

**INFLUENCE OF PROJECT RISK MANAGEMENT PRACTICES ON
PERFORMANCE OF AGRICULTURAL PROJECTS IN KENYA: CASE OF
EKATERRA TEA KENYA PLC**

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DECLARATION AND APPROVAL

Declaration by the Student

This research project is my original work and has not been submitted in whole or in part for any academic reward at any institution.



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Approval by the Supervisor

This research project has been submitted for examination with my endorsement as the university supervisor.



Signature..... ..

Date: 07/05/2025

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DEDICATION

I dedicate this work to my wife, Cynthia Ng'eno and My Parents Joel Bett & Nancy Bett, for their unwavering moral and financial support throughout my academic journey.



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Undertaking this work has been a collaborative effort, and I am sincerely grateful to those who have contributed their support and guidance along the way. Their unwavering commitment and encouragement have been invaluable in making this endeavor a success.

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ABSTRACT

The Kenya's agricultural sector, though vital to economic growth and food security, faces persistent risks due to inadequate adoption of project risk management (PRM) practices, particularly among major firms such as Ekaterra Tea Kenya PLC. This study investigated the influence of PRM practices—specifically project risk identification, assessment, response planning, and monitoring/control—on the performance of agricultural projects at Ekaterra Tea Kenya PLC in Kericho County. Guided by Contingency Theory, Stakeholder Theory, and Resource-Based View, the study utilized a quantitative, cross-sectional design. Data were collected via a census survey from managers of all 70 agricultural projects within the firm. Descriptive statistics and multiple linear regression were used for analysis. The regression results showed that combined PRM practices accounted for 48.4% of the variation in project performance ($R^2 = 0.484$; $F(4, 63) = 14.751$, $p < .001$), indicating a statistically significant model. All four PRM practices had positive and significant effects: risk identification ($b = 0.063$, $t = 1.406$, $p = .002$), risk assessment ($b = 0.194$, $t = 4.399$, $p < .001$), risk response planning ($b = 0.198$, $t = 4.041$, $p < .001$), and risk monitoring/control ($b = 0.075$, $t = 1.811$, $p = .007$). Among these, risk response planning had the strongest influence on project performance. The study concludes that structured and systematic PRM practices significantly enhance the performance of agricultural projects. Recommendations include the development of national guidelines for risk identification, mandatory training programs, investment in risk assessment tools, inclusion of stakeholders in planning, and regular risk audits. Policymakers, project managers, and other stakeholders should collaborate to institutionalize these practices, thereby strengthening the resilience and productivity of agricultural projects. Future research should examine long-term effects, broader industry contexts, and mediating variables in PRM adoption and effectiveness.

TABLE OF CONTENTS

DECLARATION AND APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
LIST OF ABBREVIATIONS AND ACRONYMS.....	x
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	5
1.3 Purpose of the Study.....	6
1.4 Objectives of the Study	6
1.5 Hypotheses	7
1.6 Significance of the Study.....	7
1.7 Scope of the Study	9
1.8 Study Limitations	9
1.9 Delimitations	9
1.10 Assumptions of the Study.....	10
1.11 Operational Definition of Key Terms.....	10
CHAPTER TWO.....	12
LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Empirical Literature.....	12
2.3 Theoretical Framework	23
2.4 Conceptual Framework	30
2.5 Recap of Literature Review	30
CHAPTER THREE.....	33
RESEARCH METHODOLOGY.....	33
3.1 Introduction	33
3.2 Research Methodology	33
3.3 Research Design	33
3.4 Location of the Study	34
3.5 Target Population	35
3.6 Construction of Research Instrument	35

3.7 Testing for Validity and Reliability.....	36
3.8 Data Collection Methods and Procedures	37
3.9 Data Analysis Techniques and Procedures.....	38
3.10 Ethical Considerations.....	40
CHAPTER FOUR	41
RESEARCH FINDINGS, ANALYSIS AND PRESENTATION.....	41
4.1 Introduction	41
4.2 Response Rate	41
4.3 Background Information	42
4.4 Descriptive Statistics of Study Variables	47
4.5 Diagnostic Tests	61
4.6 Multiple Linear Regression Analysis Results	67
CHAPTER FIVE	72
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	72
5.1 Introduction	72
5.2 Summary of Key Findings.....	72
5.3 Conclusions	75
5.4 Recommendations of the Study.....	77
5.5 Areas for Further Research.....	79
LIST OF REFERENCES.....	81
APPENDICES.....	89
Appendix I: Research Questionnaire.....	89
Appendix II: Letter of Introduction.....	93
Appendix III: Research Permit from NACOSTI.....	95
Appendix IV: Similarity Index Report	97

LIST OF TABLES

Table 3.1: Reliability Coefficients for Study Variables	37
Table 4.1: Response Rate	41
Table 4.2: Descriptive Statistics for Project Risk Identification Practices.....	48
Table 4.3: Descriptive Statistics for Project Risk Assessment Practices	51
Table 4.4: Descriptive Statistics for Project Risk Response Planning Practices.....	53
Table 4.5: Descriptive Statistics for Project Risk Monitoring and Control	56
Table 4.6: Descriptive Statistics for Project Performance.....	59
Table 4.7: Durbin-Watson Test for Autocorrelation	65
Table 4.8: Variance Inflation Factors (VIF) for Predictor Variables	66
Table 4.9: Multiple Linear Regression Results: Project Performance on Project Risk Management Practices	67



LIST OF FIGURES

Figure 2.1: Conceptual Framework	30
Figure 4.1: Gender Distribution of Respondents.....	42
Figure 4.2: Age Distribution of the Respondents	43
Figure 4.3: Distribution of Respondents by Level of Education.....	44
Figure 4.4: Distribution of Respondents by Role in the Project.....	45
Figure 4.5: Distribution of Respondents by Length of Time with the Company.....	46
Figure 4.6: Scatterplot Matrix Depicting Linear Associations among Study Variables	62
Figure 4.7: Normal P-P Plot: Project Performance vs. Predictor Variables.....	63
Figure 4.8: Residuals Plot for the Multiple Linear Regression Model.....	64



LIST OF ABBREVIATIONS AND ACRONYMS

ASDP	Agricultural Sector Development Support Programme
CAP	Common Agricultural Policy
FAO	Food and Agricultural Organization
IPCC	Intergovernmental Panel on Climate Change
PARM	Platform for Agricultural Risk Management
PMI	Project Management Institute
PRM	Project Risk Management
RBV	Resource-Based View
SPSS	Statistical Package for Social Scientists
USDA	United States Department of Agriculture

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In the field of agricultural growth, managing risks in projects is essential for deciding whether efforts to enhance farming outcomes will succeed or fail. Globally, agriculture remains a cornerstone of economies, providing livelihoods for over 40% of the world's population (World Bank, 2024). Agricultural productivity, however, encounters major obstacles, as the Food and Agriculture Organization (FAO) estimates that pests, diseases, and other production risks cause annual losses of 20-40% in global crop yields (FAO, 2021). Additionally, climate change presents a significant threat to worldwide farming, with the Intergovernmental Panel on Climate Change (IPCC) predicting potential yield reductions of up to 25% for key crops like maize and wheat by 2050 (IPCC, 2021). Therefore, evaluating the impact of project risk management strategies on agricultural initiatives is vital for both individual nations such as Kenya and the overarching goals of global food security and economic resilience.

Project risk management encompasses a systematic approach to identifying, assessing, mitigating, and monitoring risks throughout the lifecycle of a project (Project Management Institute [PMI], 2021). Firstly, risk identification involves the comprehensive identification of potential risks that may impact project objectives and outcomes (Edwards et al., 2024). In the context of agricultural projects, these risks may include adverse weather conditions, market volatility, pest infestations, and resource constraints (Shah & Alharthi, 2024). Secondly, risk assessment involves analyzing the probability and potential effects of identified risks, often through methods like probability analysis, impact evaluation, and risk matrices (Alleman & Quigley, 2024).

