et al , (2020) states that Project Portfolio Risk Management (PPRM) has been identified as a relevant area regarding project portfolio success aligning project selection with strategic objectives and centralizing portfolio management enhances decision making and minimizes risks . A balanced portfolio very often achieved through diversification reduces the inherent risks of dynamic projects. According to Gumz (2012), project risk is an uncertain event or condition that if it occurs has a positive or negative effect on at least one project objective or more. If risks occur, they can impact the quality , scope, schedule or the cost which may affect project success

1.2 Background to the Study.

According to Crispin (2020), risk mitigation has long been a foundation and cornerstone of project management which involves the systematic identification, assessment and prioritization of risks followed by the deployment of resources to minimize, monitor as well as control their impact or even the probability. Risk identification is a challenging process in the management of project risks. Most project managers tend to spend less time in identifying risks and more time in risk mitigation ignoring the fact that unidentified risks cannot be mitigated. However,

it is worth noting that risk identification forms the bedrock in the development of a suitable risk management plan.

In the earliest applications of risk management, according to Gantz and Philpott (2013) states that risk management often had a reactive and not proactive focus addressing challenges only after they materialized. This reactive approach limited the ability of organizations to anticipate potential threats and proactively manage uncertainties. Over time, advancements in project management methodologies highlighted the importance of proactive risk mitigation as an important strategy for ensuring project success. Further it is said that risk management decision making relies on risk determinations produced through the supporting processes of risk identification and assessment.

According to Hofman, Spalek and Grela (2017) state that organizations increasingly began to rely on project portfolios, which is a collection of interrelated projects and programs to achieve their strategic objectives and goals, risk mitigation became even more important. Project portfolios by nature involve interdependencies which are complex where risks in one project can cascade across the entire portfolio of projects. Managing these interdependencies in risk management requires approaches that are adaptive and strategic to balance resources, address uncertainties and align with organizational goals and objectives. (Today, effective risk mitigation not only ensures that projects achieve their objectives but also protects the overall stability and viability of portfolios.

In the present context, risk mitigation is a proactive process that includes developing conceptualized action plans to reduce vulnerabilities and address potential threats. Ahmed (2017) emphasizes that risk mitigation requires specifying responses to identified risks and documenting them in a risk register. This structured approach helps organizations prepare for potential challenges, enabling them to mitigate or entirely avoid risks. Strategies for addressing risks include transferring risks to another entity, accepting risks while preparing contingency plans, avoiding risks through changes to project scope or schedule, and monitoring risks for any potential changes (Ibid, 2017).

Further, Pritchard (2015) states that interconnectedness of projects within a portfolio highlights the need for portfolio-wide strategies that account for shared resources, collective risks, and overall impact. Risk mitigation strategies should be adaptive, proactive, and aligned with broader organizational objectives According to Barghi, Shahram and sikari ,(2020) effective strategies integrate both qualitative and quantitative tools, including risk analysis frameworks,

scenario planning, and decision-making models, to address potential uncertainties at every stage of the project lifecycle. There are many risks in oil projects which can cause many problems if there is no required control and planning.

A key advantage of risk mitigation is its ability to enhance opportunities while reducing threats. Early identification of risks allows project teams to develop proactive measures to avert or minimize impacts, thereby improving project outcomes and stakeholder satisfaction (Luppino, Hosseini, & Rameezdeen, (2014). For example, according to Watt and Wiley, et al (2014) strategies such as transferring risks to insurance providers or partners, accepting manageable risks with contingency plans, or avoiding risks by altering project parameters have proven effective in maintaining project viability and sustainability.

Globally, According to Bowers & Khorakian, (2014), risk mitigation practices have become increasingly structured and sophisticated, driven by advancements in project management methodologies and frameworks. Standards such as ISO 31000:2009 provide comprehensive guidelines for managing risks across diverse sectors and project types. These frameworks emphasize the importance of integrating risk management throughout the project lifecycle from, initiation to closure, to ensure that risks are identified assessed and mitigated at every stage. However, risk management is not without challenges, risk management has become increasingly important in today's business environment due to various factors such as globalization, technological advancements and changing customer needs and expectations, structured risk management practices anticipate risks, analyse impacts and implement mitigation strategies (Ahmed, 2017). However, according to Bowers and Khorakian, (2014) who stated that excessive or too much or inappropriate risk management might stifle the creativity that is core to innovation. Thus, balancing data availability, costs and output value is essential when defining effective methods.

Looking toward the future, Cossato, (2024) states that risk mitigation strategies are expected to become more dynamic and technology driven. The increasing complexity of project portfolios, coupled with advancements in data analytics and digital tools, is paving the way for predictive risk management. Future oriented strategies will likely leverage artificial intelligence, machine learning and real time monitoring to anticipate risks before they materialize. Artificial Intelligence (AI) and predictive analytics have emerged as transformative tools that can significantly enhance the way projects identify, assess and mitigate risks. By integrating predictive analytics with traditional risk management

frameworks, organizations will be better equipped to respond to emerging threats and uncertainties in real time.

In Zambia, according to Silwimba (2022), there is an emerging trend to support the risk management profession and in 2018, several groupings started in which the notable one was the formation of the Institute of Risk Management Zambia (IRMZA). But despite this, according to Nunkwe, Nunkwe, and Haabazoka, (2022 this development projects funded by non-governmental organizations (NGOs) and donor agencies encounter various risks which range from political, financial, operational and environmental challenges). Organizations such as Brasys, EaRN Zambia, and Seeds of Change operate within this challenging environment, where their ability to manage risks significantly impacts the success of their project portfolios. These organizations must adopt innovative and adaptive risk mitigation strategies to navigate uncertainties optimize resources, and achieve sustainable outcomes. This study was seeking to investigate the effectiveness of risk mitigation strategies implemented by these three organizations focusing on their past experiences, current practices and future oriented approaches. By examining their strategies, this research aimed to provide insights into how risk mitigation contributes to the achievement of project objectives and the long-term success of project portfolios. The findings from this study will not only benefit the studied organizations but also offer valuable lessons for other entities operating in similar project contexts.

1.3 Statement of the Problem

Projects regardless of their type and size face risks, project's characteristics such as innovation level, constraints, a joint venture by multinational and political stakeholders, changing the environment, and such similar traits can increase the project risk level, henceforth, effective risk mitigation strategies are important for ensuring the success of projects especially in multi project environments such as project portfolios. Around the globe, studies have demonstrated that proactive risk management techniques such as cost control, schedule management, political risk mitigation and rapid prototyping can significantly improve project outcomes by minimizing uncertainties and enhancing opportunities (Ahmed, 2017) and (Luppino, Hosseini, & Rameezdeen, 2014) have stated. According to IntechOpen, (2017), various approaches have been identified including strategies that increase responsiveness, strategies that reduce cost risks and mitigating schedule risks. For example, risk mitigation related to faster deliveries can improve production rates by 20%, making projects more responsive to market demands and reducing potential delays In addition, early identification of budgetary issues, as well as careful

scheduling, can prevent common cost risks such as inaccurate cost estimates and scheduling complications.

In Zambia, according to USAID (2024), project portfolios are increasingly being used to address critical developmental issues in thematic areas like education, health, agriculture, and infrastructure. This has enhanced the business enabling environment of the country and strengthened rural enterprises and sustainably managing Zambia's natural resource base. Organizations such as EaRN Zambia, Seeds of Change and Brasys manage innovative project portfolios designed to tackle socio economic challenges. However, according to Rodrigo , Zaneli & Arlet, (2024), Zambia's sociopolitical environment is marked by regulatory fluctuations, political instability and economic volatility which creates a complex risk landscape. These challenges coupled with limited resources and infrastructure constraints make the effective implementation of risk mitigation strategies vital to ensure project success and sustainability.

While the importance of risk mitigation strategies is widely acknowledged significant gaps exist in understanding the effectiveness of these risk mitigation strategies within the context of Zambian project portfolios. According Pritchard, (2015), literature that existing on managing of risks focuses on global frameworks and best practices offering limited insights into how these strategies perform in localized contexts especially in developing economies like Zambia. The dynamic and innovative nature of projects managed by organizations like the organisations under review like EaRN Zambia and Seeds of Change requires tailored approaches to risk management that account for the unique socio political, economic and cultural factors present in Zambia. In addition, Hynuk , Benoît & Robert (2008) state that the interrelatedness of project portfolios means that risks encountered by one project can cascade across the portfolio potentially jeopardizing the entire portfolio's objectives and goals Yet there is a lack of empirical research evaluating how Zambian organizations adapt and implement risk mitigation strategies to address these challenges. Without such insights project delays, cost overruns and unmet objectives remain persistent risks undermining the socio-economic impact of these projects.

This study was seeking to address these gaps by investigating the effectiveness of risk mitigation strategies within project portfolios managed by EaRN Zambia, Seeds of Change and Brasys. By exploring how these organizations identify, adapt and implement risk management practices the study aimed to provide and understanding of their impact on project outcomes in

the Zambian context which is comprehensive. The findings from this study bridge the gap between global theories and local practices offering actionable recommendations for improving risk management frameworks in Zambia. In addition, this study contributes to the broader body of knowledge on project portfolio management in developing countries with implications for enhancing resilience and success in similar socio political and economic environments.

1.4 Main Objective:

The general objective of this study was to analyse the effectiveness of risk mitigation strategies in project portfolios within Zambian development projects.

1.5 Specific Research Objectives:

The specific objectives of this study were to:

- I. Explore and compare the risk mitigation strategies used by EaRN Zambia, Seeds of Change and Brasys in managing their project portfolios.
- II. Evaluate the effectiveness of these risk mitigation strategies in achieving project objectives and outcomes.
- III. Identify the challenges and the best practices implemented in risk management across the three organizations.
- IV. To propose a context-specific risk management framework that integrates resource allocation strategies and cultural considerations to enhance the effectiveness of risk mitigation practices in Zambian development projects.

1.6 Research Questions

This study is guided by the following;

- I. What risk mitigation strategies do EaRN Zambia, Seeds of Change and Brasys use in their project portfolios and how do these strategies compare?
- II. How effective are these strategies in mitigating risks and achieving project goals?
- III. What challenges do these organizations face in implementing risk mitigation strategies and what best practices emerge?
- IV. How can a context-specific risk management framework address the impact of resource allocation strategies and cultural differences on risk mitigation practices in Zambia?

1.7 Significance of the Study

This study examines the effectiveness of risk mitigation strategies within Zambian project portfolios, it focuses on EaRN Zambia, Seeds of Change and Brasys. It demonstrates how effective strategies reduce risks like cost overruns and delays while improving resource use and project outcomes. The findings offer practical guidance for project managers and development practitioners providing tailored recommendations to enhance sustainability and success in similar contexts.

In terms Academics, this research fills a gap in risk management and mitigation literature in Zambian development projects. By ensuring that the gap is bridged the study also enriches theoretical and practical understanding serving as a valuable resource for both scholars as well as practitioners.

1.8 Scope of the Study

This study is a Case Study focused on three organizations Bracing Africa's Health , EaRN Zambia and Seeds of Change to examine and compare their risk mitigation strategies within project portfolios. It engaged key stakeholders within the organisation such as Executive Directors, program managers, finance and operations staff, communications officers, program officers and quality assurance officers all of whom play critical roles in project management and risk mitigation.

The research study explored key areas including the identification and assessment of risks affecting these organizations projects. It examined the processes used to identify potential internal and external threats and analyzed the frameworks employed in risk assessment. In addition, the study evaluated various risk mitigation strategies including risk avoidance, transfer and reduction.

Although the study was limited to these specific organizations and did not extend to sectors or projects outside the development sector it provides valuable insights into risk management practices within Zambia's development context.

1.6 Delimitations of the Study

This study focused on analysing the effectiveness of risk mitigation strategies within the project portfolios of three organizations that is EaRN Zambia, Seeds of Change and Brasys. Geographically, the scope was limited to projects implemented in Zambia specifically in areas where these organizations are actively involved in development work.

The analysis was confined to projects undertaken between 2020 and 2024 which ensured that the study reflected recent and relevant risk management practices. The sample population included staff, project managers and key stakeholders from the selected organizations. Data collection employed a mixed methods approach which actually combined semi structured interviews and document reviews.

In addition to this, the study relied on established risk management frameworks and did not explore or test theoretical models which are new. This focus ensured a practical examination of real world applications of risk management strategies.

1.7 Definition of Key Terms and Concepts

According Koch and Urup (2017) who have defined **Project Performance** as the overall measurement of whether a project has met its objectives and requirements of scope, cost and schedule.

According to Hubbard (2009) who has defined **Risk Management** as the identification, evaluation and prioritization of risks followed by the minimization, monitoring and control of the impact or probability of those risks occurring .

Gantz & Philpott (2013) defines a **Risk Management Strategy** as an organization's plan outlining how it will identify, assess, respond to monitor and govern risks within a specific category.

Borek (2014) defines **Risk Avoidance** as the strategy of eliminating activities, processes or exposures that may cause risks thereby preventing any potential negative impact on organizational assets or project outcomes

(Borek, 2014) defines **Risk Reduction** as the calculation of forecast losses and then implementing measures that would lessen the losses in case the risk happens to come true or real.

Risk sharing is defined as the practice of distributing the potential impact of a risk between two or more parties through agreements, thereby reducing the burden on any single entity.(Ibid, 2014).

Risk Retention- The decision by an organization to accept and retain responsibility for a certain level of risk, without transferring or mitigating it through external means (Ibid, 2014)

Gurnov, (2024) defines **Project Portfolio Management (PPM)** as the centralized management of an organization's projects with the aim of aligning them with organizational objectives optimizing resource allocation, and managing risks across the entire portfolio.

Landau, (2023) defines **Resource Allocation** as the process of scheduling resources such as labor, materials or equipment across various projects or activities within an organization to achieve strategic objectives

Müller & Spang (2009) defines **Cultural Differences** as the variations in practices, values and behaviors between different organizational units or geographic regions which can influence communication, decision-making and the effectiveness of risk management strategies.

According to the Project Management Institute (2021), the term **project stakeholder** refers to an individual, group or organization who may affect be affected by or perceive itself to be affected by a decision, activity or outcome of a project, program or portfolio.

According Rausand (2013) defines **Risk Assessment** as a systematic process of identifying hazards and evaluating any associated risks within a workplace determine possible mishaps, their likelihood and consequences and the tolerances for such events. British Safety Council. (n.d.).

Babbie and Mouton , (2001) define **Qualitative Research** as a methodology focused on understanding complex phenomena through the collection and analysis of non-numerical data, such as interviews, observations, and documents. A research approach in social research which takes its departure point as the insider perspective on social action.

Katende, Kibe & Kubwimana, (2017) define **Risk Mitigation** as the actions taken to reduce the likelihood or impact of identified risks in a project. This includes strategies such as risk avoidance, reduction, sharing, and retention, aimed at minimizing potential negative outcomes

1.8 Summary of Chapter One

Chapter One introduces the foundation of the study, which focuses on analyzing the effectiveness of risk mitigation strategies within the project portfolios of EaRN Zambia, Seeds of Change, and Brasys. The general objective is to assess how well these strategies mitigate risks and contribute to achieving project objectives. Specific research objectives and questions are outlined, focusing on the exploration of risk mitigation strategies, their effectiveness, challenges, best practices, and the impact of resource allocation and cultural differences. The significance of the study is highlighted, emphasizing its contribution to improving risk

management practices in development projects within Zambia. The scope and delimitations define the boundaries of the research, including the organizations involved, the geographic focus, and the research methods to be employed.

CHAPTER 2: LITERATURE REVIEW.

2.1 Introduction

This chapter presents the relevant literature that informs the study's focus on risk management within project portfolios. It introduces theoretical frameworks, empirical studies, and the conceptual framework, providing a structured foundation for understanding the variables under investigation. Specifically, this chapter outlines Agency Theory, Resource Based View Theory (RBV), and Stakeholder Theory, which serve as the study's anchors. The chapter concludes by highlighting key insights, gaps, and opportunities for further exploration, setting the stage for the study's contribution to the field.