This process assists in ranking risks according to their severity and likelihood of happening.

Thirdly, risk response planning involves developing and implementing strategies to reduce or eliminate the impact of identified risks (Waterworth & Gavin, 2024). In agriculture, mitigation measures may include diversification of crops, adoption of resilient farming practices, investment in irrigation infrastructure and procurement of insurance coverage. Finally, risk monitoring and control involve continuous supervision and adjustment of risk management strategies throughout the project lifecycle (PMI, 2021). This ensures that emerging risks are promptly addressed, and mitigation measures remain effective in the face of changing circumstances. By integrating these elements, project risk management practices aim to enhance the likelihood of project success and minimize the adverse effects of uncertainties on agricultural performance.

Project performance refers to the comprehensive evaluation of a project's success in achieving its objectives, delivering intended benefits, and meeting stakeholder expectations within the constraints of time, cost, and quality (Shamim, 2022). It involves assessing various aspects of the project's execution and outcomes to determine the extent to which it has met predefined criteria and contributed to its intended purpose (Lauer & Lauer, 2021). In the context of agricultural projects, performance metrics may include increased crop yields, improved livestock productivity, enhanced market access for farmers, and overall sustainability of agricultural activities (Hallstein & Iseman, 2021).

Globally, the importance of project risk management in various sectors, including agriculture, has been recognized and emphasized. In Europe, agricultural projects have significantly benefited from robust PRM practices. The European Union (EU) has invested heavily in agricultural risk management, with the Common Agricultural Policy (CAP) allocating €291.1 billion to risk management tools between 2017 and

2022(European Commission, 2021). These mechanisms encompass crop insurance programs, collective investment strategies, and income security measures, which have significantly improved the resilience of European farmers against various risks. The adoption of advanced risk management strategies has contributed to the stability and competitiveness of Europe's agricultural sector, ensuring sustainable production and food security in the region.

Similarly, in America, particularly the United States, the government has also recognized the importance of PRM in agriculture. The U.S. Department of Agriculture (USDA) provides a range of risk management tools, including crop insurance, disaster assistance, and market facilitation programs (USDA, 2021). These initiatives have helped American farmers manage risks associated with weather, pests, diseases, and market volatility, thereby enhancing the performance of agricultural projects. By offering financial protection and support mechanisms, the USDA has enabled farmers to navigate uncertainties effectively, fostering a resilient and dynamic agricultural industry in the United States (Khan et al., 2021).

In contrast, in developing regions such as Asia and Africa, agricultural project risk management practices may vary significantly due to socio-economic, institutional, and technological factors (Shah & Alhathi, 2024). However, some Asian countries have adopted PRM practices in their agricultural projects. For instance, India's Pradhan Mantri Fasal Bima Yojana (PMFBY) is a crop insurance scheme that covers crop failure due to natural calamities, pests, and diseases (Government of India, 2021).

In a comparable manner, China's agricultural insurance framework addresses diverse risks, such as natural calamities, crop illnesses, and market instability (Benami et al., 2021). Such programs highlight the acknowledgment of risk management's role in

maintaining agricultural stability and sustainable practices across Asia, thereby protecting food security and supporting livelihoods for millions.

In Africa, the adoption of PRM practices in agricultural projects is still in its nascent stages (Nshakira-Rukundo et al., 2021). However, some countries have made significant strides in this regard. For instance, Ethiopia's Platform for Agricultural Risk Management (PARM) aims to enhance farmers' resilience against climate-related risks through a combination of insurance, credit, and savings products (PARM, 2023). Similarly, Kenya's Agricultural Sector Development Support Programme (ASDSP) seeks to improve agricultural productivity and food security by strengthening risk management capacities (Government of Kenya, 2023). These initiatives reflect a growing awareness of the importance of risk management in mitigating agricultural risks and promoting sustainable development across Africa.

Zooming into the Kenyan context, agriculture accounts for approximately 33% of the country's GDP and employs over 70% of the rural population (FAO, 2021). However, the sector faces numerous challenges, including climate variability, limited access to markets and finance, inadequate infrastructure, and policy constraints. Given the importance of agriculture to Kenya's economy and livelihoods, understanding the influence of project risk management practices on the performance of agricultural projects is crucial for improving productivity, sustainability, and resilience in the sector. This study focused on Ekaterra Tea Kenya PLC as a case study to delve deeper into this issue and provide insights that can inform policy and practice in the agricultural sector.

Ekaterra Tea Kenya PLC is a prominent player in the Kenyan tea industry, operating tea estates in various regions such as Kericho, Nandi Hills, and Kiambu (Lipton, 2024). Renowned for its commitment to sustainability and quality, the company implements innovative farming practices to produce high-quality tea leaves. Ekaterra Tea Kenya PLC

actively engages in community development initiatives in the regions where it operates, fostering economic growth and environmental stewardship. As a leading exporter of Kenyan tea, Ekaterra Tea Kenya PLC plays a significant role in promoting the country's tea industry on both domestic and international fronts

1.2 Statement of the Problem

Agriculture is a cornerstone of Kenya's economy, contributing significantly to the nation's Gross Domestic Product (GDP) – approximately 33% – and employing over 70% of the rural population (FAO, 2021). Ideally, robust agricultural projects should consistently contribute to economic growth, food security, and improved livelihoods. However, the sector is demonstrably vulnerable to challenges like inadequate infrastructure, climate change impacts, and market fluctuations (Shah & Alhathi, 2024). These factors introduce substantial risks to agricultural projects, potentially leading to failure, food insecurity, and financial losses for stakeholders.

Effective project risk management is crucial for mitigating these vulnerabilities and ensuring successful project outcomes (Vilani et al., 2024). Yet, adoption of formal risk management practices within Kenya's agricultural sector remains limited. Data from the Ministry of Agriculture and Livestock Development (2021) indicates that less than 1% of Kenyan farmers utilize agricultural insurance, and uptake of other risk mitigation tools – such as market information systems and post-harvest technologies – is similarly low (Fukumori et al., 2022). This limited adoption is linked to factors including a lack of awareness, high costs, infrastructural deficiencies, and restricted access to credit (Nshakira-Rukundo et al., 2021).

While government initiatives aim to improve risk management in agricultural projects, the persistent low adoption rates suggest a gap in understanding and effective implementation of these practices. Existing research on project risk management in

agriculture often focuses on contexts outside of Kenya, such as highly mechanized agricultural systems in developed nations (Obondi, 2022) or specific sub-sectors like irrigation (Kabutei et al., 2022; Omondi & Chege, 2023), potentially overlooking the unique risk profiles of other agricultural industries.

Ekaterra Tea Kenya PLC, a major tea producer in Kenya, exemplifies this challenge. The company undertakes numerous agricultural projects designed to enhance tea production and support smallholder farmers. However, despite internal efforts to implement project risk management, the specific risks impacting project performance at Ekaterra Tea Kenya PLC, and the effectiveness of current mitigation strategies, remain unclear (Chepkoech et al., 2023). Specifically, there is a lack of empirical evidence detailing the challenges Ekaterra Tea Kenya PLC faces in proactively identifying, assessing, and responding to project risks.

Therefore, this study sought to investigate the influence of project risk management practices on the performance of agricultural projects specifically within Ekaterra Tea Kenya PLC. The central research question guiding this investigation was: What is the influence of project risk management practices on the performance of agricultural projects at Ekaterra Tea Kenya PLC?

1.3 Purpose of the Study

The purpose of this study is to investigate the influence of PRM practices on the performance of agricultural projects, with a focus on Ekaterra Tea Kenya PLC.