2.2 Theoretical Review of Literature

The theoretical framework for this study on risk mitigation strategies in project portfolio management was rooted in Risk Management Theory, Contingency Theory and Portfolio Theory. These theories offer structured perspectives for understanding how organizations manage risk across multiple interconnected projects ensuring strategies are responsive to evolving environments and project complexities.

2.2.1 Risk Management Theory

According to Kerzner (2017), Risk Management Theory suggests that risks are inherent in every project, but with proper identification, assessment, and mitigation, organizations can minimize the negative impacts. This theory is crucial for project portfolio management where risk is often magnified due to the interaction of various projects. Risk management is a proactive process embedded in every stage of project management, including planning, execution and control. The theory assumes that risk can be quantified, categorized and managed through frameworks that anticipate and mitigate potential issues before they occur. Hillson (2009) adds that effective risk management requires continuous monitoring with a strong focus on early risk identification and response planning, which directly influences project outcomes.

Risk Management Theory has been extensively studied in the project management literature. Kerzner (2017) defines risk management as a systematic process that helps organizations identify and respond to uncertainties that may impact project success. It involves risk identification, qualitative and quantitative risk analysis and the development of risk response plans. Hillson (2009) further asserts that risk management must be an integral part of the project governance framework, especially in portfolios where risks across projects can be

interconnected. In the context of project portfolio management this theory emphasizes the need for a proactive approach to risk mitigation, ensuring that risks are identified early and mitigation strategies are integrated into the portfolio planning process. Project Management Institute (PMI) (2017) guidelines emphasize a structured approach to risk management that includes risk identification, risk assessment, risk response planning and risk monitoring.

2.2.2 Contingency Theory

According to Donaldson (2006) who stated that contingency theory is a branch of management theory that suggests that the best approach to managing an organization depends on the specific situation or context in which it operates. The theory argues that there is no one size fits all approach to management and that different management strategies are appropriate in different situations. In project portfolio management this theory is vital for understanding that each project's risk profile is unique and therefore risk mitigation strategies must be adaptable.

According to Sarta, Durand and Vergne (2021) who emphasized that organizations must adapt their structures and processes based on environmental demands, a concept that holds true for risk management within a portfolio of projects. Organizational adaptation is equivocal. On the one hand the concept is ubiquitous in management research and acts as the glue binding together the central issues of organizational change, performance and survival. Risk mitigation strategies must be flexible and adaptable to the specific needs of each project balancing between standard practices and customized solutions.

According to Fredericks (2004), the contingency theory offers a more dynamic and flexible perspective on risk mitigation. He argues that management strategies including risk mitigation must be dependent on external factors like project complexity, organizational structure and the broader environmental context. This adaptability is crucial in project portfolio management where no two projects are alike. As Sarta, Durand and Vergne (2021) explain that organisations must tailor their management approaches to meet the specific needs of each project suggesting that rigid one size fits all approaches to risk mitigation are unlikely to be effective. This theory supports the idea that organizations must develop flexible risk management frameworks that can be adapted to various project types and changing environments. For instance, according to Raz & Shenhar (2002) said that in highly uncertain environments agile risk management approaches may be necessary to respond to emerging threats while in more stable contexts traditional risk management practices may suffice.

2.2.3 Portfolio Theory

According to Cunha-Dolci & Maçada (2011), Portfolio theory is concerned with risk and return. However, assigning weight to the risk at least equal to the yield was the big news in the 1950s. Until then both in academia and for the general public the stock market was no more than a playground for speculators. So in 1952, Nobel laureate Harry Markowitz then a young doctoral student in operations research at the University of Chicago demonstrated mathematically for the first time why putting all your eggs in one basket is an unacceptable risk strategy and that diversification is the best deal for an investor or a manager of a company. In Markowitz's analysis he expected return and risk of several portfolios were quantified. Therefore, portfolio theory is about maximizing the benefits of investments considering risk and return According to Archer and Ghasemzadeh (1999) state that organizations need to select and prioritize projects based on how they fit into the overall portfolio balancing high risk and high reward projects with safer more stable ones. The risk associated with each project is considered in relation to its potential contribution to organizational objectives and overall portfolio performance is optimized by diversifying projects.

According to Archer and Ghasemzadeh (1999), portfolio theory has become a critical framework in project management literature, in particular to the context of managing multiple projects with varying risk levels. They describe portfolio management as a process that enables organizations to achieve strategic goals by balancing risk and reward across a set of projects. This approach aligns with Markowitz's (1952) original Portfolio Theory which advocates for risk diversification to achieve optimal returns in financial portfolios. In the context of project portfolio management this translates into a strategic approach to selecting and prioritizing projects based on their risk return profiles ensuring that the portfolio as whole remains aligned with organizational goals and risk tolerance.

2.3 Risk Identification in Project Portfolio Management.

According to Kerzner (2017) state that the first critical step in effective risk management is risk identification where potential risks that could affect the project portfolio are detected. He further siad that who identifying risks at the portfolio level is more complex than in individual projects due to the interactions and interdependencies between projects. Risks in project portfolios can be categorized into two types those that are endogenous risks (meaning those originating from within the organization) and those which are exogenous risks (those originating from external factors). According to Olsson (2008) state that endogenous risks may arise from poor project execution, resource misallocation or lack of stakeholder engagement

while exogenous risks include market fluctuations, regulatory changes or unforeseen technological advancements.

According to Hillson (2009) indicated that the use of structured frameworks and tools such as risk registers, checklists and brainstorming sessions are common methods of risk identification in addition Risk Breakdown Structures (RBS) can help categorize risks across different projects within a portfolio ensuring that no potential threats are overlooked says (PMI, 2017). However, as Cooper et al (2001) suggests that identifying risks at the portfolio level requires not only attention to individual project risks but also a focus on risks that may emerge from project interdependencies which can often be complex and dynamic.

2.4 Risk Assessment in Project Portfolios

Once risks are identified, according to Ahmed, Pereira and Jane (2024) who say that they need to be assessed in terms of their likelihood and potential impact on the portfolio. Risk assessment involves both qualitative and quantitative methods to prioritize risks and determine appropriate mitigation actions. According to Archer and Ghasemzadeh (1999) who said that assessing risk in a project portfolio requires a holistic view of the projects interactions as risks may affect not just a single project but the entire portfolio's performance.

According to Ben David and Raz (2001) who said that quantitative methods such as Monte Carlo simulations and decision tree analysis allow portfolio managers to model potential risks and their impacts on the portfolio. On the qualitative side, according to Hillson (2009) who said that techniques such as risk matrices and SWOT analysis provide a means for categorizing risks based on their likelihood and severity.

According to Ahmed, Pereira and Jane (2024) who said that by combining the strengths of both methodologies' researchers can triangulate data, validate findings and gain deeper insights into research. Research suggests that a balanced approach combining both qualitative and quantitative techniques leads to more accurate risk assessments. Zwikael and Ahn (2011) argue that this combination is especially important in dynamic project environments where risks are continuously evolving. Furthermore, according to Shenhar and Dvir (2007) the effectiveness of risk assessment depends on the organization's ability to maintain flexibility and adaptability recognizing that risks may shift as projects progress and new information becomes available.

2.5 Risk Mitigation Strategies

According to Kerzner (2017) once risks are identified and assessed the next step is to develop strategies to manage them. These strategies aim to reduce the likelihood of risks occurring or

minimize their impact. The four primary risk response strategies are risk avoidance, risk transfer, risk mitigation and risk acceptance.

According to PMI, (2017) who have said that risk avoidance involves proactive steps to eliminate risks such as altering project plans, redefining scopes or abandoning high risk projects. Risk transfer shifts the responsibility to a third party often through insurance or outsourcing. Risk mitigation focuses on reducing the likelihood or impact of risks by introducing redundancies, improving processes or increasing resource buffers. Risk acceptance acknowledges that certain risks are inevitable and must be addressed if they materialize.

In project portfolios, according to Jonas (2010) who said that risk mitigation strategies must consider the interdependencies between projects. A risk in one project can ripple through the portfolio impacting others. This requires cross project strategies like balancing resources or adjusting schedules to ensure coordinated risk management.

Hillson (2009) says that research also highlights the importance of a risk aware culture within organizations where all stakeholders are involved in identifying, assessing and responding to risks, further more according to Cooper et al (2001) organizations with a strong risk aware culture are better equipped to respond to risks at the portfolio level as they have established processes and frameworks for communication, decision making and accountability.

2.6 Empirical Literature

This section reviews related studies showing their theories methods, conclusions and recommendations across global, regional as well as the Zambian contexts.

2.6.1 Risk Management Global Perspective

Accordng to Bessis, (2011) who says that literature underscores the growing importance of effective risk management strategies worldwide, influenced by technological advancements, regulatory demands and socio-economic dynamics. Risk management involves identifying, assessing and prioritizing risks then applying resources to minimize their impact or capitalize on opportunities. Regions adopt varied approaches based on their unique challenges emphasizing the importance of innovation and adaptability in managing risks says

2.6.1.1 North America

Studies have indicated that North America's construction industry leverages data driven solutions for proactive risk management. For example, research by Smith et al. (2021) shows that the integration of Building Information Modelling (BIM) in construction projects significantly reduces risk by improving design accuracy and resource allocation. According to Tatum & Barnes, (2020) studies have also found that predictive analytics help identify potential

delays and cost overruns allowing project managers to implement timely corrective measures. However, empirical evidence highlights ongoing challenges, such as skill shortages and fluctuating raw material costs which impact project timelines (Feldman & Krugman, 2023). Furthermore, according to Abdelhamid, (2019) who stated that stringent regulatory requirements including compliance with OSHA guidelines compel construction firms to maintain robust safety and quality control mechanisms.

2.6.1.2 Risk Management in IT Project Implementation (Canada):

Another study conducted in Canada focused on risk management in IT projects stated according to Schwalbe (2016) that IT projects are particularly vulnerable to risks associated with technological change, project scope creep and budget constraints. The research examined the effectiveness of risk management strategies in minimizing these risks and found that Canadian companies employing proactive risk management techniques such as early risk identification and stakeholder involvement in risk assessment were more likely to achieve project objectives. Furthermore, Schwalbe's study highlighted that regular communication among project team members and stakeholders helped in addressing emerging risks, ultimately leading to a higher success rate in IT projects.

2.6.2 Europe

According to Müller & Weber, (2023) who said that studies have also shown Europe's proactive stance in risk management driven by stringent regulations, technological advancements and cross sector collaborations. Europe emphasizes robust frameworks to address financial, environmental and operational risks while fostering resilience and innovation, according to the EU (2019), the EU develops policies that focus on prevention and the reduction of disaster risks as these actions will reduce the impact of adverse events. Increasing the resilience of infrastructure, ecosystems, society and the economy of the EU is an important strand of disaster risk management work or instance in terms of disasters.

2.6.2.1 Risk Management (Germany):

In Germany, a study by Altuntas, Berry-Stölzle, and Hoyt (2011) explored the effectiveness of risk mitigation strategies within financial institutions. The study utilized empirical data from 60 banks and insurance companies to evaluate how well they managed operational, market and credit risks. The research found that institutions with a structured risk management framework including the use of quantitative models for risk assessment and mitigation were better equipped to manage financial instability and regulatory risks. In addition, firms with a

dedicated risk management department had a more robust response to unexpected economic shocks, enhancing their financial stability and performance.

2.6.2.2 Risk Management in (Spain);

In Spain, According to López-Pérez et al (2015), the renewable energy sector faces unique risks including regulatory changes and fluctuating market demand. The study investigated the effectiveness of risk management strategies in this sector. The study found that successful renewable energy projects implemented comprehensive risk management strategies focusing on early identification of regulatory risks and the diversification of financial models. By adopting these strategies firms mitigated the impact of regulatory uncertainty and market volatility resulting in increased investor confidence and project sustainability.

2.6.3. Asia

According to Baghersad (2021) Asia's risk management landscape reflects a dynamic blend of traditional practices and modern innovations, shaped by rapid economic growth and diverse cultural contexts. Risk management identifies, assesses and introduces responses for risks to avert crises in the region . The region increasingly leverages digital technologies and regulatory reforms to address financial, environmental and operational risks.

2.6.3.1 Risk Management (China):

In China, the infrastructure sector is particularly susceptible to risks related to government policies, financing, and environmental challenges. Zou, Zhang and Wang (2007) conducted an empirical study examining risk management and mitigation strategies in major Chinese infrastructure projects. The study found that the most effective risk management strategies included risk-sharing arrangements between the public and private sectors, comprehensive environmental impact assessments, and financial contingency plans. By employing these strategies, project delays due to regulatory changes or environmental protests were significantly reduced.

2.6.3.1 Risk Management in (India):

India's manufacturing sector faces significant risks in supply chain management, including disruptions due to political instability, natural disasters and logistics issues. A study by Sodhi and Chopra (2014) analysed risk management strategies in Indian supply chains focusing on the automotive and textile industries. The study found that successful risk mitigation strategies involved diversifying suppliers developing flexible logistics networks and employing predictive analytics to anticipate disruptions. These strategies proved effective in minimizing supply chain delays and reducing financial losses due to unforeseen events.

2.6.4 Australia

According to Mizrak (2024) who said that Australia demonstrates a proactive approach to risk management characterized by strong regulatory frameworks, technological advancements and environmental considerations. Organisations in Australia prioritize comprehensive strategies to address both emerging and traditional risks fostering resilience in dynamic sectors. Effectively managing crises and mitigating strategic risks can determine an organisation's ability to withstand disruptions protect its reputation and maintain stakeholder trust.

2.6.4.1 Risk Management (Australia):

According to Henderson (2011) who conducted a study and said that the mining industry in Australia is highly exposed to risks such as fluctuating commodity prices, regulatory changes and environmental concerns. The study was conducted to assess the risk management strategies employed by Australian mining firms. The research found that firms that adopted risk management strategies focused on scenario analysis, financial hedging and environmental risk assessments were better positioned to handle market volatility and regulatory changes. The study concluded that a comprehensive risk management framework was essential for maintaining profitability and long-term sustainability in the mining sector.

2.6.4.2 Risk Management in (New Zealand);

A study by Mishra et al. (2010) indicated that agricultural projects in New Zealand face significant risks, particularly from climate change and global market fluctuations. The study examined risk management strategies employed by dairy and sheep farmers. The study found that farmers who implemented diversification strategies such as combining livestock farming with crop production were better able to mitigate financial risks associated with changing weather patterns and fluctuating commodity prices. In addition, according to Mishra et al., (2010) who said that climate resilient farming techniques and using financial tools like futures contracts were critical for managing economic uncertainty.

2.6.5 South America

According to GDFRR, (2024) who state that South America's approach to risk management focuses on tackling socioeconomic challenges, political instability and environmental risks. Emerging strategies emphasize greater regional collaboration and the adoption of technology to enhance organizational resilience, further Garcia & Ruiz (2023) state that Governments in Latin America and the Caribbean have long acknowledged the importance of addressing risks making significant efforts to develop effective tools and frameworks.

2.6.5.1 Risk Management in (Brazil):

According to a study conducted by Leiras et al. (2014) which stated that Brazil's oil and gas industry is subject to significant geopolitical, environmental and operational risks. The study analysed risk management strategies in major oil projects in Brazil and it found that successful approaches combined predictive analytics, environmental impact assessments and collaboration with government agencies. These measures helped mitigate risks tied to political instability and environmental protests. The study concluded that firms proactively managing these risks were more likely to maintain efficiency and avoid costly delays.

2.6.5.2 Risk Management in (Argentina):

A study done by González and Bulchand (2016) says that tourism in Argentina is vulnerable to economic fluctuations and natural disasters the study was conducted on risk management in tourism projects in Argentina. They found that risk management strategies focusing on diversification of tourist offerings, emergency preparedness planning and investment in insurance policies helped tourism operators manage risks more effectively. By employing these strategies tourism businesses were able to recover more quickly from economic downturns and natural disasters ensuring long term viability.