1.4 Objectives of the Study

1. To examine the influence of project risk identification practices on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
2. To determine the influence of project risk assessment practices on the performance of agricultural projects by Ekaterra Tea Kenya PLC.

3. To assess the influence of project risk response planning practices on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
4. To determine the influence of project risk monitoring and control on the performance of agricultural projects by Ekaterra Tea Kenya PLC.

1.5 Hypotheses

1. H₀: There is no statistically significant influence of project risk identification practices on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
H₁: There is a statistically significant influence of project risk identification practices on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
2. H₀: Project risk assessment practices have no statistically significant influence on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
H₁: Project risk assessment practices have a statistically significant influence on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
3. H₀: Project risk response practices do not statistically significantly impact the performance of agricultural projects by Ekaterra Tea Kenya PLC.
H₁: Project risk mitigation practices statistically significantly impact the performance of agricultural projects by Ekaterra Tea Kenya PLC.
4. H₀: Project risk monitoring and control have no statistically significant influence on the performance of agricultural projects by Ekaterra Tea Kenya PLC.
H₁: Project risk monitoring and control have a statistically significant influence on the performance of agricultural projects by Ekaterra Tea Kenya PLC.

1.6 Significance of the Study

This study holds practical significance for Ekaterra Tea Kenya PLC and similar organizations operating in the agricultural sector. By investigating the influence of PRM practices on project performance, the research aimed to provide actionable insights that

can directly inform decision-making and improve operational outcomes. Specifically, the findings from this study can offer tangible guidance for Ekaterra in optimizing their risk management strategies throughout the project lifecycle. By identifying effective risk identification, assessment, mitigation, and monitoring/control practices, the company can enhance its ability to proactively address potential threats and capitalize on opportunities, ultimately improving project success rates and maximizing returns on investment.

The findings of this study can also serve as a benchmark for the broader agricultural industry. By examining the effectiveness of PRM practices in a specific agricultural context, stakeholders across the industry can gain valuable insights into best practices, emerging trends, and areas for improvement in risk management. This knowledge exchange can foster collaboration, innovation, and continuous improvement within the agricultural sector.

Additionally, policymakers and regulatory bodies involved in the agricultural sector can benefit from the findings of this study to develop more effective policies and regulations related to project risk management. By understanding the impact of PRM practices on project performance, policymakers can design interventions to incentivize or mandate the adoption of robust risk management frameworks, ultimately enhancing the resilience and sustainability of agricultural projects at both the organizational and industry levels. Furthermore, this study contributes to the academic literature on project management, specifically within the agricultural context. By empirically examining the relationship between PRM practices and project performance, the research adds to the body of knowledge on risk management theory and practice. It provides a foundation for future research endeavors exploring related topics and methodologies, thereby advancing the field of project management scholarship.

1.7 Scope of the Study

The scope of this study was centered on investigating the influence of project risk management (PRM) practices on the performance of agricultural projects, with a specific focus on Ekaterra Tea Kenya PLC. Geographically, the research was confined to Kericho County, which is the primary area of operation for Ekaterra Tea Kenya PLC. The study adopted a cross-sectional design, with data collection taking place between June 2024 and October 2024. This temporal scope provided a snapshot of PRM practices and project performance within Ekaterra Tea Kenya PLC during this specific period. The study focused on four main areas of PRM practices: risk identification, risk assessment, risk mitigation, and risk monitoring and control.

1.8 Study Limitations

The study encountered a few practical limitations that may have influenced the scope and depth of the findings. Firstly, although the overall response rate was high (97.1%), a small number of targeted participants did not respond to the questionnaire. This non-response may have resulted in the exclusion of potentially valuable insights and slightly limited the completeness of the dataset. Secondly, the study was conducted under a tight timeframe, which limited the opportunity to conduct follow-up interviews or deeper qualitative exploration. The time constraint also restricted the research to a cross-sectional design, preventing any assessment of changes in risk management practices or project performance over time.

1.9 Delimitations

The study exclusively concentrated on Ekaterra Tea Kenya PLC as the primary subject of analysis. While Ekaterra serves as a valuable case study, the findings may not be directly applicable to other agricultural organizations due to variations in organizational structure, culture, and operational practices. Additionally, the research was delimited to

the operations of Ekaterra Tea within Kenya. Therefore, the findings may not fully represent the dynamics of agricultural projects in other geographical locations, where factors such as environmental conditions, regulatory frameworks, and market dynamics may differ significantly.

1.10 Assumptions of the Study

The study assumed presumes that participants provided truthful and candid responses, despite any potential concerns related to their roles or organizational dynamics. In addition, the study assumed that risk management was a relevant and integral aspect of Ekaterra's operations. It is also presumed that risk management practices are employed in various capacities within the organization and play a substantial role in the execution and performance of agricultural projects. The study further assumed that external factors influencing agricultural projects, such as market conditions, regulatory environments, and socio-economic trends, would relatively constant over the study period. While acknowledging the potential impact of external factors, the study focused primarily on internal PRM practices within Ekaterra Tea Kenya PLC.

1.11 Operational Definition of Key Terms

Project risk identification: The systematic process of recognizing and documenting potential threats or opportunities that may impact the successful completion of a project by integrating stakeholder input, historical data analysis, workshops, risk registers and expert judgement.

Project risk assessment: The evaluative process of analyzing identified risks to determine their potential impact and likelihood of occurrence, utilizing risk assessment tools, scoring techniques, expert judgement and probabilistic methodologies.

Project risk response planning: This involves developing approaches to address identified risks by selecting the most appropriate strategies, delving into action plans and contingency plans, allocating resources effectively and actively involving stakeholders in the decision-making processes.

Project risk monitoring and control: The process of overseeing identified risks, assessing their status through key risk indicators and audits, engaging stakeholders and ensuring compliance and governances to effectively manage risks throughout the project lifecycle.

Project performance: The evaluation of cost, time, quality and stakeholder satisfaction metrics to gauge a project's efficiency, effectiveness and alignment with predefined goals and expectations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an in-depth analysis of multiple scholarly sources pertinent to examining the role of PRM practices in enhancing agricultural project outcomes in Kenya. It commences with a structured review of research studies in the field, aiming to uncover trends and deficiencies in existing literature. Following this, the chapter outlines fundamental theoretical viewpoints that formed the basis of the study. Subsequently, a conceptual model is introduced, serving as a visual depiction of the relationships among key variables under investigation.

2.2 Empirical Literature

2.2.1 Influence of Project Risk Identification on Project Performance

Various studies provide important perspectives on how identifying project risks relates to the success of agricultural initiatives in Kenya. For example, Alsaadi and Norhayatizakuan (2021) investigated risk identification practices' impact on the performance of construction projects in Oman. Adopting a cross-sectional research design, they utilized data obtained from a stratified sample of 376 respondents and employed structural equation modeling for analysis. Although the study showed a significant positive association between risk identification practices and construction project performance, the contextual gap between construction projects in Oman and agricultural projects in Kenya raises concerns about applying findings to Ekaterra Company PLC's context.

Algremazy et al. (2023) explored risk identification practices' effect on the performance of construction projects in Libya. Utilizing a descriptive research design, they randomly sampled 312 Libyan construction companies and employed structural equation

modeling. The study found a significant positive relationship between risk identification practices and construction project performance. However, the geographical specificity to Libya limits its generalizability to agricultural projects in Kenya, posing a research gap regarding Ekaterra Company PLC's context.

Fikadu and Kant (2023) investigated project risk management practices' effects on project performance in the West Guji zone, Ethiopia. Combining quantitative and qualitative research approaches, they sampled projects through stratified and random sampling techniques, utilizing multiple linear regression analysis. While revealing a significant positive influence of project risk management practices, including risk identification, the study's contextual gap between Ethiopia and Kenya suggests caution in applying findings directly to agricultural projects within Ekaterra Company PLC.