2.7 Effectiveness of Risk Management Strategies in Zambia.

In Zambia, according to Ademola Braimoh et al (2018), risk management plays a critical role in both the private and public sectors especially in industries like finance and agriculture, the country faces a variety of internal and external risks with its economic landscape presenting unique challenges such as economic volatility, climate change and operational uncertainties. This review examines two key case studies namely; risk management in Zambia's agricultural sector as well as the financial sector.

2.7.1 The Agriculture Sector; Climate Risk Management.

According to a study by Tembo and Sitko (2013) who found that Zambia's agriculture sector is highly vulnerable to climate risks including droughts, floods and erratic rainfall patterns which significantly affect crop yields, food security and the livelihoods of farmers. This study examined the effectiveness of climate risk management strategies in Zambia by focusing on the use of weather indexed insurance as a mitigation tool. The findings revealed that weather indexed insurance effectively protected farmers from income losses caused by droughts and other climate related risks offering a viable solution to enhance resilience in the Agric sector. However, according to Tembo & Sitko, (2013) who indicated that the study highlighted challenges such as low levels of adoption due to lack of awareness and financial constraints among smallholder farmers. Farmers who utilized this insurance reported fewer financial

shocks and were able to reinvest in farming inputs for subsequent seasons. To increase the effectiveness of climate risk management strategies the study recommended improving financial literacy among farmers and creating government led initiatives to subsidize premiums for small scale farmers.

In another study by Nkonde, Jayne and Chapoto (2016) who examined the effectiveness of conservation agriculture as a risk management strategy in Zambia. The study found that practices such as minimum tillage, crop rotation and maintaining soil cover significantly reduced the negative impacts of climate variability. The Farmers who were practicing conservation agriculture had more resilient crops during droughts and were less vulnerable to soil degradation. However, it was said that adoption rates remained low due to high initial costs and limited support from the government. The researchers recommended increasing access to inputs through subsidies and introducing farmer education programs to promote wider adoption.

2.7.2 Financial Sector; Risk Management in Banking.

According to Musonda (2014) who states that the Zambian financial sector has made significant strides in risk management particularly in the banking industry where credit and operational risks are major concerns. The researcher examined credit risk management practices in Zambian commercial banks and found that strategies like credit scoring models collateral requirements and customer creditworthiness assessments effectively reduced non-performing loans (NPLs) especially during periods of economic instability. However, challenges such as weak legal frameworks and difficulties in collateral recovery hindered loan enforcement. Musonda recommended strengthening Zambia's legal infrastructure and establishing a robust credit information sharing system to enhance credit risk management.

Further, Mulenga and Bimha (2018) investigated enterprise risk management (ERM) practices in Zambian banks and it showed a growing shift toward a holistic approach to managing credit, operational, market and liquidity risks. Their study revealed that banks with comprehensive ERM frameworks were better equipped to handle economic shocks such as the 2015 devaluation of the Zambian kwacha. They recommended broader adoption of ERM integration into corporate governance structures and continuous updates to risk management practices to align with global financial developments.

2.8 Critique of the Literature on the Effectiveness of Risk Management Strategies

Analysing the literature on risk management revealed common themes, gaps as well as challenges questioning the effectiveness of current strategies. The critique focuses on key areas such as recurring issues, emerging trends and implementation complexities.

2.8.1 Variability in Effectiveness Across Regions and Sectors.

According to Zhao et al (2016) who revealed that a key critique in the literature is the variation in the effectiveness of risk management strategies influenced by factors like geography, sector and socioeconomic context. For instance, studies from North America and Europe as stated by Doughty (2018) emphasized the advanced and mature risk management practices in sectors like finance and technology. In these regions, comprehensive frameworks like Enterprise Risk Management (ERM) are widely adopted focusing on both operational and strategic risks.

In contrast, regions like Asia and Latin America have more fragmented approaches to risk management. Tang and Lau (2020) have noted the progress in some Asian countries, while Dominguez et al. (2019) has highlighted ongoing challenges in parts of Latin America particularly in agriculture and healthcare where basic risk identification remains a struggle. These issues reflect gaps in capacity, infrastructure and governance which hinder the consistency of risk management practices. These findings emphasize that a one size fits all approach is insufficient. Risk strategies need to be tailored to regional challenges governance maturity, industry needs and socioeconomic conditions.

2.8.2 Over reliance on External or Donor Driven Solutions

In many developing regions particularly in Africa there is a heavy reliance on external support for implementing risk management strategies raising concerns about sustainability and long-term effectiveness. Studies like those by Tembo and Sitko (2013) in Zambia and Onyango (2019) in Kenya highlight how sectors like agriculture depend on funding and expertise from international organizations. This dependence creates an unsustainable model where strategies are tied to donor priorities and funding cycles leading to inconsistent implementation and scaling. Donor driven initiatives may also struggle to align with local needs or adapt to changing conditions especially for tools like weather indexed insurance which require long term engagement and capacity building to be effective.

2.8.3 Limited Focus on Systemic and Emerging Risks

According to Zhao et al. (2016) and Emerging risks, such as cybersecurity, technological disruptions, and geopolitical challenges, are receiving growing attention, but they remain underexplored compared to traditional risks like credit, market, and climate risks. While

research in North America and Europe Doughty (2018) according to including studies by has begun to tackle these modern challenges, much of the focus in other parts of the world, such as Africa, Asia, and Latin America, still centres on more conventional risk categories.

Cremer et al. (2022) highlighted a critical concern the tendency to overlook systemic and emerging risks despite their growing interconnectedness and potential for widespread disruption across industries. For instance, as digital technologies become deeply integrated into essential sectors like finance and healthcare, they bring cybersecurity threats that existing risk management frameworks often fail to adequately address. This oversight in current literature emphasizes the urgent need for a more forward-thinking approach to managing risks one that embraces technological, political and global uncertainties and integrates them into strategic planning efforts.

2.8.4 Fragmented and Inconsistent Data.

Studies like Nkonde, Jayne and Chapoto (2016) in Zambia and Dominguez et al. (2019) have found that a common issue across the literature is the fragmented and inconsistent data used to assess the effectiveness of risk management strategies. This is particularly true for studies conducted in developing regions such as Africa and Latin America where data collection infrastructure is often weak or unreliable.

According to Dominguez et al (2019) who indicated that inconsistent data hampers the ability to effectively evaluate the impact of risk management strategies and make informed decisions about their adaptation or expansion. Without reliable data organizations and governments cannot accurately measure the success or failure of risk interventions which leads to poor decision making and resource allocation. The literature emphasizes the need for improved data collection systems especially in sectors like agriculture and finance to support evidence based

In contrast, according to Maxwell et al (2023), in regions such as Africa and Latin America weak governance structures and inadequate regulatory frameworks undermine the implementation of effective risk management strategies. For example, in Zambia, Mulwanda, (2021) states that Credit Risk is one of the top five concerns of commercial banks and further Musonda (2014) highlights that in Zambia, legal challenges in enforcing loan repayments undermine the effectiveness of credit risk management strategies in the banking sector. This critique suggests that risk management strategies must be supported by strong governance, legal and regulatory systems to be effective particularly in developing countries.

2.8.6 Lack of Holistic Risk Management Approaches

According to Bromiley et al (2014), a key critique is the lack of a holistic approach to risk management in many regions and sectors. Many regulators, rating agencies, executives and academics have advocated a new approach to risk management which is Enterprise Risk Management (ERM). ERM proposes the integrated management of all the risks an organization faces which inherently requires alignment of risk management with corporate governance and strategy. While industries in North America and Europe often adopt integrated frameworks like Enterprise Risk Management (ERM), developing regions tend to address risks in silos. For instance, in Asia and Africa, risks are often tackled independently such as focusing on financial risks in banking or climate risks in agriculture, without considering their interconnectedness.

2.9 Conceptual Framework: Risk Management Strategies and Project Performance.

This framework for this study explores how risk mitigation strategies influence project performance moderated by challenges and best practices in implementation. It focuses on risk management in project settings and the effects of different strategies on the outcome of projects especially in the Zambian context.

Independent Variables

Dependent Variables

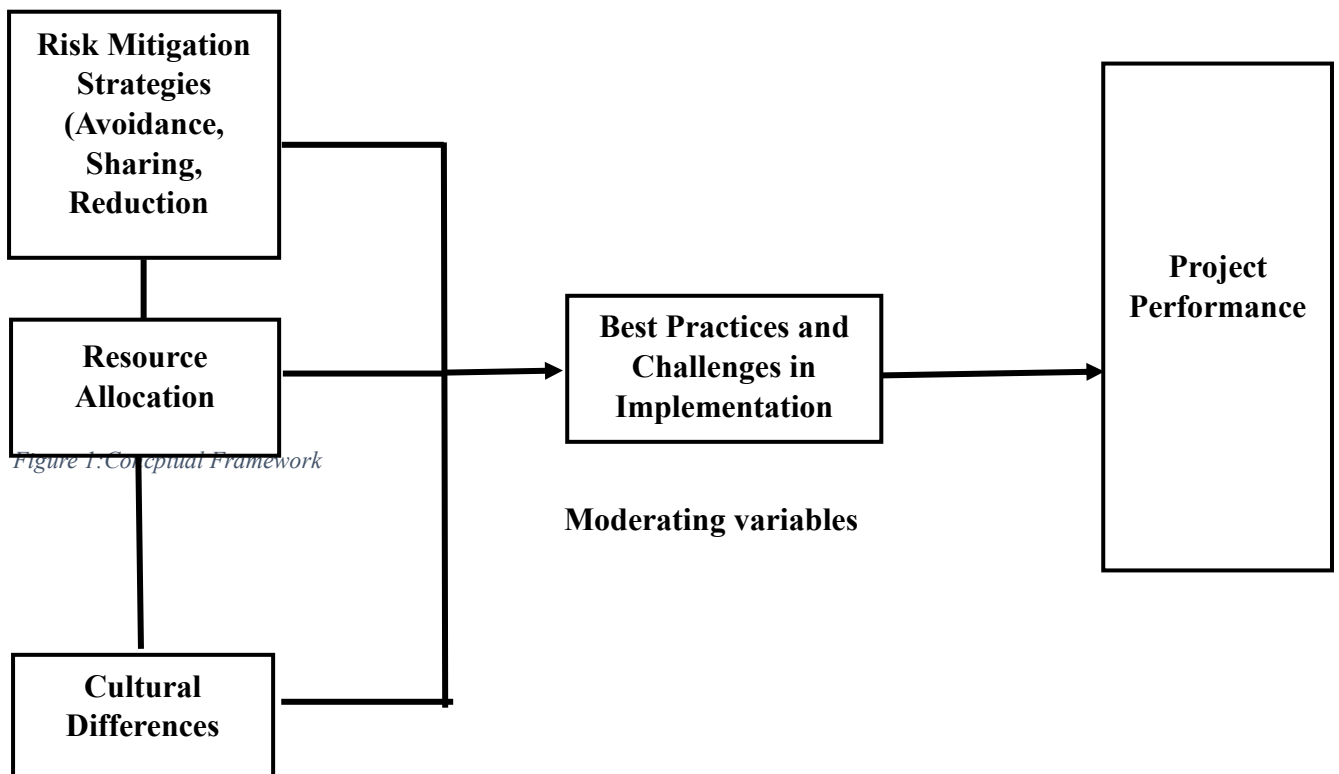


Figure 1: Conceptual Framework

2.10 Chapter Summary

The literature review examined risk management strategies across six continents highlighting regional differences shaped by geography and context. North America and Europe emphasize regulatory frameworks, technological innovation and financial risk management. Asia and Latin America focus on environmental risks due to natural disasters while Oceania prioritizes climate change adaptation and public health. In Africa, particularly Zambia limited institutional capacity and resources pose challenges, though government initiatives show progress.

3.0 CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter discusses the research approach, research design, the Study Population sampling methods and sample size adopted by the research. It further, discusses the development of Data Collection/Instruments, the data collection itself and analysis methods utilized in the study. The chapter is finally concluded with the proposed ethical considerations and the study timeframe of research activities.

3.2 Research Philosophy

According to Moon & Blackman, (2017) research philosophy refers to the underlying belief system that guides the research approach and methodology Philosophy provides the general principles of theoretical thinking, a method of cognition, perspective and self-awareness, all of which are used to obtain knowledge of reality and to design, conduct, analyse and interpret research and its outcomes. In this research, a qualitative paradigm is adopted to understand the effectiveness of risk mitigation strategies within project portfolios. The study is guided by four key philosophical assumptions: ontological, epistemological, axiological, and phenomenological. These assumptions are critical in shaping the overall approach to data collection, analysis, and interpretation.

3.2.1 Ontological Assumptions

According to Moon & Blackman, (2017) Ontology is concerned with what actually exists in the world about which humans can acquire knowledge. Ontology helps researchers recognize how certain they can be about the nature and existence of objects they are researching. This study adopted a relativist ontological perspective, which assumes that reality is socially constructed and can differ across individuals and contexts. This is in line with Guba and Lincoln's (1994) assertion that multiple realities exist and are shaped by the perspectives of the individuals involved. In this case, each organization; Brasys, EaRN Zambia, and Seeds of Change has different experiences and approaches to risk management. The study, therefore, acknowledges that there is no single objective reality regarding risk mitigation; instead, realities are fluid and shaped by social interactions and organizational cultures.

3.2.2 Epistemological Assumptions

Epistemology is concerned with all aspects of the validity, scope and methods of acquiring knowledge, such as a) what constitutes a knowledge claim; b) how can knowledge be acquired or produced; and how the extent of its transferability can be assessed. Epistemology is important because it influences how researchers frame their research in their attempts to discover knowledge (Moon & Blackman, 2017) This study is grounded in a constructionist epistemology, which posits that knowledge is created through social interactions and shared experiences (Berger & Luckmann, 1966). The qualitative nature of this research emphasizes the co-construction of knowledge between the researcher and the participants. Through semi-structured interviews, stakeholders involved in project management shared their insights, and the knowledge generated reflected their subjective realities and experiences. According to Lincoln and Guba (1985), the researcher's role is to engage in the process of interpretation to uncover deeper understandings, which fits with the study's aim of exploring how different organizations implement and perceive risk management strategies.

3.2.3 Axiological Assumptions

Axiological research assumptions look at the role that social values play as well as biases that define the narrative and interpretation of phenomena. The axiological dimension considers goals, values, mission statements, objectives, beliefs, and opinions made of those being researched, as well as the interpretations made by the researcher. Axiological research assumes that biases impact not only the behaviours and actions of those being researched but the observation and understanding of the researcher (Kulinska, 2016). This study acknowledged that research is value laden, meaning that both the researcher's and participants values can shape the outcome (Heron & Reason, 1997). Reflexivity was employed to ensure that the researcher is constantly aware of how personal values and biases may influence the research process. Furthermore, the values held by participants shaped by their professional roles, organizational affiliations, and personal experiences were also considered critical in shaping the data gathered and its interpretation (Denzin & Lincoln, 2011). By recognizing these influences the study aimed to maintain ethical integrity and ensure that the findings reflect the stakeholders' experiences.

3.2.4 Phenomenological Assumptions

Phenomenological research investigates deeper into the meanings of phenomenon seeking to understand and report upon people's experiences by asking what is the meaning of this, and then looking to how to describe both the experience and the meaning behind it. There are two

forms of phenomenology, descriptive and interpretive (Matua, & Van Der Wal, 2015). This study is influenced by phenomenological assumptions, which emphasize understanding how participants experience and interpret risk mitigation strategies in their respective organizations. Phenomenology is particularly suited for this research as it allows for an in-depth exploration of the stakeholders lived realities concerning risk management practices. By prioritizing subjective experiences, the study aimed to generate rich, detailed data that captured the complexity of risk mitigation strategies across different organizational contexts (Smith, Flowers, & Larkin, 2009). This approach aligned with the study's qualitative nature, allowing the researcher to uncover the meanings that participants attach to their experiences.

3.3 Research Approach

This research was conducted through the use of qualitative methods to gain relevant information. According to Babbie and Mouton (2001), qualitative research refers to a generic research approach in social research according to which research takes its departure point as the insider perspective on social action. This study adopted a qualitative research approach to examine the effectiveness of risk mitigation strategies within project portfolios in Zambia. Qualitative research enables an in-depth exploration of stakeholder insights, perspectives and experiences, providing rich data for comprehensive analysis. This approach is well suited in understanding and in the uncovering of risk management practices in the context of development projects. The goal was to gain a deep and detailed understanding of how risk mitigation strategies are implemented as well as perceived by those directly involved in project management in these organizations. In addition, qualitative research allows for flexibility enabling the researcher to adapt data collection methods based on emerging themes and insights during the study.

3.3 Research Design

According to Cooper & Schindler (2014) who stated that a research design is the road map or guide on how a field study will be carried out. For this research, a **multiple case study design** was adopted focusing on 3 organisations that is Brasys, EaRN Zambia and Seeds of Change. This research design allowed for an examination of risk mitigation strategies employed within these organizations which is comprehensive providing insights into commonalities and differences in their approaches. According to Yin (2009), a case study design is appropriate when the researcher seeks to conduct an in-depth investigation into specific real-life phenomena within their natural contexts. Kothari (2004) further states that a research design is the conceptual structure within which research is conducted it constitutes the blue print for the

collection, measurement and analysis of data. The multiple case study research design is useful for comparative analysis as it enables the researcher to explore how different organisational contexts and operational dynamics influence risk management practices. According to Stake (2006) who says that a multiple case study enhances the robustness of research findings by allowing cross case comparisons which help in identifying themes and patterns. In this study being conducted each organization served as a separate case, and the comparative analysis highlighted variations in risk mitigation strategies, how they engage with stakeholders and the decision-making processes across different organizational environments. This research design did not only allow for a deep understanding of the organizations risk management strategies but also facilitated the generation of actionable insights that can inform policy and practice in similar development projects across Zambia and other developing contexts.

3.4. Study Population

According to McMillan & Schumacher (2001) who state that a study population is a set of cases objects or events of interest to the researcher; from which he or she wants to draw a sample and to which the research findings would be generalisable. For this research, the study population included key stakeholders involved in risk management and project management within the 3 selected organizations. This included executive directors/country directors, program managers, finance and operations managers, communications officers, program officers, knowledge management officers and quality assurance officers. These individuals are integral to the implementation of risk management strategies and decision-making processes within their respective organizations. Their insights and experiences were important in understanding the effectiveness of these strategies in different organizational contexts.

3.5. Sample Size

According to Mugenda (2005), a sample size determines the precision with which population values can be estimated. Experts emphasize that the sample must be reasonably large to obtain accurate estimates while remaining manageable for qualitative analysis.

For this study, the total population consisted of 33 employees across three organizations: Brasys (9), Seeds of Change (18), and Earn (6). To ensure fair representation, a proportional stratified sampling approach was applied within a purposive sampling framework. The sample size was determined using the formula:

$$n_i = \left(\frac{N_i}{N} \right) \times n$$

Where:

- n_i = sample size from organization i
- N_i = total population of organization i
- N = total population across all organizations (9 + 18 + 6 = 33)
- n = total sample size (13)

Applying the formula:

- **Brasys:** $\left(\frac{9}{33} \right) \times 13 = 3.54 \approx 4$
- **Seeds of Change:** $\left(\frac{18}{33} \right) \times 13 = 7.09 \approx 7$
- **Earn:** $\left(\frac{6}{33} \right) \times 13 = 2.36 \approx 2$

Thus, the final sample distribution was:

- Brasys: 4 participants
- Seeds of Change: 7 participants
- Earn: 2 participants
- Total: 13 participants

This sample ensured comprehensive representation from different organizational levels and functional roles, including executive directors/country directors, program managers, finance and operations managers, communications officers, program officers, knowledge management officers, and quality assurance officers. These individuals were selected based on their direct involvement in risk management and project implementation, ensuring that the study captured diverse and relevant perspectives.

The chosen sample size was large enough to capture varied insights yet manageable for conducting in-depth qualitative analysis. By focusing on key stakeholders, the study aimed to

provide rich, detailed data directly addressing the research questions while maintaining methodological rigor.

3.6 Sampling Techniques

The respondents for this study were selected through a purposive sampling, according to Foley (2018) who defines purposive sampling as a form of non-probability sampling in which researchers rely on their own judgement when choosing members of the population to participate in the study. Patton (2002) says that purposeful sampling is a technique widely used in qualitative research for the identification and selection of information rich cases for the most effective use of limited resources This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest says (Cresswell & Plano Clark, 2011). In addition to knowledge and experience, Bernard (2002) note the importance of availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive and reflective manner. For this study a purposive sampling technique was utilized to select participants who possess firsthand information/knowledge as well as experience in risk management and project management in the three organizations being studied. The selection criteria focused on individuals with significant involvement in the decision-making processes related to risk management strategies within their respective organizations. This targeted approach ensured that the sample comprises individuals who provided valuable insights relevant to the research objectives. By focusing on key stakeholders, the study aimed to gather detailed and relevant data that directly addressed the research questions.

3.7 Data Collection/Instruments

For this study the data collection procedures involved semi structured interviews and document analysis. According to Sapsford (2007), a semi structured interview does not have a standard format but there is an agenda that is used as a reminder to ensure that all the basic points are covered. The advantage is that semi structured interviews can give greater depth than a questionnaire because the researcher can probe or encourage respondents to elaborate their answers and also can crosscheck information. Hence for this study, semi structured interviews allowed for open ended discussions with participants facilitating the exploration of their perceptions, perspectives and experiences regarding risk mitigation strategies. This format provided the flexibility to probe deeper into specific areas of interest while maintaining a consistent structure across interviews. In addition, Weiss (1998) suggested that documents are a good place to search for answers. They provide a useful check on information gathered in an

interview. He further added that when other techniques fail to resolve a question, documentary evidence can provide a convincing answer. Hence for this study, document analysis involved reviewing project documents, reports and risk management plans to supplement and validate interview findings. This approach provided additional context and helped in triangulating data from the interviews which enhance the credibility of the research findings.

3.8 Data Analysis

According to Braun & Clarke, (2006) who stated that thematic analysis is used to generate themes which capture a phenomenon which are then explained, It is a method used to identify, analyse and report themes within data. For this study, thematic analysis was utilized to identify patterns, themes and relationships within the qualitative data. This approach involved systematically coding and categorizing data to uncover recurring patterns and emergent themes related to the topic being studied which is risk mitigation strategies. Thematic analysis is particularly suited to qualitative research as it allows for detailed examination and interpretation of data which is complex. Rigorous procedures which included multiple coding and data triangulation was followed to ensure the credibility, reliability and validity of the findings. The final themes offered insights into the effectiveness of risk mitigation strategies and their impact on project performance providing a comprehensive understanding of risk management practices within the selected organizations.

3.9 Ethical Considerations

According to Badley (2014) who stated that the ethics of qualitative social research rest upon the key principles of not causing harm and promoting the interests of the participants. This study strictly adhered to ethical principles to ensure that the study participants rights and their privacy was being respected. The guidelines of beneficence, non-maleficence, confidentiality, privacy as well as informed consent were closely followed to mitigate any ethical risks.

3.9.1 Confidentiality and Privacy: To protect participants privacy for this study all personal data was kept confidential. This means that any identifying information was anonymized, with participants assigned pseudonyms to ensure that their identities remain hidden throughout the research. Data was securely stored, access to the data was restricted to the researcher and relevant supervisors. Privacy was also a priority during data collection, as interviews were taking place in private and comfortable settings to encourage honest and open participation.

3.9.3 Informed Consent: Before participation, detailed information about the research, including its purpose, procedures, risks and benefits were shared with all participants. They

had the opportunity to ask questions and withdraw from the study at any time without any negative consequences. Written informed consent was obtained from all participants ensuring they fully understand the research and voluntarily agree to participate.

3.9.4 Ethical Conduct: Ethical approval for the research was obtained from the UNILUS Ethics Committee and was granted on the 15 of December 2024 to ensure compliance with recognized ethical standards. Throughout the research process, transparency, fairness and respect guided all interactions with participants ensuring that ethical considerations are upheld at every stage.

3.12 Chapter Three Summary

Chapter 3 outlined the research methodology used to investigate the effectiveness of risk mitigation strategies within project portfolios. It adopted a qualitative research approach guided by ontological, epistemological, axiological and phenomenological assumptions to explore stakeholder experiences. A multiple case study design was employed focusing on Brasys, EaRN Zambia and Seeds of Change with a sample of 13 key stakeholders from the 3 organizations. For this study the data collection involved semi structured interviews and document analysis with thematic analysis applied to identify patterns and themes. Ethical considerations including confidentiality and informed consent were carefully addressed which ensured responsible and respectful research practices.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS.

4.1 Introduction

This chapter presents the study findings and analysis derived from the study process. It addresses the study's objectives in a systematic way by analysing qualitative data which derived from interviews with stakeholders from EaRN Zambia, Seeds of Change as well as Brasys and insights were integrated from the desk review. The data analysis presented in this report identifies themes and patterns relevant to risk mitigation strategies, challenges, opportunities and stakeholder involvement. Some Quantitative data is also visualized through charts and tables to enhance understanding while qualitative data are supported by direct quotations for depth and context.

4.2 Organization of the Chapter

The findings are structured to address the following research objectives:

- I. To assess the effectiveness of risk mitigation strategies in project portfolios.
- II. To Identify challenges and barriers to risk management.
- III. To explore opportunities for improving risk mitigation strategies.
- IV. To understand stakeholder involvement and decision-making processes in risk management.

Each study objective is discussed in a separate section supported by themes and patterns derived from the analysis of both primary and secondary data.

4.3 Data Analysis Process

The data analysis process in this study followed a structured approach. First, the data was familiarized through a review and transcription of interview recordings. Thematic coding was then applied where data was categorized into pre-determined themes aligned with the research objectives with open coding capturing any emergent themes. To ensure validity triangulation was employed by cross referencing interview findings with document reviews. Thematic analysis played a key role in interpreting qualitative data helping to explore patterns and trends in a comprehensive manner.

4.4 Presentation of Findings

This section presents the study's key findings, highlighting the effectiveness of risk mitigation strategies, challenges faced, opportunities for improvement, and stakeholder involvement. The results are analysed based on organizational practices, frameworks, and stakeholder insights to provide a comprehensive understanding of risk management effectiveness.

4.4.1 Effectiveness of Risk Mitigation Strategies

4.4.1.1 Adaptive Strategies;

One of the recurring themes that emerged from the open coding of the interview data was the use of strategies that are adaptive. The Interview participants frequently emphasized the importance of approaches like scenario planning, conducting risk audits and maintaining flexibility in their methods of implementation. For example, many of the interviewees shared how planning for uncertainty has become an important part of their workflow which enables them to respond effectively to challenges which are unforeseen. By grouping related codes like planning for uncertainty, regular reviews and adaptive measures it became evident that adaptability is not just a theoretical concept but a crucial lived practice for those involved in the study. Their insights reveal a strong commitment to navigating complex environments with foresight and agility.

4.4.1.2 Stakeholder Engagement;

This theme of stakeholder engagement emerged as an important insight from the interview data grounded in the repeated mentions of the importance of involving key decision-makers, the partners and beneficiaries in risk mitigation strategies. The study participants emphasized consistently how collaboration fosters accountability as well as shared ownership with some of the participants sharing specific examples of how engaging a diverse group of stakeholders had led to more robust and effective outcomes. Codes such as inclusive decision making and approaches that are collaborative were grouped together to form this category reflecting a collective emphasis on the value of inclusivity. These insights derived from the participants highlight how important that stakeholder engagement is not just as a step which is procedural but a critical component in the designing of strategies that are practical as well as sustainable.

- **Capacity Building:** The theme of capacity building initiatives surfaced strongly in the data from the interviews as the study participants frequently pointed to insufficient training opportunities as well as the lack of investment in developing human resources. Many of them shared personal accounts of challenges stemming from the absence of structured programs to enhance their skills or foster their professional growth. For example, some participants expressed a frustration over the limited availability of

formal training while others highlighted the impact of inadequate funding for capacity building efforts on overall organizational performance. Codes such as no formal training, limited skill development and lack of funding for capacity building initiatives were consolidated to form this theme which underscores the critical gap in empowering individuals to effectively address challenges as well as drive innovation within their roles. This reflects a larger need for a sustained commitment to human resource development as a cornerstone for success.

4.4.2 Discussion of the Findings:

- For EaRN Zambia: During the study the findings revealed that the organization employs adaptive strategies such as scenario planning, the development of quality benchmarks for activities, community involvement in risk identification, conducting pre-implementation risk assessments, risk audits and conducting frequent project evaluations. A Senior Programs Officer highlighted, *“Scenario planning has been very important in mitigating financial and operational risks that we have faced in our portfolios, through this planning we are able to identify critical uncertainties that might affect our projects and we also develop plausible scenarios in order to discuss the impacts and the responses to give for each one of these identified uncertainties.”*
- Seeds of Change: During the study the findings revealed that the organizations strategy focuses on education and technical assistance, also utilizing strategies like community-based risk assessments and contingency planning. The Program Manager stated, *“We use community-based risk assessments, we also incorporate local knowledge into our planning, and as well as programming and we employ contingency plans for climate and agricultural risks. In the training programs we conduct, also ensure stakeholder preparedness. We integrate education into every aspect of risk management ensuring that communities are empowered to respond effectively to challenges which are uncertain for us these strategies have proven adaptable and responsive, especially in mitigating climate-related and as well as the operational risks we face in our agriculture and education programs portfolios”*
- Brasys: The findings reveal that Brasys Initiatives emphasizes data-driven decision-making, robust M&E systems, regular risk assessments, adaptive program management, stakeholder consultations, and contingency planning. The Senior Programs Coordinator noted, *“Our systems allow us to continuously monitor risks and adapt strategies as needed. We conduct regular risk assessments and consult our*

various stakeholders in the projects we implement and these strategies have been instrumental in minimizing disruptions and ensuring the continuation of our projects, especially in environments that are dynamic”

4.4.2.1 Quantitative Visualization:

This chart below is illustrating the levels of involvement of key stakeholders including Executive Directors, Program Managers and field staff. It is highlighting the dominance of top level decision makers and the limited participation of lower level staff in risk mitigation strategies.

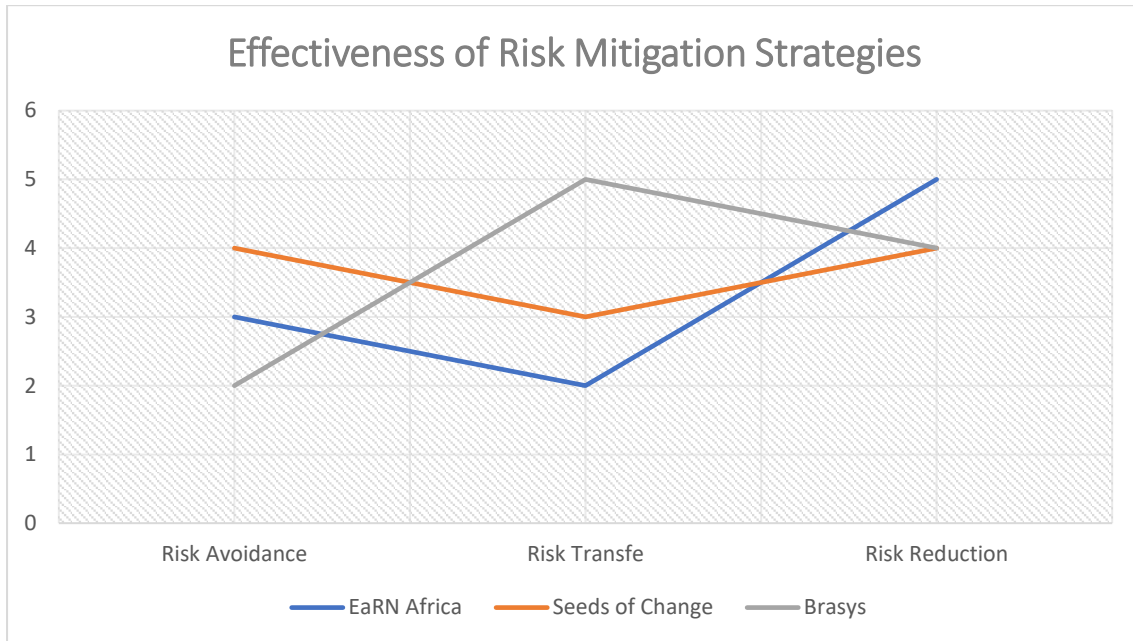


Figure 2: Chart showing the effectiveness of risk mitigation strategies: This chart below displays the frequency of risk assessments across the organizations showing that quarterly reviews are most common. This emphasizes the importance of periodic evaluations in identifying emerging risks and refining mitigation approaches.