Igihozo and Irechukwu (2022) examined the influence of project risk identification on project performance within the Mpazi channel construction project. Their descriptive research with mixed methods approach sampled 118 respondents using stratified sampling techniques. Statistical analysis revealed a strong positive and significant relationship between project risk identification and construction project performance, with a correlation coefficient of 0.970 ($p < 0.05$). While the study demonstrates the importance of risk identification in construction projects, it presents a significant research gap regarding its applicability to agricultural projects in Kenya, particularly in Ekaterra Company PLC's context. The unique environmental, seasonal, and market risks inherent in Kenyan agricultural operations likely differ substantially from those in construction projects, limiting the transferability of these findings to Ekaterra's agricultural project management framework.

Otieno and Mutiso (2021) examined project risk management's influence on the performance of agricultural projects in Nakuru County, Kenya. Employing a descriptive

research design, they gathered data from 116 agricultural projects through random sampling and utilized regression analysis. Although revealing a significant positive effect of project risk identification practices, the study's narrow focus on Nakuru County may limit its generalizability to other regions, posing a research gap regarding Ekaterra Company PLC's context.

Omondi and Chege (2023) investigated the effect of risk identification on agricultural projects' performance in the Ahero irrigation scheme, Kenya. Employing a descriptive research design, they targeted agricultural projects within the Ahero irrigation scheme, utilizing simple random sampling and employing regression analysis. While revealing a positive and significant influence of risk identification, the study's narrow focus on the Ahero irrigation scheme may limit its applicability to other agricultural contexts, posing a research gap concerning Ekaterra Company PLC's operations.

Jackson and Mungai (2023) explored the relationship between risk identification and project performance in Public Private Partnership (PPP) agricultural projects in Kenya. Utilizing a descriptive research design, they collected data from 22 PPP projects through proportionate stratified random sampling, employing both descriptive and inferential statistics for analysis. Although revealing a strong and significant relationship between risk identification and project performance, the focus on PPP projects may limit the generalizability of findings to other agricultural projects, including those undertaken by Ekaterra Company PLC.

Mutula and Engairo (2024) examined the relationship between risk identification and successful project implementation among Catholic church construction projects in the diocese of Ngong, Kenya. Adopting a cross-sectional study design, they selected 72 participants through simple random sampling and purposive sampling, employing correlation and linear analyses. Although showing a weak positive significant

relationship between risk identification and successful project implementation, the study's focus on construction projects within a religious context may limit its applicability to agricultural projects, posing a research gap concerning Ekaterra Company PLC's operations.

2.2.2 Influence of Project Risk Assessment and Project Performance

Several studies provide useful insights into how project risk assessment affects the performance of agricultural projects in Kenya, though their findings vary in relevance due to contextual differences. For instance, Aldaiyat (2021) examined the relationship between risk analysis and the performance of construction projects in Kuwait. Using a mixed methods approach, the study surveyed 150 engineers and 15 project managers and analyzed the data with Pearson correlation. The results showed a strong, positive link between risk analysis and project performance. However, the focus on Kuwait's construction sector raises questions about applying these findings to agricultural projects in Kenya, such as those managed by Ekaterra Tea Kenya PLC.

Alsaadi and Norhayatizakuan (2021) investigated how risk assessment practices affect construction project performance in Oman. Using a cross-sectional design and a stratified sample of 376 respondents, the study applied structural equation modeling. The findings revealed a significant, positive relationship between risk assessment and project performance. However, the differences between Oman's construction sector and Kenya's agricultural projects raise concerns about directly applying these results to Ekaterra Tea Kenya PLC, pointing to a research gap.

Elokby et al. (2021) examined the impact of project risk assessment on project performance within Egypt's IT and Telecommunication sectors. Their study collected data through questionnaires from 103 IT project employees, analyzing both qualitative

and quantitative risk analysis processes. The findings demonstrated that performing risk assessment activities positively influenced project success across time, cost, scope, and quality dimensions. However, this study's focus on IT projects in Egypt presents a significant research gap regarding its applicability to agricultural projects in Kenya, particularly within Ekaterra's context. The distinctive risk factors in Kenyan agriculture—including unpredictable weather patterns, seasonal variations, supply chain vulnerabilities, and market fluctuations—differ substantially from those in IT projects, limiting the transferability of these findings to Ekaterra's agricultural operations. This gap highlights the need for sector-specific research on risk assessment practices within Kenya's agricultural project environment.

Aikpokhio et al. (2023) studied the link between risk assessment and construction project performance in Abuja, Nigeria. Using a cross-sectional design and purposive sampling of 256 respondents, the study employed linear regression analysis. The results showed a significant, positive relationship between risk assessment and project performance. However, the focus on Nigeria's construction sector suggests limited applicability to Kenya's agricultural projects, including those of Ekaterra Tea Kenya PLC, indicating a research gap.

Juma and Kamaara (2024) examined the influence of risk analysis on the performance of affordable housing projects in Nairobi City County, Kenya. Employing a cross-sectional survey design with a census of 176 project managers and site engineers, their regression analysis revealed that risk analysis had a statistically significant positive effect on project performance ($\beta = 0.317, p < 0.001$). This finding demonstrates that effective risk assessment practices substantially contribute to improved project outcomes in the Kenyan housing sector. However, the study's focus on urban housing construction projects creates a notable research gap regarding its applicability to agricultural projects

in Kenya, particularly within Ekaterra's context. The unique risk assessment considerations in agricultural operations, including climate variability assessment, seasonal production risk evaluation, and agricultural market risk analysis—differ considerably from those in construction projects, limiting the transferability of these findings to Ekaterra's agricultural project environment.

Otieno and Mutiso (2021) investigated how risk assessment influences agricultural project performance in Nakuru County, Kenya. Using a descriptive design and sampling 116 agricultural projects through random sampling, the study applied regression analysis. The results highlighted a significant, positive impact of risk assessment on project performance. However, the study's focus on Nakuru County raises concerns about its applicability to agricultural projects in other regions, such as those of Ekaterra Tea Kenya PLC.

Omondi and Chege (2023) examined the relationship between risk analysis and agricultural project performance in the Ahero irrigation scheme, Kenya. Using a descriptive design and sampling project managers through simple random sampling, the study applied regression analysis. The findings showed a significant, positive impact of risk analysis on project performance. However, the narrow focus on the Ahero irrigation scheme suggests limited applicability to broader agricultural projects in Kenya, including those of Ekaterra Tea Kenya PLC.

2.2.3 Influence of Project Risk Response Planning and Project Performance

Several studies provide insights into the connection between project risk response planning and project performance, though their relevance to agricultural projects in Kenya varies. For example, Sangwa and Dushimimana (2023) examined the effect of risk response planning on project performance within the TWICECEKA project in Huye District, Rwanda. Using a census survey approach, they collected data from 200

respondents through questionnaires and analyzed it using SPSS. Their regression analysis revealed that risk response planning had a significant positive impact on project performance ($\beta = 0.425$, $p < 0.05$), demonstrating that effective risk response planning substantially contributes to improved project outcomes. Based on this finding, they rejected the null hypothesis (H03) which stated there was no significant effect of risk response planning on project performance. While this study provides valuable insights into development projects in Rwanda, its focus on a USAID-funded women's empowerment initiative creates a research gap regarding its applicability to agricultural projects in Kenya, particularly within Ekaterra's context. The unique risk response planning requirements for agricultural operations, including strategies for weather contingencies, crop disease management, and agricultural market fluctuations, differ considerably from those in social development projects, limiting the transferability of these findings to Ekaterra's agricultural project environment.

Nanette and Wabala (2025) examined the effect of project risk response planning on performance within the Rwanda Urban Development Project (RUDP). Using a descriptive and correlational research design, they analyzed data through SPSS to determine relationships between risk management practices and project outcomes. Their regression analysis revealed that project risk response planning had a significant positive impact on project performance ($\beta = 0.272$, $t = 3.151$, $p = 0.002$), indicating that a unit increase in response planning activities led to a 0.272-unit increase in project performance. This finding demonstrates that effective risk response planning substantially contributes to improved project outcomes in urban development contexts. However, the study's focus on urban development projects creates a notable research gap regarding its applicability to agricultural projects in Kenya, particularly within Ekaterra's context. The unique risk response planning requirements for agricultural operations—

including strategies for weather contingencies, pest and disease management, and agricultural market volatility—differ considerably from those in urban development projects, limiting the transferability of these findings to Ekaterra's agricultural project environment.

Ng'etich and Munene (2024) examined the influence of project risk response practices on the successful completion of road projects in Nakuru County, Kenya. Using a descriptive survey design, they collected data from 98 engineers, risk managers, subcontractors, and contractors involved in seven road projects managed by the Kenya Rural Roads Authority. Their analysis, employing regression and correlation techniques, revealed a significant positive relationship between risk response planning and project completion ($r = 0.219$, $p = 0.002$). This indicates that effective risk response strategies contribute meaningfully to project success in the context of road construction. However, as the study focused solely on road infrastructure, there is a notable research gap regarding how risk response planning impacts project performance in agricultural projects within Kenya. Agricultural projects often face different risks—such as climatic shocks, pests, and market fluctuations—that require tailored risk response strategies. Further empirical investigation is needed to understand the role of risk response planning in enhancing performance outcomes in Kenya's agricultural sector.

Murungi and Omwenga (2022) examined the impact of risk mitigation strategies on the performance of women-funded projects in Meru County, Kenya. Using a descriptive survey design, the study collected data from over 1,000 individuals through semi-structured questionnaires. The findings showed a significant, positive impact of risk mitigation on project performance. While focused on women-funded projects, these findings may offer useful insights for agricultural projects, including those of Ekaterra Tea Kenya PLC.

Kabutei et al. (2022) studied the relationship between risk response planning and project performance in National Irrigation Board (NIB) projects in Kenya. Using a descriptive design across eight irrigation schemes under NIB, the study collected data through structured questionnaires and analyzed it with linear regression. The findings showed a significant, positive relationship between risk planning and project performance. However, the focus on irrigation schemes raises concerns about applying these results to broader agricultural projects, including those of Ekaterra Tea Kenya PLC.

2.2.4 Influence of Project Risk Monitoring and Control on Project Performance

Numerous empirical studies offer critical insights in exploring the nexus between risk monitoring and control and the performance of agricultural projects in Kenya. For example, Obondi (2022) delved into the correlation between risk monitoring and control practices and project success within construction projects in the United States. Utilizing descriptive research design and electronic surveys, data were gathered from 50 construction project managers in Texas. The study revealed a significant and positive correlation between various risk monitoring and control practices and project success. However, the focus on construction projects in the United States may raise concerns about the generalizability of findings to agricultural projects in Kenya, pinpointing a research gap concerning Ekaterra Tea Kenya PLC's operations.

Kallow et al. (2022) examined the link between risk monitoring and the success of construction projects in Pakistan. Employing a cross-sectional research design, the study involved 415 project managers, with data analyzed using linear regression. The results revealed a significant and positive relationship between risk monitoring and project success. Nonetheless, the context of construction projects in Pakistan may limit the direct applicability of findings to agricultural projects in Kenya, including those of Ekaterra Tea Kenya PLC, indicating a research gap.

Fikadu and Kant (2023) investigated the impact of project risk management practices on project performance in the West Guji zone, Ethiopia. Employing mixed methods research design, the study utilized stratified and random sampling techniques, with data analyzed using multiple linear regression. The findings indicated a significant and positive influence of monitoring risk on project performance within the region. Despite their insightful findings, the direct transferability to agricultural projects in Kenya, particularly those of Ekaterra Tea Kenya PLC, remains inadequately addressed, unveiling a noteworthy research gap.

Innocent and Dushimimana (2023) explored the effect of risk monitoring and control on the performance of the Twiceceka project in Rwanda, targeting 200 respondents through a census survey. Using structured questionnaires and linear regression analysis, the study uncovered a significant and positive relationship between risk monitoring and control and project performance. However, the focus on a specific project in Rwanda may limit the generalizability of findings to agricultural projects in Kenya, posing a research gap concerning Ekaterra Tea Kenya PLC's operations.

Antoine and Sikubwabo (2024) investigated the effect of project risk monitoring and control on project performance within the "Intensification of Beans Rich in Vitamin B" project in Gakenke District, Rwanda. Employing a mixed-methods approach, they collected data through questionnaires and interviews using systematic random sampling of project stakeholders. Their multiple regression analysis revealed that risk monitoring and control had a significant positive impact on project success ($\beta = 0.523$, $p = 0.002$), indicating that effective risk monitoring practices substantially contribute to improved project outcomes. Based on this finding, they rejected the null hypothesis that risk monitoring and control has no significant effect on project success. While this study provides valuable insights into agricultural development projects in Rwanda, its specific

focus on a vitamin B-rich bean intensification initiative creates a research gap regarding its applicability to broader agricultural projects in Kenya, particularly within Ekaterra's context. The unique risk monitoring requirements for tea production—including different environmental monitoring needs, supply chain considerations, and market dynamics—may differ from those in bean cultivation projects, limiting the direct transferability of these findings to Ekaterra's agricultural project management framework.

Mutunga and Ondara (2021) conducted a study at the Kenya Airport Authority (KAA) to evaluate the relationship between risk control and project performance. Employing a descriptive research design, the study involved 281 staff members, with a sample of 141 selected for analysis. Through both inferential and descriptive analysis methods, including multiple regression analysis, the findings indicated a significant and positive influence of risk control on project performance at KAA. Nevertheless, the direct transferability of their findings to agricultural projects, including those of Ekaterra Tea Kenya PLC, necessitates further investigation, highlighting a research gap worthy of exploration.

Gathigia and Wairimu (2023) scrutinized the relationship between risk control and project performance in infrastructural projects within Nakuru County, Kenya. Utilizing a cross-sectional survey design and targeting 201 project managers, the study employed linear regression analysis, revealing a significant and positive relationship between risk control and project performance. This study was primarily centered on infrastructure projects, leaving a significant a notable gap in understanding of how the insights can be effectively translated to agricultural projects, such as those undertaken by Ekaterra Tea Kenya PLC.

2.3 Theoretical Framework

This part of the discussion explores the fundamental theories that support the study. The theories examined include Contingency Theory, Resource-Based View (RBV), and Stakeholder Theory. By analyzing these concepts in detail, their significance and suitability for the research context are clarified and explained.

2.3.1 Contingency Theory

Contingency Theory, developed in the mid-20th century, represents a departure from earlier management theories that sought universal principles applicable across all organizational contexts (Turkulainen, 2022). This approach recognizes the diverse and dynamic nature of organizations, proposing that management practices must be contingent upon specific circumstances to be effective. Scholars such as Fred Fiedler and Joan Woodward played pivotal roles in advancing this theory, which has since become influential in organizational studies (Sehgal, 2023).

The core tenets of Contingency Theory include the idea that an organization's effectiveness is dependent on the fit between its management practices and the specific contingencies it faces (Shenkar & Ellis, 2021). This means that different management practices and organizational structures may be more or less effective in different situations. Contingency Theory also suggests that organizations must be flexible and adaptable in order to respond effectively to changing situational factors. This requires organizations to be able to identify and assess the contingencies they face, and to adjust their management practices and organizational structures accordingly (Valeri, 2021).