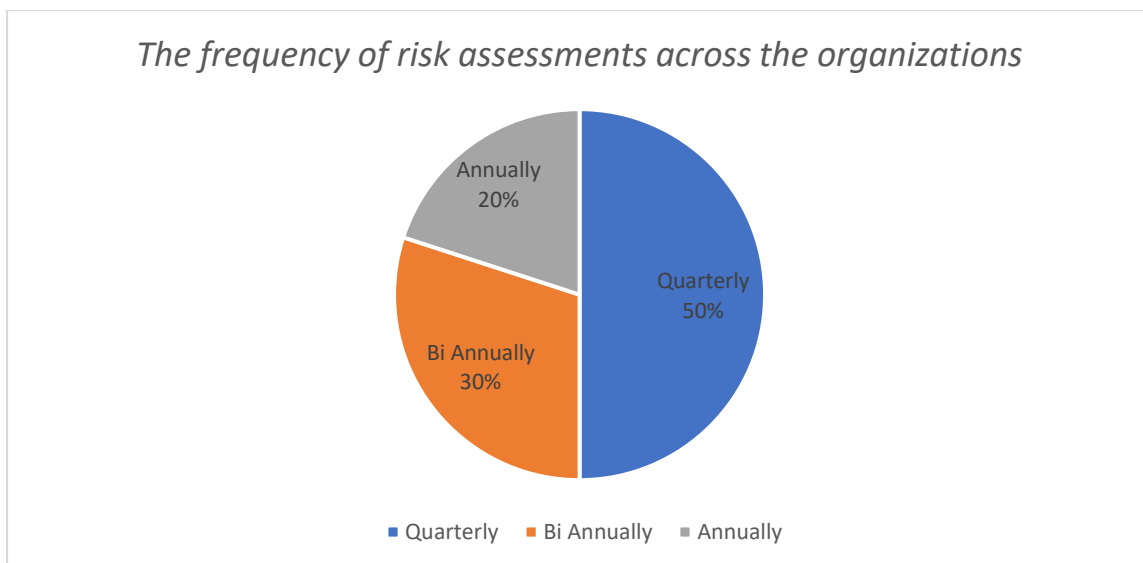


Figure 3: chart showing the frequency of risk assessments across the organisations

4.4.3 Challenges and Barriers to Risk Management

- **Resource Constraints:** This theme of resource constraints emerged prominently from data collected from the interviews as the study participants frequently described the challenges posed by inadequate funding, budget limitations and as well as difficulties in resource allocation. Many of them shared real world examples of how these constraints hindered their ability to implement projects effectively or achieve the desired outcomes. For example, some of the study participants highlighted the impact of insufficient funds on initiatives that involved of scaling while others discussed the strain caused by resources which were scarce on day-to-day operations. Codes like insufficient funds, scarce resources, and financial bottlenecks were grouped to define this theme this emphasized how financial limitations create significant barriers to progress.
- **Resistance to Change:** This theme of resistance to change emerged as a key insight from the data from interviews driven by frequent references to the reluctance of the members of staff and stakeholders to embrace new practices or strategies. The study participants often shared experiences of pushback which they encountered when introducing innovations with some of the participants attributing this hesitation to a fear of change or a strong attachment to established ways of working and systems. Other participants noted the influence of cultural barriers that reinforced practices and hindered the adoption of new approaches. By synthesizing codes such as fear of change, habitual practices and cultural barriers, this theme was developed and it captures the complex dynamics that can impede and delay progress.
- **Operational Complexity;** This theme of operational complexity emerged from the descriptions of participants who described the challenges involved in managing activities that were geographically dispersed and as well as achieving effective sectoral integration. Many of them shared accounts of the difficulties in coordinating across multiple sectors which highlighted the need for extensive collaboration and alignment among diverse stakeholders. Some logistical challenges such as ensuring timely resource distribution or maintaining communication across distant locations were also frequently mentioned by the study participants as barriers to efficiency. Codes like multi sector coordination and logistical challenges were grouped to define this theme reflecting the complicated nature of operations that require careful planning and execution. These insights highlight the need for process which are streamlined and as

well as enhanced coordination mechanisms to address the complexities inherent in such endeavours streamlined processes.

4.4.3.2: discussion of Findings:

EaRN Africa.

- During the study Financial and resource constraints emerged as a significant challenge for EaRN Africa particularly in the organisations ability to execute timely and effective risk mitigation strategies. The study participants noted the persistent lack of financial and technical resources as well as the inadequacy or lack of tools necessary for comprehensive risk analysis. The Finance Officer highlighted the impact of budget limitations, stating, *“We often face delays in risk mitigation due to limited budgets delays in resources, for example in one of our projects where we are looking at strengthening the capacity of health workers because our project is aimed at improving health system resilience, we experienced some delays which were unexpected delays and the occurred due to challenges with external suppliers capacity building resources. These essential project materials I have mentioned were delayed which disrupted the overall timeline and hindered the team’s ability to achieve critical project milestones and affected per deliverables.”*

These above challenges above underscore the importance of enhanced resource mobilization in organizations and the need for a robust financial planning to mitigate such risks effectively.

- Seeds of Change:

The study revealed that Seeds of Change faces several external and internal challenges in implementing its initiatives. External shocks such as droughts or economic instability significantly impact the operations of the NGO while limited funding hampers programs to be scaled up. The study also revealed that cultural resistance to certain innovations also poses barriers particularly in introducing new technologies. The Communications Officer shared a common concern and remarked that: *“Some of our stakeholders the people we work with are sometimes hesitant to transition to digital risk management tools. For example, we had a community-based biofuel stove program in the rural areas, this program faced resistance due to the initial proposed costs of the stoves and as well as the lack of understanding among community members about their long-term benefits”*.

Despite these obstacles these insights highlight the need for strategies that are targeted in addressing cultural barriers and also the importance of clear communication to foster stakeholder buy in and support with such programs

Brasys Initiatives:

- The findings from the study reveal that Brasys encounters significant challenges in managing resistance to change particularly among local stakeholders, this resistance is compounded by the inadequacy of risk assessment tools to address complex and evolving scenarios. Limited financial resources further constrain their ability to address unexpected risks effectively. Managing operations across diverse regions and sectors adds a layer of complexity with operational challenges becoming particularly acute in multi geographic projects. The Project and Admin Officer reflected on this,, *“Operational complexity in managing multiple geographies can be overwhelming.” One notable instance involved delays in the delivery of essential training materials, which impacted a major health worker capacity building project due to in passable roads in Luwingu district. After the rains it was impossible to get our materials to schools like Ndoki, hence our deliverables were delayed.*

4.4.3.2.1 Quantitative Visualization

This visualization below outlines the major challenges faced such as resource constraints, resistance to change and operational complexity. It shows the need for tailored solutions that address organizational and contextual limitations.

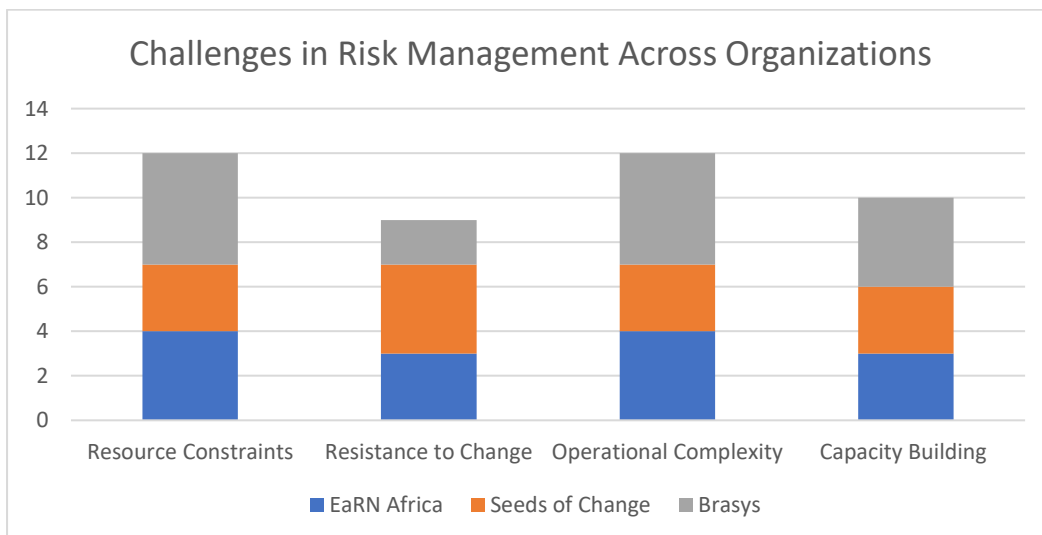


Figure 4: chart showing the challenges in risk management across the organisations

4.4.4 Opportunities for Improving Risk Mitigation Strategies

- Leveraging Technology; the findings reveal that the theme of leveraging technology emerged from participants discussions on adopting digital tools and data driven methods to enhance risk mitigation efforts. Many of them highlighted the potential of predictive analytics and digital transformation in improving efficiency and decision-making processes. For example, the study participants shared how including technology into workflows has streamlined operations and reduced response times. By combining codes such as predictive analytics, digital transformation and technology for efficiency this theme was developed.
- Strengthening Partnerships: the findings reveal that theme of strengthening partnerships was derived from study participants frequent references to collaboration with resource partners, donors, government agencies and local organizations. Many of them shared examples of how joint bids, initiatives and synergies with key stakeholders have enhanced the effectiveness of risk mitigation strategies. For instance, the organizations described partnerships as a vital mechanism for sharing expertise, pooling resources and addressing challenges collectively. The study grouped Codes like collaborative efforts, partnership synergies and joint initiatives to form this theme.
- Enhanced Training Programs: the findings reveal that the theme of enhanced training programs emerged from participants suggestions about the need for structured skills development and as well as continuous learning and education. Many of them emphasized the importance of workshops and capacity building initiatives to equip the staff with the tools and also the knowledge required to address risks effectively. Specific examples included calls for tailored training sessions that address both technical and contextual challenges faced by teams. Codes such as training needs, workshops and capacity building initiatives were grouped together to form this theme.

4.4.4.1 Discussion of Findings:

- **EaRN Zambia:** a major opportunity identified at EaRN is the adoption of predictive analytics in order to enhance risk anticipation and as well as preparedness. During the interviews a Knowledge Management Officer noted; *“Investing in advanced analytics can help us anticipate risks better ‘as an NGO, because this reflects our organizations growing recognition of the potential for technology to transform risk management. Predictive analytics could enable EaRN to identify emerging risks very early, analyze historical data and then create dynamic risk scenarios. An example would be by*

integrating predictive tools into project management our organization could proactively allocate resources to mitigate potential issues before they escalate”

The broader organizational culture at EaRN which emphasizes data driven decision making, supports this approach. However it was also acknowledged that the adoption of predictive analytics would require investments in both technology and staff training to ensure effective implementation. A Program Manager added, *“While the potential is immense i feel we need to ensure our team is equipped to interpret and act on the data.”*

This highlights the dual need for technological advancements and capacity building within the organization.

- **Seeds of Change:** For Seeds of Change strengthening multi sectoral collaborations emerged as a central opportunity to address risk more effectively. The Quality Assurance Officer shared, *“Collaborating with other NGOs can enhance our capacity to address risks by pooling expertise, and sharing innovative practices this will lead in overcoming resource constraints and underscores the value of partnership. By forming alliances with governmental agencies, private sector partners and other NGOs, a t Seeds of Change we aim to create a more robust support network to manage risks collectively.*

Multi-sectoral collaboration is not new to Seeds of Change but participants emphasized that current efforts could be more strategic and focused. A Finance and Operations Manager remarked, *“Our partnerships have often been ad hoc, we need to formalize these relationships with clear objectives and shared accountability by creating institutionalize collaboration through Memorandums of Understanding (MOUs)”*.

In addition the study participants suggested, that such collaborations could extend to engaging community-based organizations to ensure that risk mitigation strategies are grounded in local contexts. A Program Officer noted, *“i believe that we must involve local communities more systematically. Their insights and views are invaluable in identifying and mitigating risks especially those specific to their realities.”*

- **Brasys:** The findings revealed that at Brasys, improving staff training on risk management was identified as a priority. The Programs Coordinator (Technical) stated, *“Comprehensive training programs will empower our staff to handle risks more effectively. If this happens it will directly reflect an organizational commitment to*

equipping employees with the skills needed to navigate the complexities of risk management. The study participants highlighted that while Brasys already provides some training there is room to expand both the scope and depth of these efforts by the organization. For instance, staff suggested that training programs should include modules on emerging risks, such as cybersecurity threats and the impacts of climate change alongside traditional project risks. A Communications Officer stated that; *“Our team needs to be prepared for risks that were not even on the radar five years ago an example is the recent pandemic where we had to be reactive and not proactive in project implementation. We need to be proactive because It’s about future proofing the worl we do.”*

This recognition of evolving risk landscapes underscores the importance of continuous learning and adaptability, moreover, several study participants advocated for a more inclusive approach to training ensuring that not only senior management but also frontline staff are equipped with risk management knowledge. A Quality Assurance Officer stated that; *“Every team member plays a role in managing risks so training must be holistic and inclusive not just senior staff but also our staff in the frontlines.”* This suggestion aligns with the organization's broader goal of fostering a culture of shared responsibility for risk management.

4.4.5 Stakeholder Involvement and Decision Making

- **Stakeholder Roles:** The theme of stakeholder roles emerged from the study participants accounts of the unique contributions of various organizational members to risk mitigation efforts. Many them highlighted the importance of clearly defining responsibilities especially in the job descriptions which ensures accountability and effectively delegating tasks to achieve outcomes which are desired. Codes such as role clarity, responsibility delegation and stakeholder accountability were grouped to form this theme.
- **Frequency of Reviews:** The frequency of reviews theme was derived from participants of the studys emphasis on the periodic nature of risk assessments and the importance of regularly evaluating strategies to ensure their continued relevance and as well as effectiveness. Examples of monthly reviews, quarterly assessments and annual evaluations were frequently mentioned as critical practices. These references were grouped into this theme using codes such as monthly reviews, quarterly

assessments/and annual evaluations, underscoring the value of regular monitoring in adaptive risk management.

- **Inclusivity in Decision Making;** The theme of inclusivity in decision making was identified from study participants discussions on efforts to involve diverse stakeholders including the marginalized and vulnerable groups in the strategic process. Many of the participants shared examples of how participatory approaches and broad stakeholder engagement fostered more equitable and effective outcomes. Codes such as inclusive practices, broad stakeholder engagement and participatory approaches were grouped to form this theme,

4.4.5 Discussion of Findings:

The study revealed a disparity which was pronounced in decision making roles across the hierarchies of the organization. Executive Directors and Program Managers consistently rated their involvement in risk management decision making as high (4-5 on a scale of 1 to 5) emphasizing their strategic oversight in shaping policies and responding to emerging risks. One Program Manager from EaRN Zambia remarked, *“Decisions on risk mitigation often fall under senior managements purview because they align with strategic goals and resource allocation, hence oversight is needed”*

In the contrast, the involvement of field staff and lower-level employees was perceived as moderate (rated 3-4). While these individuals often serve as the eyes and ears on the ground their input into critical decisions appeared to be very limited. A Communications Officer from Seeds of Change noted, *“We do gather valuable data from field teams for reporting but it does not always translate into actionable decisions at the management level.”* This sentiment highlights a missed opportunity to integrate ground level insights into strategic planning.

The findings suggest a need for a more inclusive approach that empowers all staff levels to contribute meaningfully to decision-making. A Senior Programs Coordinator at Brasys admitted by saying, *“While we rely on our lower level staff that’s the clerks and associates and officers to identify risks early i can say that their recommendations are often filtered through multiple layers before they reach us, i admit this sometimes dilutes their impact”*.

The study identified quarterly reviews as the most common practice for evaluating risk mitigation strategies in these organizations . These reviews provide a structured opportunity to assess progress, identify emerging risks and remedy and recorrect strategies. A Knowledge Management Officer from EaRN Zambia explained, *“Our reviews which we have after 3*

months are a cornerstone and very important part of our risk management process. They help us stay agile in a rapidly changing environment. Especially with the shrinking donor space and stiff competition from other organisations for all competing for resources”

However, there were differences in the perceived effectiveness of these reviews across organizations. For instance at Seeds of Change, some study participants felt that the frequency was insufficient for high risk projects. A Quality Assurance Officer suggested *“While quarterly reviews are the standard in most institutions certain projects would benefit from monthly check ins to address risks in a more proactively manner.”*

The study also highlighted the role of technology in enhancing the review process. Brasys has recently adopted a digital project management tool to streamline risk assessments during these reviews. A Program Officer shared, *“This digital tool which we adopted has significantly improved our ability to track risks and implement timely interventions and responses to these risks that we might face in our project portfolios.”*

The degree of inclusivity in decision making varied across the three organizations, with the lower-level staff often feeling undervalued. This was particularly evident at EaRN, where a director observed that; *“While the insights of our juniors is very valuable, these insights are sometimes not always prioritized in decision making. As well as driving organizational strategy”*

The Lower-level staff reported feeling that their firsthand experiences with on the-ground challenges were sometimes overlooked in Favor of top-down directives. A Field Officer at Seeds of Change commented that, *“We’re the ones dealing with community stakeholders daily on the ground, we identify and are faced with some problems yet some of our recommendations are sometimes dismissed as impractical.”*

At Brasys Zambia, efforts to promote inclusivity have been more pronounced. A Program Manager highlighted, *“We’ve recently implemented feedback sessions where data clerks in the field can directly share their observations with senior management some of these feedback sessions are conducted on a daily basis for some of our projects that need daily reporting, at these meetings we are able to identify potential risks and address challenges. This has improved both morale and decision outcomes for us.”* Nonetheless, even here participants acknowledged room for improvement particularly in ensuring that all feedback is given equal weight during deliberations with their entities.

4.4.5.1 Quantitative Visualization:

The chart compares the effectiveness of different risk mitigation strategies, including risk avoidance, transfer, and reduction. It highlights variations in strategy success across organizations, reinforcing the need for adaptable and data-driven risk management approaches.

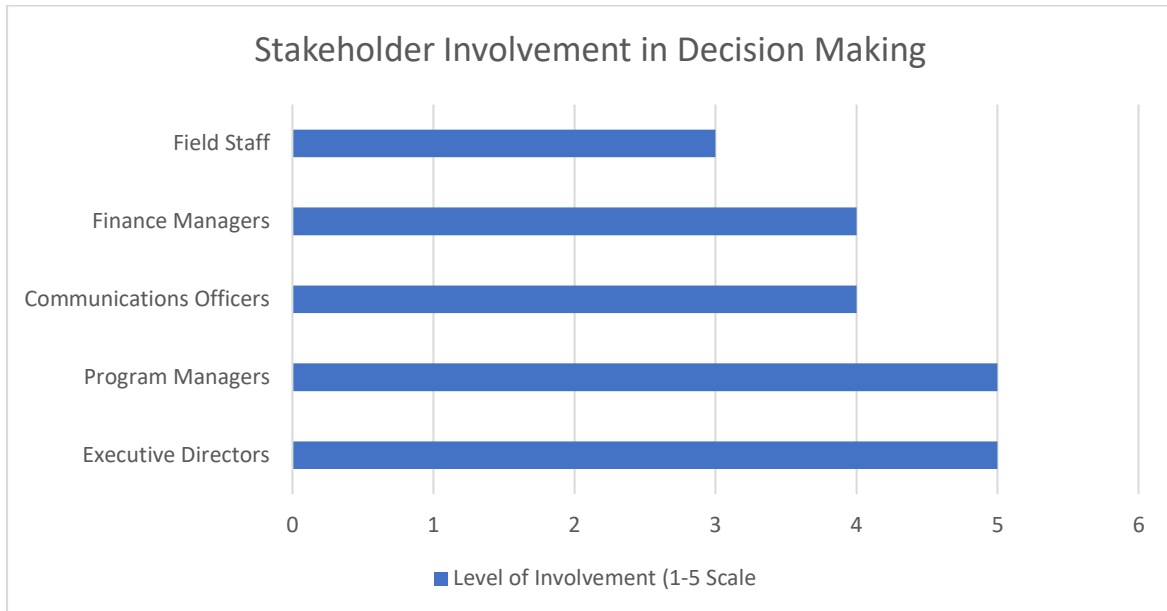


Figure 5: Chart showing stakeholder involvement in decision making

4.5 Document Review and Findings

The document review provided critical insights into the formal risk mitigation frameworks and policies which guild these 3 organisations. Key documents included Project Proposals, Grant Applications, Standard Operating Procedures (SOPs) and Annual Strategic Plans which outlined the organizations risk management approaches. EaRN Zambia’s Monitoring & Evaluation (M&E) Framework and Stakeholder Engagement Plans emphasized structured risk identification and scenario planning confirming its proactive approach to risk mitigation. Seeds of Change’s Security & Safety Policies, Crisis & Emergency Response Plans and Environmental & Social Impact Assessments (ESIA) reinforced its commitment to community driven risk preparedness. Brasys’ Data Protection & Cybersecurity Policies, Fraud & Corruption Prevention Frameworks and Financial Management Policies highlighted its reliance on technological solutions for risk mitigation.

4.5.1 Findings from Document Review

The documents confirmed that all 3 organisations had formal risk policies in place but gaps were evident. EaRN Zambia’s policies lacked detailed financial risk management measures while Seeds of Change faced challenges in fully implementing its crisis response plans and Brasys data security protocols were strong but had limited staff training provisions. In addition,

some Partnership Agreements and Donor Contracts lacked explicit clauses on risk sharing, creating potential vulnerabilities. This review validated qualitative findings confirming that while risk management structures exist enforcement and adaptation remain key challenges.

4.6 Contextualizing Findings

The findings reflect the broader socio economic and organizational realities within Zambia, highlighting persistent challenges such as limited resources, fragmented data and complex operational environments. Despite these common difficulties each organization navigates them in unique ways. For instance, Brasys initiatives places a strong emphasis on leveraging data systems to inform decision-making, while Seeds of Change prioritizes education focused strategies to foster innovation and community engagement and EaRN Africa's adoption of adaptive strategies like scenario planning and regular risk audits showcases their proactive approach to risk management positioning them to anticipate and respond effectively to evolving challenges. These diverse approaches demonstrate the importance of tailoring risk management strategies to align with each organizations mission and operational environment. The insights underscore that effective risk management is not a one size fits all solution but rather one that requires sensitivity to the specific challenges and opportunities present in each context.

4.6 Chapter Summary

This chapter presented a comprehensive analysis of the data structured around the research objectives and presented findings on risk mitigation strategies across EaRN Zambia, Seeds of Change and Brasys. Key themes were identified and the insights highlighted unique organizational approaches, resource constraints and opportunities for enhancing decision making and inclusivity. Key findings highlighted the effectiveness of adaptive strategies, the challenges related to resources and opportunities for leveraging technology and partnerships. These findings provide a foundation for the discussion in Chapter 5.

CHAPTER 5:

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discusses the findings from Chapter 4 in relation to the research objectives, questions and existing literature. The findings underscored the varying effectiveness of risk mitigation strategies employed by EaRN Zambia, Seeds of Change and Brasys. Key themes explored include adaptive strategies, stakeholder roles, frequency of reviews, inclusivity, resource constraints, operational complexity, resistance to change, leveraging technology, strengthening partnerships and enhancing training programs. The analysis connects these themes to theoretical frameworks and practical implications, contextualizing them within Zambia's socioeconomic landscape and the broader risk management field. Limitations and recommendations for future research are also presented.

5.2 Linking Findings to Research Questions and Objectives

This section connects the study's findings to the research questions and objectives, analyzing how risk mitigation strategies, challenges, opportunities, and stakeholder involvement align with the study's aims. It highlights key insights that contribute to understanding effective risk management within the organizations studied.

5.2.1 Effectiveness of Risk Mitigation Strategies

This section explores the effectiveness of the risk mitigation strategies employed by EaRN Zambia, Seeds of Change and Brasys highlighting how their distinct approaches reflect adaptive strategies aligned to organizational contexts and operational challenges. These strategies while varying in design collectively illustrate the significance of contextual adaptation, stakeholder involvement and the leveraging of innovative practices in effective risk management.

When these organisations are faced with risks and uncertainties such as operational risks, EaRN Zambia indicated that they employed scenario planning as a proactive strategy for risk mitigation address in order to address operational risks making the organization to position itself to anticipate potential threats as well as help in developing contingency measures. For the organisation this approach has ensured operational continuity even in the face of uncertainties showcasing the organizations' ability to creatively mitigate challenges. A Knowledge Management Officer at the organization emphasized that scenario planning as a risk a mitigation strategy empowered them to make informed decisions during times of crises thus enhancing their strategic adaptability for success. However, it was indicated that the

effectiveness of this method was limited by financial constraints that restricted the full implementation and scaling of the approach. Despite these challenges EaRN Zambia demonstrated that knowledge systems and strategic foresight could be instrumental in navigating operational risks effectively.

On the other hand, Seeds of Change adopted different tools for risk mitigation but yet equally impactful approaches by focusing on community empowerment and education as areas for risk mitigation. The organization cultivated a culture of ownership and proactive problem solving among its beneficiaries by fostering local capacity and encouraging community participation amongst their beneficiaries. One of the quality assurance officers at the organisation highlighted and stated that engaging the local communities as part of the solution to risk mitigation promoted sustainable risk management from within. Nonetheless, it was said that this strategy encountered resistance when technological innovations for risk monitoring and reporting were introduced in their project portfolios. In order to address these challenges, the organisation enhanced its training initiatives and identified what it called as local community champions amongst its beneficiaries in order to foster trust and acceptance of these new technologies thereby the organisation was able to demonstrate resilience and adaptability in its approach.

On the other hand, Brasys leveraged technology and data analytics to strengthen its risk management framework where it integrated real time monitoring systems that significantly improved its capacity to identify and address threats that were emerging and that would affect the organisation. The Programs Coordinator at the organization noted that data systems helped map out areas of need and enabled the organization to allocate resources more effectively shifting from being reactive to a more proactive preventive management of risks that the projects portfolios would face. However, the organisation faced some operational complexities and challenges in synchronizing data systems across multiple sectors such as health, social protection and education which posed persistent challenges. Brasys acknowledged the need for continued investments in staff training and technological upgrades to sustain the effectiveness of the organisations data driven risk mitigation practices.

Across these three organisations some common themes actually emerged despite their different approaches to risk mitigation. Adaptation to contextual realities proved very important to the three as each organisation aligned its strategies with Zambia's socioeconomic environment. Stakeholder engagement consistently played an important role in the success of risk

management efforts which emphasized the importance of inclusive practices across organisational hierarchies. In addition, leveraging innovative solutions especially in technology was an element that was recurring and which showcased potential for future improvements in risk management practices.

The findings from this study demonstrated that context sensitive tailored strategies are important and as well essential for mitigating risks effectively and also sustaining organisational resilience. They advance the understanding of risk management by illustrating and showing how diverse approaches when adapted to specific organisation missions and environmental challenges can achieve effective outcomes which are also sustainable.

5.2.2 Challenges and Barriers to Risk Management

The findings from the study revealed several barriers that hinder effective risk management across the three organisations despite the efforts by the organizations to mitigate challenges. Resource constraints emerged as a pervasive prevalent issue particularly for EaRN Zambia where limited funding restricted the scalability of risk mitigation strategies. A Programs Manager at the organisation highlighted that financial shortfall had an effect on the full implementation of scenario planning initiatives and operational innovations affecting the organisations' ability to maintain proactive risk management measures.

Seeds of Change faced significant resistance to change especially when introducing new technological tools for monitoring and reporting risks. Some community stakeholders were hesitant to adopt these tools fearing disruption to established practices. This resistance slowed the pace of technological integration and underscored the need for sustained capacity building efforts. A senior officer shared that fostering stakeholder trust was essential to overcoming such barriers emphasizing continuous engagement and learning as critical strategies.

Brasys grappled with operational complexities including managing risk across diverse sectors they worked such as health, education, social protection as well as multiple operational sites. The synchronization of data systems in these different thematic areas proved challenging leading to inefficiencies in timely decision making. The organization acknowledged that comprehensive staff training and streamlined processes and systems were essential to mitigating these complexities. These barriers underscore the importance of resource mobilization and fundraising inclusive stakeholder engagement and streamlined operations in overcoming risk management challenges effectively.

5.2.3 Opportunities for Improvement

The findings highlighted several opportunities for enhancing risk management practices across EaRN Zambia, Seeds of Change and Brasys. Leveraging technology emerged as a very important avenue for improvement amongst these organizations. EaRN Zambia identified predictive analytics as a tool with immense potential for anticipating risks and enhancing decision making accuracy. A Knowledge Management Officer noted that advanced analytics could enable the organization to adopt a more proactive approach this in turn will reduce vulnerabilities before they escalate further.

Strengthening multi sectoral collaborations was recognized as a critical strategy by Seeds of Change. The organization emphasized that partnership with other NGOs and community stakeholders could foster knowledge sharing and resource pooling which creates a robust framework for addressing emerging risks. The Quality Assurance Officer emphasized that collaborative initiatives not only build capacity but also enhance resilience through shared responsibility and innovation.

Brasys highlighted the importance of comprehensive staff training programs to empower teams with the skills required for effective risk management. The Programs Coordinator observed that continuous training would ensure staff are equipped to identify, assess and respond to risks swiftly and in a more efficient way.

These opportunities presented underscore the need for organisations to actually embrace technological advancements, as well as foster partnerships with each other and invest in human resource development to strengthen their risk management practices and build resilience in the organizational settings.

5.2.4 Stakeholder Involvement and Decision Making;

Stakeholder involvement and decision-making processes varied significantly across the 3 influencing the effectiveness of risk mitigation strategies. In all 3 organizations, the Senior level staffs like the Executive Directors and Program Managers played central roles in strategy formulation and decision making. Their high level of engagement ensured that key organizational priorities and resource allocations aligned with the ever-changing risk landscape. However, some inconsistencies emerged in the inclusion of lower-level staff in decision making processes.

At Brasys, a Senior Programs Coordinator acknowledged that while insights from field staff were often valuable, they were not always prioritized in organizational discussions. This

limited inclusivity risked overlooking critical on the ground perspectives necessary for comprehensive risk management. Similarly, Seeds of Change faced challenges integrating feedback from community-based stakeholders despite recognizing the importance of these contributions to refining risk strategies. In contrast, EaRN Zambia demonstrated moderate success in integrating lower-level staff perspectives during quarterly review sessions which fostered a degree of inclusivity in discussions.

These findings highlight a critical gap in leveraging diverse perspectives for enhanced decision making. Ensuring broader stakeholder engagement not only improves the quality of risk assessments but also builds organizational commitment to risk management strategies. Moving forward inclusive decision-making practices must be institutionalized to harness the full range of expertise within.

5.3 Comparison with Existing Literature.

The findings of this study align with existing literature this actually emphasizes the importance of adaptive strategies and active stakeholder engagement in achieving effective risk mitigation. Studies by researchers such as Patton (2002) which showed how organizations that adopt flexible approaches and involve diverse stakeholders tend to navigate risks more successfully. This study also reaffirms those principles while contributing unique perspectives specific to Zambia's socio economic and organizational landscape.