One of the key strengths of Contingency Theory is its recognition of the complexity and diversity of organizational environments (Pang et al., 2023). By acknowledging that different organizations face different contingencies, the theory provides a more nuanced and flexible approach to management. Contingency Theory also emphasizes the

importance of organizational adaptation and flexibility, which can be critical in rapidly changing and uncertain environments. The theory is also supported by a significant body of empirical research, which has demonstrated the importance of contingencies in determining the effectiveness of management practices and organizational structures (Haveman, 2022).

However, Contingency Theory also has its limitations. One of the main criticisms of the theory is that it can be difficult to identify and assess the specific contingencies that an organization faces, and to determine the most effective management practices and organizational structures in response (Carroll et al., 2022). The theory also assumes that organizations have the resources and capabilities to adapt to changing situational factors, which may not always be the case. Contingency Theory has also been criticized for being overly complex, and for failing to provide clear and actionable guidelines for managers (Shenkar & Ellis, 2022).

In light of this study, Contingency Theory provides meaningful insights. The theory suggests that the influence of project risk management practices on the performance of agricultural projects may depend on the specific contingencies that the company faces. For instance, the effectiveness of project risk identification practices may depend on the nature and complexity of the risks associated with agricultural projects. The influence of project risk assessment practices may depend on the availability and quality of information about the risks. The effectiveness of project risk response planning practices may depend on the resources and capabilities available to the company to respond to identified risks. The influence of project risk monitoring and control practices may depend on the dynamics and uncertainties of the agricultural projects. Therefore, based on Contingency Theory, it can be predicted that the performance of Ekaterra Tea Kenya

PLC's agricultural projects would be higher when the company's project risk management practices are aligned with the specific contingencies it faces.

2.3.2 Stakeholder Theory

The concept of Stakeholder Theory emerged in the 1980s and was introduced by R. Edward Freeman, who proposed that the conventional emphasis on maximizing shareholder value was overly restrictive. Instead, Freeman suggested that organizations should be managed in a way that benefits all stakeholders (Freeman et al., 2021). Stakeholders are defined as individuals or groups impacted by the actions, decisions, and policies of an organization. This includes employees, customers, suppliers, shareholders, creditors, government entities, and the broader community (Bridoux & Stoelhorst, 2022). According to Stakeholder Theory, organizations should take into account the interests of all stakeholders when making decisions and aim to generate value for all parties involved, rather than prioritizing only certain groups (Kivits et al., 2021).

Stakeholder Theory has several key tenets. Firstly, it emphasizes the importance of identifying and engaging with all relevant stakeholders in the decision-making process (Freeman et al., 2021). This requires organizations to be transparent and accountable to their stakeholders, and to actively seek out their input and feedback. Secondly, Stakeholder Theory emphasizes the need for organizations to create value for all stakeholders, not just a select few (McGahan, 2021). This requires organizations to balance the competing interests of different stakeholders, and to find ways to create shared value that benefits all stakeholders. Thirdly, Stakeholder Theory emphasizes the importance of building and maintaining strong relationships with stakeholders. This requires organizations to communicate effectively with stakeholders, to build trust and mutual understanding, and to address stakeholder concerns in a timely and effective manner (Ozdemir et al., 2023).

One of the key strengths of Stakeholder Theory is its inclusivity (Freeman, 2023). It recognizes the importance of all stakeholders in an organization's success and encourages organizations to consider the broader societal impact of their actions. This can lead to more sustainable and responsible business practices and can ultimately benefit the organization by enhancing its reputation and relationships with stakeholders. Stakeholder Theory also acknowledges the complex and dynamic nature of organizational environments and encourages organizations to be adaptable and responsive to changing stakeholder needs and expectations. This can lead to more innovative and creative solutions to organizational challenges and can help organizations to stay ahead of the competition (Mahajan et al., 2023).

However, Stakeholder Theory also has its weaknesses. One of the main criticisms of the theory is that it can be challenging to balance the competing interests of multiple stakeholders, and some stakeholders may have more power or influence than others, making it difficult to achieve a fair and equitable balance (Bridoux & Stoelhorst, 2022). This can lead to conflicts between stakeholders and can result in decisions that are not in the best interests of the organization or its stakeholders. Stakeholder Theory can also be difficult to operate, as it requires organizations to identify and engage with all relevant stakeholders, which can be a complex and time-consuming process (Dmytriyev et al., 2021).

In the context of this study, Stakeholder Theory can provide valuable insights. The theory suggests that the performance of agricultural projects is influenced by the interests and expectations of various stakeholders, such as farmers, workers, customers, and local communities. For instance, the influence of project risk identification practices on the performance of agricultural projects may depend on the extent to which these practices take into account the concerns and perspectives of stakeholders. If the risk identification

practices are perceived as being fair, transparent, and responsive to stakeholder needs, then stakeholders are more likely to support and engage with the project, which can lead to improved performance outcomes. On the other hand, if the risk identification practices are perceived as being biased, opaque, or unresponsive to stakeholder needs, then stakeholders may withhold their support or actively oppose the project, which can lead to reduced performance outcomes.

Similarly, the influence of project risk assessment, response planning, and monitoring and control practices on the performance of agricultural projects may also be contingent upon stakeholder interests and expectations. For instance, if the risk assessment practices are perceived as being rigorous, objective, and comprehensive, then stakeholders are more likely to trust the project and be willing to invest their resources and efforts in the project. However, if the risk assessment practices are perceived as being superficial, biased, or incomplete, then stakeholders may be hesitant to invest in the project, which can lead to reduced performance outcomes. Therefore, on the basis of Stakeholder Theory, it can be predicted that the performance of Ekaterra Tea Kenya PLC's agricultural projects would be higher when the company's project risk management practices are well-aligned with the interests and expectations of its stakeholders.

2.3.3 Resource-Based View

The Resource-Based View (RBV) is a conceptual model that highlights the role of an organization's internal resources and abilities in building and maintaining a competitive edge. Emerging in the 1980s and 1990s, this framework posits that an organization's distinct resources and abilities can lead to a lasting competitive advantage if they meet certain criteria, such as being valuable, rare, difficult to replicate, and not easily replaceable (Wernerfelt, 2022).

At its core, RBV emphasizes that resources and abilities are the foundation of competitive advantage (Stoelhorst, 2023). Resources include both tangible and intangible assets owned by an organization, such as physical infrastructure, financial reserves, and workforce expertise (Greve, 2021). Abilities, on the other hand, refer to the organization's capacity to effectively and efficiently use these resources to meet its goals (Ferreira & Ferreira, 2025). According to RBV, resources and abilities that are valuable, rare, hard to copy, and non-substitutable (often referred to as VRIN) can create a competitive advantage that endures over time. In other words, when an organization has resources and abilities that meet these criteria, it can achieve and sustain a competitive edge (Barney et al., 2021). Another key tenet of RBV is the heterogeneity of resources and capabilities across firms. This means that different organizations possess different resources and capabilities, which creates opportunities for competitive advantage (Gerhart & Feng, 2021). The strategic management of resources and capabilities is also critical to the creation and sustainability of competitive advantage. This requires organizations to identify and assess their unique resources and capabilities, and to develop and implement strategies that leverage these resources and capabilities to achieve their objectives (Barney et al., 2021).

One of the key strengths of RBV is its focus on the unique resources and capabilities of an organization (Greeve, 2021). By leveraging its unique resources and capabilities, an organization can differentiate itself from its competitors and create value for its stakeholders. RBV also emphasizes the importance of strategic management in leveraging an organization's resources and capabilities to create and sustain competitive advantage. However, RBV also has its limitations (Ployhart, 2021). One of the main criticisms of the theory is that it assumes that resources and capabilities are static and unchanging (Greeve, 2021). This may not be the case in dynamic and rapidly changing

environments. RBV also assumes that resources and capabilities are perfectly mobile and transferable, which may not be feasible in practice. Furthermore, RBV may not be applicable to all types of organizations, such as those in resource-constrained environments or those that rely on external resources and capabilities (Ferreira & Ferreira, 2025).