On the other hand, Seeds of Changes education centric risk mitigation strategy adds a fresh aspect to this discussion emphasizing the transformative role of knowledge dissemination and as well as community engagement in mitigating long term risks. Unlike more traditional risk approaches focused solely on technological or financial solutions Seeds of Change illustrates the effectiveness of empowering communities through education/learning as a proactive measure. Similarly, Brasys being reliantt on data driven systems extends scholarly discussions around technology's role in risk management showing how data analytics can streamline decision making and enhance operational efficiency in multi sectoral environments.

However, the findings from this study actually challenge existing assumptions regarding the universal applicability of certain strategies. For instance, rresistance to technological innovations and operational complexities at Seeds of Change and Brasys show the contextual barriers that may hinder the implementation of best practices. These insights advance theoretical frameworks by demonstrating and showing how organizational context shapes the

effectiveness of risk mitigation strategies urging a more detailed insight of risk mitigation within environments that are resource constrained.

5.4 Interpretation of Findings

The findings of this study great meaning for understanding the practical application of risk mitigation strategies in project portfolios across diverse organizational contexts. EaRN Zambia's successful adoption of scenario planning highlights the importance of adaptive strategies that enable organizations to remain flexible and responsive to evolving risks. The ability to anticipate and plan for multiple scenarios proved critical in navigating dynamic challenges demonstrating the value of strategic foresight within risk management frameworks.

Seeds of Change illustrated the long-term effectiveness of integrating education and community empowerment into its risk mitigation approach. By fostering community awareness and capacity building the organization not only addressed immediate risks but also cultivated a foundation for sustainable risk management. This aligns with emerging views on the importance of grassroots engagement in strengthening organisational resilience.

Brasys emphasis on technological integration through data driven systems showcased the transformative potential of technology in enhancing decision making and operational efficiency. However, the study revealed that implementing such advancements does not come without challenges. Resistance to technological innovations especially clear in Seeds of Change underscored the significance of organizational culture and stakeholder readiness in determining strategy effectiveness.

These findings connect theory to practice showing how tailored strategies rooted in an organization's context improve risk management. They suggest that while adaptive strategies, education centric approaches and technological tools offer substantial promise their success is heavily influenced by the readiness and culture of both organizations and their stakeholders.

5.5 Practical Implications,

The findings offer practical steps to improve risk management across organizations. For EaRN Zambia investing in scenario planning tools and financial resources will strengthen adaptive strategies and resilience. Seeds of Change should focus on education and stakeholder engagement to overcome resistance and promote technology adoption. Brasys can boost efficiency by expanding staff training to navigate complex risk environments effectively.

These insights highlight the importance of tailored context specific approaches to risk management. By prioritizing adaptability, stakeholder engagement and technological

innovation while addressing unique challenges organizations can foster more effective and sustainable risk management practices across sectors and regions.

5.6 Theoretical Contributions

The study’s findings make important theoretical contributions to risk management literature. They validate adaptive management theories by showing the effectiveness of flexibility and scenario planning in uncertain environments as demonstrated by EaRN Zambia. In addition, Seeds of Change introduces a new framework for long term risk reduction through education and community empowerment broadening traditional risk management approaches. Brasys use of data driven systems highlights the role of technology in managing complex, multisectoral risks while also addressing the challenges of technological integration. These insights refine existing theories and offer fresh perspectives on managing risks in resource-constrained environments.

5.7 Proposed Context-Specific Risk Management Framework

Drawing on findings from EaRN Zambia, Seeds of Change, and Brasys, this study proposes a risk management framework tailored to Zambia’s development sector. Grounded in Contingency Theory, Stakeholder Theory, and Institutional Theory, this framework addresses resource constraints, cultural dynamics, and socio-economic realities while prioritizing adaptability, inclusivity, and innovation.

1. Core Pillars of the Framework

The framework is built on three interconnected pillars, each addressing critical dimensions of risk mitigation

Pillar	Components	Theoretical Link	Case Study Evidence
1. Adaptive Strategies	- Scenario planning	Contingency Theory (Donaldson, 2006)	EaRN Zambia’s use of scenario planning to navigate financial and operational uncertainties.
	- Dynamic resource allocation		
	- Contingency reserves		
2. Stakeholder Engagement	- Community empowerment	Stakeholder Saliency Model (Mitchell et al., 1997)	Seeds of Change’s participatory risk assessments and Brasys’ stakeholder consultations.
	- Multi-level decision-making		
	- Feedback loops		
3. Technology Integration	Predictive analytics		

- Real-time monitoring systems	Socio-Technical Systems Theory (Trist, 1981)	Brasys' data-driven systems and EaRN Zambia's experimentation with predictive analytics.
- Data literacy programs		

2. Contextual Factors Shaping Implementation

Factor	Framework Adaptation	Case Study Example
Resource Constraints	- Cost-effective tools (e.g., open-source risk software)	EaRN Zambia's reliance on donor funding limiting scalability of risk tools.
	- Phased implementation	
Cultural Dynamics	- Culturally sensitive communication	Seeds of Change's use of community leaders to overcome resistance to digital tools.
	- Local champions for technology adoption	
Socio-Economic Environment	- Alignment with national policies (e.g., Zambia's 8th National Development Plan)	Brasys' alignment with Zambia's health and education sector priorities.
	- Donor collaboration	

3. Implementation Roadmap

A phased approach ensures feasibility and sustainability in resource-constrained environments:

Phase	Steps	Tools/Activities
1. Preparation	- Risk Capacity Assessment: Audit organizational readiness and gaps.	SWOT analysis, stakeholder mapping, resource inventories.
	- Stakeholder Workshops: Align priorities with community needs.	Participatory workshops, focus group discussions.
2. Design	- Tool Customization: Adapt technologies to local infrastructure.	Open-source platforms (e.g., DHIS2 for data tracking), low-bandwidth solutions.
	- Policy Integration: Align strategies with national development agendas.	Policy review, Memorandums of Understanding (MOUs) with government agencies.
3. Execution	- Pilot Testing: Implement strategies in high-risk projects first.	Pilot projects (e.g., Seeds of Change's climate-resilient agriculture initiatives).
	- Continuous Training: Build staff and community capacity.	Workshops on data literacy, risk-aware leadership programs.
4. Monitoring	- Real-Time Dashboards: Track risks and mitigation progress.	Tools like Power BI or Tableau for visualization.
	- Participatory Evaluations: Involve stakeholders in iterative reviews.	Quarterly community forums, digital feedback tools (e.g., SMS surveys).

5.7 Regional and Contextual Implications

The findings emphasize key contextual and regional insights relevant to Zambia's socio-economic landscape. They stress the importance of increased government support for capacity-building initiatives to strengthen organizational resilience. Collaborative efforts between NGOs and public sector institutions are crucial for effective risk management, enabling resource sharing and coordinated action. Regionally, these insights provide valuable lessons for other countries in Africa facing similar challenges advocating for context sensitive and adaptive risk management strategies to promote sustainable development.

5.9 Chapter Summary

This chapter reviewed the findings from Chapter 4, linking them to the research objectives, existing literature, and theoretical frameworks. It explored the practical and theoretical implications, contextualized the results within Zambia's socio-economic landscape, and addressed limitations while suggesting areas for future research. These discussions set the stage for the conclusions and recommendations in Chapter 6.

CHAPTER 6:

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction of the Chapter

In this final chapter, conclusions to tie the findings to the conceptual framework and proposition will be summarized, indicating the practical and theoretical implications of this research. Thereafter, it will be followed by illustrations on the limitations of this research before moving on to the last section of this chapter to recommend areas for future research, practical recommendations are offered for enhancing risk management strategies with a focus on fostering organizational resilience and adaptability within EaRN Zambia, Seeds of Change, Brasys and similar entities operating in comparable environments.

6.2 Summary of Findings

The study examined risk mitigation strategies employed by EaRN Zambia, Seeds of Change, and Brasys, highlighting their effectiveness, challenges, and opportunities. EaRN Zambia utilized adaptive scenario planning, Seeds of Change emphasized education and community empowerment, while Brasys leveraged data-driven systems. Key challenges included resource constraints, resistance to change, and operational complexities, while opportunities centered on technological advancements, training programs, and partnerships. Stakeholder involvement varied, affecting decision-making effectiveness. The findings underscore the need for tailored, context-specific risk management strategies to enhance organizational resilience. These insights contribute to the broader understanding of risk mitigation in Zambia's development sector.

6.3 Conclusions of the Study

6.3.1 Adaptive Strategies and their Flexibility

The study highlights the importance of adaptive risk management strategies tailored to organizational contexts which involves. This involves constantly looking at risk data, checking threats based on user activities and behaviours and changing response strategies as needed. EaRN Zambia's success with scenario planning demonstrated that flexibility and forward-thinking approaches are critical in managing dynamic risks. These findings reinforce the value of integrating adaptive management frameworks to maintain strategic agility.

6.3.2 Education and Community Empowerment

Seeds of Change highlighted education as a powerful tool for community local driven risk mitigation. Incorporating educational & learning initiatives not only empowers stakeholders but also enhances their capacity to identify, understand and manage risks. This approach

provides long term sustainability and resonates with the need for proactive risk reduction strategies.

6.3.3 Technological Integration and Innovation

Brasys demonstrated the transformative potential of data driven systems in managing complex risks across multiple sectors. However, the journey hasn't been without challenges, the organisation has faced challenges such as technological resistance and has had project implementation hurdles, by suggesting that robust training and gradual technology be adopted for for success, organizations can make the transition smoother and ensure these systems are embraced effectively

6.3.4 Stakeholder Engagement and Inclusion

The study found that stakeholder engagement varied across organizations. While the senior level officers like the Executive Directors and Program Managers were central to decision making processes the lower-level staffs' involvement was limited and often left out of the process. This highlighted the need for more inclusive practices to leverage diverse insights ultimately leading to stronger and more effective risk mitigation strategies.

6.3.5 Resource Constraints and Operational Challenges

Limited resources and operational complexities and challenges emerged as significant barriers to effective risk management in these organisations. To address these issues requires creative approaches such as building strategic partnerships, improving the efficiency of resource allocation and also simplifying operational processes to reduce their impact.

6.4 Recommendations

6.4.1 Ensuring the Strengthening of Adaptive Strategies

Organizations should focus on equipping and training their teams with skills in scenario planning and other adaptive methods & techniques. By building the capacity of their teams to anticipate and respond to changing risks, they can improve resilience and stay agile in the face of uncertainty.

6.4.2 Enhancing Educational Initiatives

Incorporating and including education into risk mitigation frameworks is crucial. Workshops and training programs tailored to both staff and community stakeholders can deepen understanding, encourage proactive participation and strengthen overall risk mitigation efforts.

6.4.3 Expanding Technological Adoption

Organizations need to adopt and develop a phased approach to integrating technology supported by thorough training initiatives which are comprehensive. Engaging stakeholders

early and addressing resistance through education and awareness raising will ease the transition improve adoption rates and enhance operational efficiency.

6.4.4 Promoting Inclusive Decision Making

Greater inclusion in decision making processes is important. Creating opportunities for junior staff and frontline/ field team members to contribute their insights and views can enrich the decision-making process with diverse perspectives and critical feedback that are often overlooked in traditional hierarchical systems.

6.4.5 Leveraging Partnerships and Collaborations

Collaborations with government agencies, technical working groups, NGOs and private sector partners can help address resource and operational challenges. By pooling resources and expertise organisations can tackle the risks they face more effectively and develop solutions which are comprehensive.

6.4.6 Continuous Monitoring and Evaluation

Establishing strong monitoring and evaluation systems is essential and important for tracking the success of risk mitigation strategies. Regular reviews and mechanisms for gathering stakeholder feedback will ensure continuous improvement and adaptability.

6.5 Limitations of the Study

This study faced several limitations that may affect the interpretation and generalizability of its findings. The limited availability of quantitative data restricted the depth of statistical analysis requiring a primarily qualitative approach. The small sample size of just 3 organisations limits the ability to generalize to broader contexts. In addition, stakeholder perspectives may reflect organizational priorities introducing potential response bias. Recognizing these limitations provides a balanced view and highlights the need for future research with more diverse data sources and wider organizational involvement.

6.6 Areas for further Research Outlook

The findings from this study provide a valuable and important starting point for further exploration of effective risk mitigation approaches in development focused organizations an project. Moving forward, the tailored strategies that integrate adaptive management, stakeholder inclusivity and technological innovation will be important and vital in navigating and solving emerging risks and enhancing organizational resilience

REFERENCES

- Abdelhamid.T. (2019). Safety in construction: Managing risk with OSHA standards. New York.
- Ahmed, A. Pereira,. LJane. K (2024). Mixed Methods Research: Combining both qualitative and quantitative approaches.
- Ahmed, R., (2017). Risk Mitigation Strategies in Innovative Projects. In Key Issues for Management of Innovative Projects. INTECH Open Limited, United Kingdom, 83-100.
- Archer, N. P., & Ghasemzadeh, F. (1999). An integrated framework for project portfolio selection. *International Journal of Project Management*, 17(4), 207-216.
- Babbie E & Mouton J 2001. *The Practice of Social Research*. Cape Town: Oxford University.
- Badley, G. (2014). Pragmatist supervision of doctoral writers. *Quality Assurance in Education*.
- Bernard HR. (2002). *Research methods in anthropology: Qualitative and quantitative approaches*. 3rd Alta Mira Press; Walnut Creek, CA:
- Bessis, J. (2011). Risk management in banking: John Wiley & Sons.
- Borek, A(2014) Philip Woodall, in [Total Information Risk Management](#).
- Bowers, J, A and Khorakian, A (2014). Integrating risk management in the innovation project.
- Braimoh, A Mwanakasale, A Chapoto, A Rubaiza, R Chisanga, B, Ngao Mubanga, Paul Samboko, Giertz, A and Obuya, G(2018). Increasing Agricultural Resilience through Better Risk Management in Zambia. 1818 H Street NW, Washington, DC 20433.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77-101.
- Camilo;M Gabriela; F and, Madalena, A(2020) "Project portfolio risk management: a structured literature review with future directions for research," *International Journal of Information*.
- Cremer , F, Barry Sheehan , B, Fortmann , A, Kia , N, Mullins ,M, Finbarr Murphy , F, Materne. S. (2022). (Cyber risk and cybersecurity: a systematic review of data availability. Geneva Pap Risk Insur Issues Pract;47(3):698–736. doi: [10.1057/s41288-022-00266-6](https://doi.org/10.1057/s41288-022-00266-6)
- Cresswell JW, Plano Clark VL (2011). *Designing and conducting mixed method research*.
- Crispin G, (2020). The Essence of Risk Identification in Project Risk Management: An Overview. DOI:[10.21275/SR20215023033](https://doi.org/10.21275/SR20215023033).
- Cunha Dolci, P & Gastaud Maçada . A.C. (2011)Portfolio Theory: The Contribution of Markowitz's Theory to Information System Area DOI:[10.1007/978-1-4419-6108-2_10](https://doi.org/10.1007/978-1-4419-6108-2_10).
- Donaldson, L (2006). The Contingency Theory of Organizational Design: Challenges and Opportunities. DOI:[10.1007/0-387-34173-0_2](https://doi.org/10.1007/0-387-34173-0_2)
- European Union , (2019). European Disaster Risk Management. Available at https://civil-protection-humanitarian-aid.ec.europa.eu/what/civil-protection/european-disaster-risk-management_en

Feldman, J, & Krugman, R.(2023). Trends in North American construction risk management. Chicago: Industry Insights Publishing.

Foley, B, (2018). Purposive sampling 101, from <https://www.surveygizmo.com/resources/blog> .

Fredericks, E, (2004) Infusing flexibility into business-to-business firms: A contingency theory and resource-based view perspective and practical implications. DOI:[10.1016/j.indmarman.2004.09.022](https://doi.org/10.1016/j.indmarman.2004.09.022)

Fernando, Y., Walters, T., Ismail, M. N., Seo, Y. W., & Kaimasu, M. (2018). Managing project success using project risk and green supply chain management.

GFDRR. (2024). Disaster Risk Management in Latin America and the Caribbean Region: GFDRR Country Notes.

Gibson, (2023). What Is Risk Management & Why Is It Important?. Harvard Business School Online. Available at <https://online.hbs.edu>.

Gumz, J. (2012). Risk on complex projects: a case study. *PMI Global Congress—EMEA*.

Gurnov, A. (2024, August 28). What is project portfolio management (PPM)? Wrike. <https://www.wrike.com/project-management-guide/faq/what-is-project-portfolio-management-ppm/>

Hofman, M Spalek, S and G. Grela, "Shedding New Light on Project Portfolio Risk Management," Sustainability, vol. 9, no. 10, pp. 1798-1816, 2017.

Hubbard, Douglas (2009). *The Failure of Risk Management: Why It's Broken and How to Fix It*. John Wiley & Sons. p. 46. [ISBN 9781119522034](https://www.wiley.com/ISBN/9781119522034).

Hynuk S, Benoît R, & Robert P, (2008). Project Portfolio Risk-Opportunity Identification Framework IntechOpen. (2017). *Risk mitigation strategies in innovative projects*. Retrieved from <http://dx.doi.org/10.5772/intechopen.69004>

Katende, N, Kibe, A & Kubwimana, D. (2017). Implementing risk mitigation, monitoring and management in IT projects. *The Computer Journal*, 60(7), 1155-1170.

Kerzner, H. (2017). Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring and Monitoring Project Performance. Hoboken, NJ: John Wiley & Sons. <https://doi.org/10.1002/9781119427599>.

Koch, C and Urup, L (2017) Project Performance . An Emerging Constellation of Multiple Institutions In: Chan, P W and Neilson, C J (Eds) Proceeding of the 33rd Annual ARCOM Conference.

Kumar, S, & Prakash, P. (2020). Risk and regulatory challenges in Indian construction projects. Delhi: Horizon Publishers.

Landau, P. (2023, July 5). What is resource allocation? How to allocate resources for projects. ProjectManager. <https://www.projectmanager.com/blog/resource-allocation>

Luppino R, Hosseini MR, Rameezdeen R. (2014). Risk Management in Research and Development (R&D) Projects: The Case of South Australia. Doctoral dissertation. Asian Academy of Management;

M. Baghersad, C.W. Zobel (2021). Assessing the extended impacts of supply chain disruptions on firms: an empirical study. *Int. J. Prod. Econ.*, 231 (2021), Article 107862

Matua, G. A., & Van Der Wal, Dirk Mostert. (2015). Differentiating between descriptive and interpretive phenomenological research approaches. *Nurse Researcher (2014+)*, 22(6), 22. <http://dx.doi.org.ezproxy.liberty.edu/10.7748/nr.22.6.22.e1344>.

McMillan, J.H. & Schumacher, S. (2001). Research in education: A conceptual introduction.

Mizrak, K, C. (2024). Crisis Management and Risk Mitigation: Strategies for Effective Response and Resilience. [İstanbul Nişantaşı Üniversitesi](#)

Moon, K., & Blackman, D. (2017). A guide to ontology, epistemology, and philosophical perspectives for interdisciplinary researchers. *Integration and Implementation Insights*. <https://i2insights.org/2017/05/02/philosophy-for-interdisciplinarity/>

Mugenda, G.A. (2005). Research Methods: Qualitative and Quantitative approaches. Nairobi: African Center for technological studies.

Mulenga, T & Bimha, O. (2018). Enterprise risk management in Zambian banks: Challenges and opportunities. *International Journal of Finance and Banking Studies*, 7(4)

Müller, H & Weber, F. (2023). *Risk Management Strategies in Europe: A Comprehensive Analysis*. Berlin: European Management Journal Press.

Müller, R & Spang, K. (2009). Cultural differences in decision making in project teams. *International Journal of Managing Projects in Business*, 2(1). <https://doi.org/10.1108/17538370910930527>

Mulwanda, H (2021). Investigating the effects of credit risk management practices on profitability at absa bank zambia plc.

Musonda, M. (2014). Credit risk management in Zambian commercial banks: An empirical analysis. *African Journal of Business Management*, 8(6), 201-208.

Nkonde, C. Jayne, T & Chapoto, A. (2016). Conservation agriculture and climate risk management in Zambia: An evaluation of outcomes. *Zambia Agricultural Journal*, 54(3), 101-112.

Nunkwe, H, Nunkwe, M and Haabazoka, L (2022). An Investigation of the Risk Factors Affecting Financial Sustainability in Non-Governmental Organisations (NGOs): A Case Study of Lusaka NGOs .10.46254/AU01.20220456.

Olsson, R. (2008). Risk management in a multi-project environment: An approach to manage portfolio risks. *International Journal of Quality & Reliability Management*, 25(1), 60-71.

Patton MQ. (2002). *Qualitative research and evaluation methods*. 3rd Sage Publications.

Pritchard, C., & PMP, L. (2015). *Risk Management: Concepts and Guidance (5th ed.)*. CRC Press.

Project Management Institute. *The Standard for Project Management and A Guide to the Project Management Body of Knowledge (PMBOK Guide) (7th ed.)*. Project Management Institute.

Project Management Journal 39(3):97 - 109 DOI:10.1002/pmj.20072.

Rausand M (2013). ["Chapter 1: Introduction"](#). *Risk Assessment: Theory, Methods, and Applications*. John Wiley & Sons. pp. 1–28. [ISBN 9780470637647](#).

Raz, T & Shenhar, A Dov Dvir. (2002). Risk Management, Project Success, and Technological

Rodrigo ,D Zanelli A & Arlet J(2024). Risk and reform: Zambia's strategic approach to modern governance. Available at <https://blogs.worldbank.org/>

Sarta, A. Rodolphe Durand, R & J-P Vergne, (2021). Organizational Adaptation.DOI:10.1177/0149206320929088. University College London

Smith, R., Tatum, G., & Barnes, L. (2021). Digital tools for risk management in construction. Washington: Modern Construction Insights.

Stake, R. E. (2006). *Multiple Case Study Analysis*. Guilford Press.

Stephen D. Gantz & Daniel R. Philpott. (2013). [FISMA and the Risk Management Framework](#).

Tembo, G & Sitko, N. (2013). Weather indexed insurance as a climate risk management tool for smallholder farmers in Zambia. *Journal of Agricultural Economics and Development*.

USAID, (2024), Economic Development, Environment, and Food Security. Available at <https://www.usaid.gov/zambia/economic-development-environment-and-food-security> .

Watt; A David Wiley, et al.; (2014). Project Management Open Resources; and TAP-a-PM is licensed under a [Creative Commons Attribution-](#)

Weiss, C. (1998). *Evaluation: Methods for Studying Programs and Policies*. New Jersey: Prentice Hall.

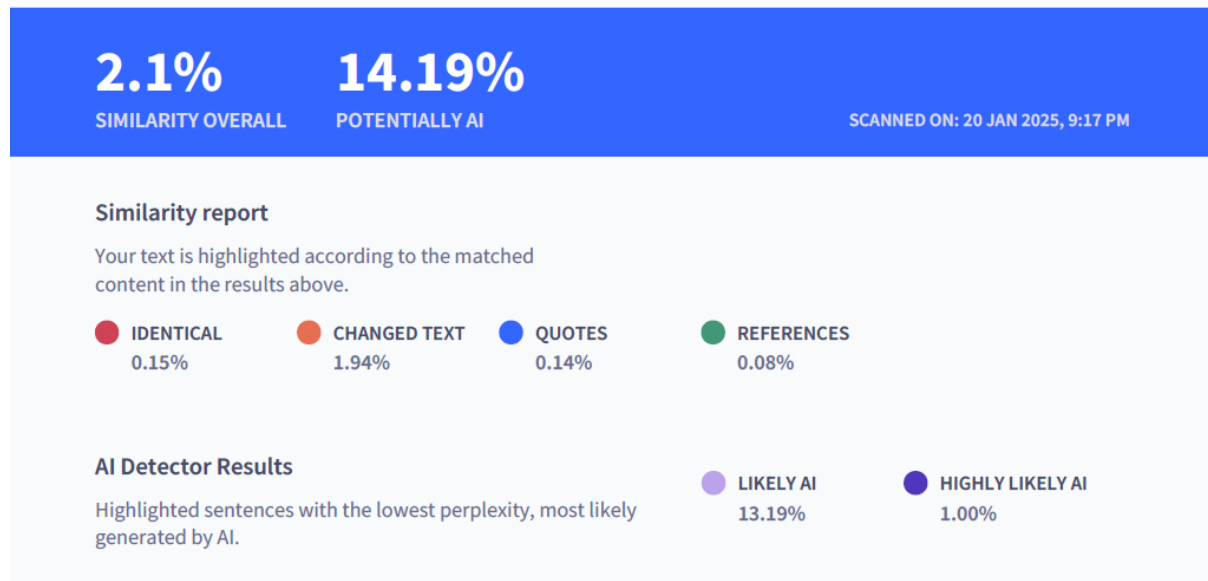
Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th ed.). SAGE Publications.

Zou, P X. W, Wang, J, Zhang, G (2007). Understanding the key risks in construction projects in China. DOI:10.1016/j.ijproman.2007.03.001.

Bromiley, P Michael Mcshane, M , Anil Nair, A & Elzotbek Rustambekov, E. (2014). Enterprise Risk Management: Review, Critique, and Research . DOI:10.1016/j.lrp.2014.07.005

Ayo Maxwell, A, Oguntoyinbo, F , N , Kehinde , M , K and Adesola A, J-L (2023). Risk Management In Africa's Financial Landscape: A Review.DOI:10.51594/ijae.v5i8.57320. International Journal of Advanced Economics 5(8):239-257.

APPENDIX ONE: SIMILARITY AND AI REPORT



Report #24481759

School of Postgraduate Studies The Effectiveness of Risk Mitigation Strategies in Project Portfolios in Zambia: A Case Study of EaRN Zambia, Seeds of Change and Brasys . A Thesis Submitted in Partial Fulfilment of the Requirements for the Award of the Degree Master of Science in Project Management (MSc PM) Shadrach Mwansa MSCPM23118996 2025 CHAPTER ONE

Link to report : <https://plagiarismcheck.org/profile/check-document-report/24481759/group/3961>

APPENDIX TWO: ETHICS APPROVAL



SCHOOL OF POSTGRADUATE STUDIES

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UNILUS-RESEARCH ETHICS COMMITTEE

Ref no: FWA00033228-20812/24

Date: 13th December 2024

STUDENT NAME: Shadrach Mwansa

RESEARCH TOPIC: The Effectiveness of Risk Mitigation Strategies in Project Portfolios in Zambia: A Case Study of EaRN Zambia, Seeds of Change, and Brasys..

The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS research ethics committee.
2. Approval from the necessary authority should be sought.

Congratulations and the committee wishes you success in your work.



Professor Kasonde Bowa

MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)

Chairman- UNILUS REC
Professor of Urology and Consultant Urologist
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Executive Dean - School of Medicine and Health Sciences

APPENDIX THREE: QUESTIONNAIRE

Questionnaire: Exploring the Effectiveness of Risk Mitigation Strategies in Project Portfolios in Zambia: A Case Study of EaRN Zambia, Seeds of Change, and Brasys

This questionnaire aims to gather insights from key stakeholders within EaRN Zambia, Seeds of Change, and Brasys, focusing on the effectiveness of risk mitigation strategies used in their project portfolios. The responses will help identify challenges, evaluate current approaches, and uncover opportunities for improvement in project risk management.

Demographic Information

1. **Name (Optional):**
2. **Organization:**
 - EaRN Zambia
 - Seeds of Change
 - Brasys
 - Other: _____
3. **Position/Role:**
 - Executive Director/Country Director
 - Program Manager
 - Finance/Operations Manager
 - Communications Officer
 - Program Officer
 - Knowledge Management Officer
 - Quality Assurance Officer
 - Other: _____
4. **How long have you been involved with risk management activities in your organization?**
 - Less than 1 year
 - 1-3 years
 - 3-5 years
 - More than 5 years

Section 1: Risk Mitigation Strategies

5. **What risk mitigation strategies are currently in place within your organization's project portfolio?**
(Please list or describe the strategies you believe are most prominent in your organization.)
6. **How effective do you believe these strategies are in addressing risks within the project portfolio?**
 - Very effective
 - Effective
 - Neutral
 - Ineffective
 - Very ineffective

7. **Which types of risks are most frequently encountered in your projects (e.g., financial, operational, political, external environmental, stakeholder-related, etc.)?**
(Please specify the top three types of risks your projects face.)
8. **In your opinion, what factors contribute most to the success or failure of risk mitigation strategies in your organization?**
(Please explain.)
9. **How are risks identified and assessed in your organization?**
 - Regular risk assessments and audits
 - Feedback from stakeholders and beneficiaries
 - Review of past project outcomes
 - Other: _____

Section 2: Challenges in Risk Management

10. **What are the main challenges your organization faces in managing risks within project portfolios?**
(Select all that apply)
 - Lack of resources (financial, human, technical)
 - Inadequate risk assessment tools or processes
 - Poor communication and coordination among stakeholders
 - Resistance to change within the organization
 - Lack of capacity in project management teams
 - External factors (e.g., political instability, economic fluctuations)
 - Other: _____
11. **Have there been any instances where a risk mitigation strategy failed or did not yield the expected results?**
 - Yes
 - No
 - If yes, please provide details about the situation and its outcomes.
12. **What barriers do you face in implementing more effective risk mitigation strategies?**
(Please provide a detailed response.)

Section 3: Opportunities for Improvement

13. **In your opinion, how can your organization improve its approach to risk mitigation in future projects?**
(Please provide suggestions for improvement.)
14. **Do you believe there are external organizations, best practices, or frameworks your organization could adopt to improve risk management?**
 - Yes
 - No
 - If yes, please specify which ones.

15. **What role do you think collaboration with other organizations or stakeholders can play in improving risk management strategies?**

(Please explain.)

16. **How do you perceive the balance between risk-taking and risk-averse strategies within your organization?**

- More risk-averse
- Balanced
- More risk-taking
- Not sure
- Please elaborate.

Section 4: Decision-Making and Stakeholder Involvement

17. **How involved are the following stakeholders in the decision-making process regarding risk management in your organization?**

(Rate each group on a scale of 1-5, where 1 = Not involved at all, 5 = Highly involved)

- Executive Directors/Country Directors: 1 2 3 4 5
- Program Managers: 1 2 3 4 5
- Finance and Operations Managers: 1 2 3 4 5
- Communications Officers: 1 2 3 4 5
- Program Officers: 1 2 3 4 5
- Knowledge Management Officers: 1 2 3 4 5
- Quality Assurance Officers: 1 2 3 4 5

18. **How often does your organization conduct reviews or evaluations of risk mitigation strategies?**

- Monthly
- Quarterly
- Annually
- Only when issues arise
- Never

19. **Do you think that the views of lower-level staff and stakeholders (e.g., program officers, field staff) are adequately considered in risk management decision-making?**

- Yes
- No
- Sometimes
- Please explain your answer.

Section 5: Overall Assessment

20. **Overall, how would you rate the effectiveness of risk management practices within your organization?**

- Very effective
- Effective

- Neutral
- Ineffective
- Very ineffective

21. **What do you think are the key areas where your organization should focus to improve risk mitigation strategies?**

(Please elaborate.)

22. **Are there any additional comments or insights you would like to share regarding the effectiveness of risk mitigation strategies in your organization's project portfolio?**

(Open-ended response)

Closing Remarks

Thank you for taking the time to participate in this survey. Your input is invaluable in helping us understand the effectiveness of risk mitigation strategies within your organization's project portfolio. Your responses will be kept confidential and used solely for academic research purposes.

This questionnaire is part of a research study titled "**The Effectiveness of Risk Mitigation Strategies in Project Portfolios in Zambia: A Case Study of EaRN Zambia, Seeds of Change, and Brasys.**" The purpose of this study is to explore the effectiveness of risk mitigation strategies within the project portfolios of the selected organizations. Your input will be invaluable in assessing the current approaches, identifying challenges, and uncovering opportunities for improvement in risk management within these organizations.