In the context of this study, the theory suggests that the company's unique resources and capabilities can provide a source of sustainable competitive advantage if they are valuable, rare, inimitable, and non-substitutable. For instance, the company's expertise in tea cultivation and processing, its established relationships with suppliers and customers and its proprietary technologies and processes may provide a source of sustainable competitive advantage. The influence of project risk management practices on the performance of agricultural projects may depend on the company's unique resources and capabilities. For instance, if the company has a strong risk management capability, then it may be better able to identify and mitigate risks associated with its agricultural projects, which can lead to improved performance outcomes. However, if the company lacks a strong risk management capability, then it may be more vulnerable to project risks, which can lead to reduced performance outcomes. Therefore, on the basis of RBV, it can be predicted that the performance of Ekaterra Tea Kenya PLC's agricultural projects would be higher when the company leverages its unique resources and capabilities in its project risk management practices.

2.4 Conceptual Framework

Figure 2.1 represents the conceptual framework of the study which delineates the logical structure underpinning the hypotheses that were evaluated.

Independent Variables

Dependent Variable

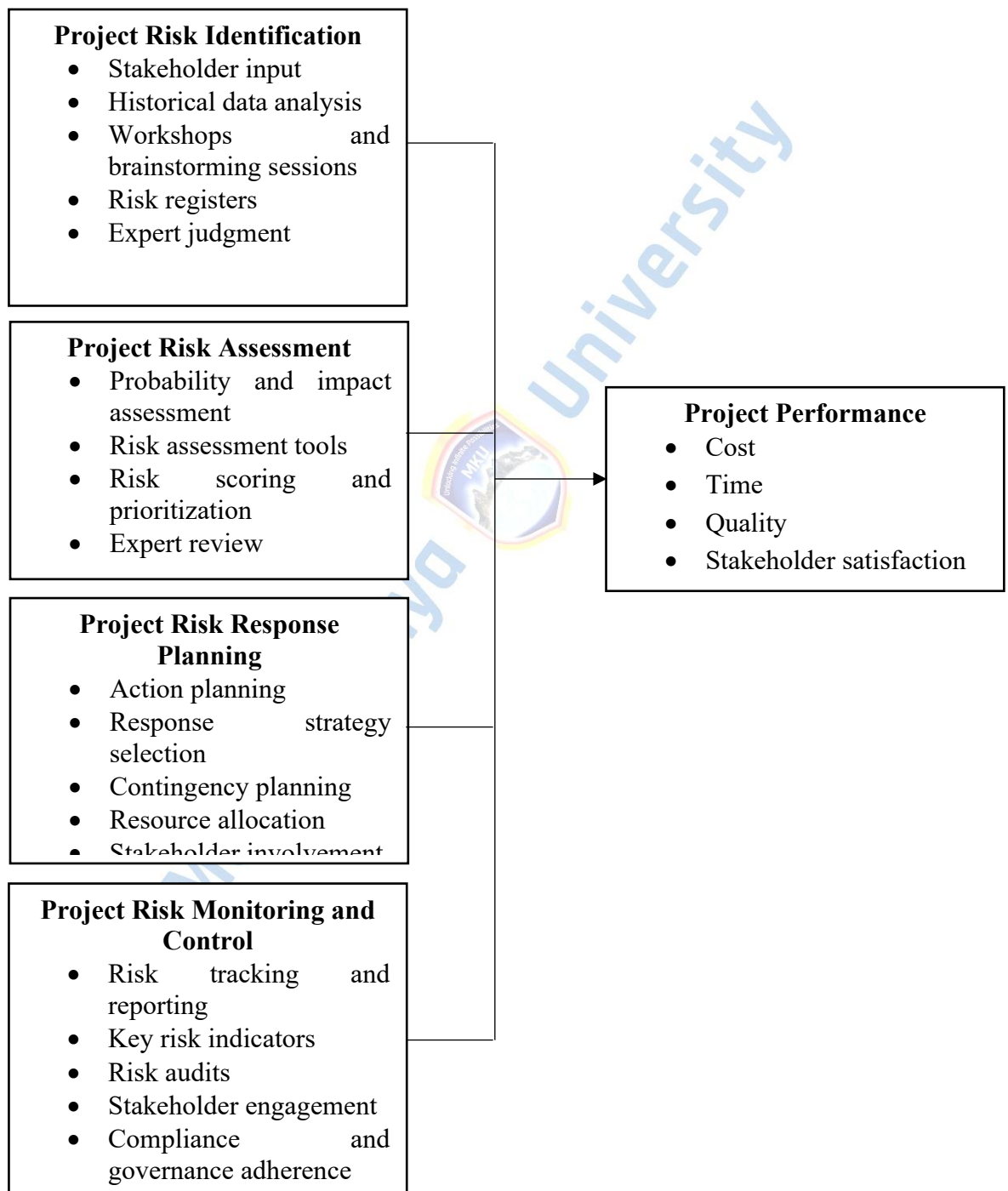


Figure 2.1: Conceptual Framework

2.5 Recap of Literature Review

The review analyzed several studies that investigated the relationship between project risk identification and project performance. These studies found that risk identification practices have a significant and positive impact on project performance (Algremazy et al., 2023; Otieno & Mutiso, 2021). However, the studies varied in their focus, with some focusing on construction projects, IT projects, and others on agricultural projects in different contexts. The review identified a research gap concerning the specific context of agricultural projects in Kenya, particularly those undertaken by Ekaterra Tea Kenya PLC.

The review also examined studies on project risk assessment and its impact on project performance. These studies found that risk assessment practices have a significant and positive impact on project performance (Aikpokhio et al., 2023; Murungi & Omwenga, 2022; Sangwa & Dushimimana, 2023; However, the findings varied based on the context, with some studies focusing on construction projects, environmental projects, and others on agricultural projects in different contexts. The review identified a research gap concerning the specific context of agricultural projects in Kenya, particularly those undertaken by Ekaterra Tea Kenya PLC.

Additionally, the review analyzed studies on project risk response planning and its impact on project performance. These studies found that risk response planning practices have a significant and positive impact on project performance (Fikadu & Kant, 2023; Kallow et al., 2022; Obondi, 2022). However, the findings varied based on the context, with some studies focusing on construction projects, and others on agricultural projects in different contexts. The review identified a research gap concerning the specific context of agricultural projects in Kenya, particularly those undertaken by Ekaterra Tea Kenya PLC.

Furthermore, the review examined studies on project risk monitoring and control and their impact on project performance. These studies found that risk monitoring and control practices have a significant and positive impact on project performance (Kallow et al., 2022; Fikadu & Kant, 2023; Obondi, 2022). However, the findings varied based on the context, with some studies focusing on construction projects, health systems digitalization projects, and others on agricultural projects in different contexts. The review identified a research gap concerning the specific context of agricultural projects in Kenya, particularly those undertaken by Ekaterra Tea Kenya PLC.

Lastly, the review highlighted the relevance of Contingency Theory, Stakeholder Theory, and Resource-Based View to the study's objectives. It was found that Contingency Theory provides a useful framework for understanding how project risk management practices can be tailored to fit the specific context and needs of an organization. The review also found that Stakeholder Theory highlights the importance of engaging stakeholders in project risk management practices to ensure that their needs and expectations are met. Resource-Based View, on the other hand, emphasizes the need for organizations to manage their external resources and dependencies to enhance project performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research framework that guided the study. It explains the research design, identifies the population and sampling techniques used, and details the tools employed for data collection. Furthermore, it describes the approach taken to analyze the collected data, all of which were intended to meet the study's objectives.

3.2 Research Methodology

The research approach for this study was quantitative in nature, employing structured surveys to collect numerical data to explore the relationship between PRM practices and the performance of agricultural projects by Ekaterra Tea PLC. This approach was chosen for its ability to systematically quantify relationships and behaviors, facilitating statistical analysis to identify trends and associations (Creswell & Creswell, 2022). By utilizing a standardized measurement tool (survey questionnaire), the study aimed to gain numerical insights into the relationship between the variables of interest

3.3 Research Design

This study employed a cross-sectional research design, which involves the collection of data from a population at a single point in time (Babbie, 2022). This approach allowed for examination of relationships between variables of interest within a specific timeframe. The rationale for using this design included its ability to simultaneously facilitate investigation of PRM practices and project performance across different agricultural projects, its cost-effectiveness, and its capacity to provide a snapshot of the current situation.

In this study, the independent variables were project risk identification, project risk assessment, project risk response planning, and project risk monitoring and control.

These variables represented the risk management practices implemented within the organization and were assumed to influence project performance. Project risk identification referred to the process of identifying potential risks that may affect the successful completion of a project. Project risk assessment involved evaluating the identified risks to determine their potential impact on the project objectives and the likelihood of occurrence. Project risk response planning entailed developing strategies and actions to mitigate, avoid, transfer, or accept identified risks. Project risk monitoring and control involved continuous monitoring of identified risks throughout the project lifecycle and implementing appropriate measures to control or mitigate them as necessary. Project performance referred to the overall success or achievement of project objectives within the specified constraints of time, cost, quality, scope, and other relevant criteria. In the context of the study, project performance served as the dependent variable, meaning it was the outcome or result that was influenced by the independent variables (PRM practices).

3.4 Location of the Study

The research was conducted in Kericho County, Kenya, one of the 47 administrative counties of the Republic. Located in the southern section of the Great Rift Valley, it lies approximately 256 kilometers from Nairobi, the national capital. The county spans an area of 2,479 square kilometers and sits atop a hilly plateau between the Mau Escarpment and the lower-lying regions of Kisumu County (County Government of Kericho, 2024). Kericho County is renowned for its significant contributions to the country's agricultural sector, particularly in tea cultivation. Ekaterra Tea Kenya PLC, being a prominent player in the tea industry, operated several agricultural projects within this region. The selection of Kericho County as the study location provided access to a concentrated area where

agricultural projects were prevalent, facilitating data collection and research interactions with stakeholders.

3.5 Target Population

The target population for this study comprised the managers of all the agricultural projects within Ekaterra Tea Kenya PLC. This included tea cultivation, processing, and any related agricultural activities undertaken by the organization. At the time of the study, there were 70 agricultural projects within the company (Lipton, 2024). With only 70 agricultural projects within Ekaterra Tea Kenya PLC, the population was relatively small, making it unnecessary to utilize sampling techniques. Therefore, a census approach was utilized for data collection.

3.6 Construction of Research Instrument

A survey questionnaire was used to comprehensively evaluate PRM practices and performance of agricultural projects within Ekaterra Tea Kenya PLC. The survey instrument was structured to evaluate critical variables, including project risk identification, risk assessment methodologies, risk response planning, risk monitoring and control protocols, and overall project performance. Likert-type scales were utilized to quantify participants' perceptions of these variables, enabling detailed quantitative evaluations

The selection of a survey questionnaire as the primary data collection tool was supported by several factors. Initially, the structured format facilitated systematic data gathering from a diverse sample of agricultural projects within Ekaterra Tea Kenya PLC, thereby ensuring a representative sample that improved the generalizability of the findings. Second, the standardized design of the questionnaire ensured consistency in data

collection, which enabled comparative analysis and statistical evaluation to discern correlations between PRM practices and project outcomes. Moreover, the incorporation of Likert-type scales provided a uniform method for measuring respondents' attitudes and perceptions, yielding quantitative data suitable for statistical analysis (Babbie, 2022).

3.7 Testing for Validity and Reliability

3.7.1 Validity

Validity refers to the precision and relevance of conclusions derived from data analysis, whereas reliability relates to the repeatability and dependability of measurement processes (Babbie, 2022). To strengthen both validity and reliability in this research, multiple strategies were implemented. Content validity was prioritized to ensure the relevance and accuracy of findings, achieved through meticulous selection and formulation of survey items. This process involved an in-depth analysis of existing literature and expert consultation with the researcher's academic advisors, ensuring that survey questions effectively addressed key dimensions of PRM practices and project outcomes.

3.7.2 Reliability

To ensure reliability, the questionnaire was thoughtfully developed to reduce measurement errors and promote consistent responses. Standardized questions, straightforward instructions, and well-established scales were incorporated where applicable. A pre-test was conducted with a small group of agricultural project managers (10) at a separate company (Finlays Kenya Ltd), which helped pinpoint and resolve any unclear or inconsistent elements in the questions. This step ensured that the final version of the questionnaire produced dependable data. Additionally, internal consistency reliability was evaluated for constructs assessed through multiple items, such as project risk identification, risk assessment, risk response planning, risk monitoring and control, and project performance. Cronbach's alpha was used for this purpose, confirming that

the items within each construct aligned with the same underlying concept and contributed to the overall reliability of the measurements. Table 3.1 shows the results of the Cronbach's alpha for the variables.

Table 3.1: Reliability Coefficients for Study Variables

Construct	Number of Items	Cronbach's alpha
Project risk identification	5	0.812
Project risk assessment	5	0.857
Project risk response planning	5	0.844
Project risk monitoring and control	5	0.829
Project performance	5	0.873

The results in Table 3.1 indicate that all the constructs achieved Cronbach's alpha values well above the minimum acceptable threshold of 0.70, signifying high internal consistency of the questionnaire items. Specifically, the reliability coefficients ranged from 0.812 to 0.873, suggesting that the instrument used in this study was both reliable and suitable for measuring the intended constructs. This indicates that respondents understood and interpreted the survey questions consistently, thereby enhancing the credibility and dependability of the data collected.

3.8 Data Collection Methods and Procedures

Prior to beginning data collection, ethical clearance was obtained from the relevant university authorities to ensure compliance with ethical standards for research involving human participants. Permission was also secured from the appropriate management within Ekaterra Tea Kenya PLC to carry out the study in the organization. The surveys were administered either electronically or in person, depending on the preferences and accessibility of the participants.

For electronic surveys, participants were provided with a secure link to access the questionnaire online. In cases where in-person administration was chosen, the researcher facilitated the process directly. The study focused on project managers and key decision-

makers within Ekaterra Tea Kenya PLC, with one participant selected from each agricultural project to complete the survey. These individuals were chosen based on their knowledge of risk management practices and the performance of their respective projects. Their roles included positions such as project manager, agricultural specialist, or finance officer.

Participants were given clear instructions about the study's objectives, the confidentiality of their responses, and the deadlines for submission. To encourage a high response rate, follow-up reminders were sent, and incentives were considered if necessary. Once the responses were received, the collected data were carefully recorded and stored securely to ensure confidentiality and maintain the integrity of the information throughout the research process.

3.9 Data Analysis Techniques and Procedures

After data collection was completed, the quantitative data were carefully processed and analyzed to generate meaningful insights aligned with the research objectives. The data processing and analysis followed a series of steps. First, the quantitative data were cleaned to ensure accuracy, consistency, and reliability. This involved identifying and addressing any missing values, outliers, or inconsistencies that could affect the dataset's quality. Next, responses to closed-ended questions were coded numerically to prepare them for statistical analysis. Each response category was assigned a unique numerical code, and the coded data were entered into the Statistical Package for the Social Sciences (SPSS) software.

Once the data were coded and entered, descriptive statistical methods were employed to summarize and describe the characteristics of the variables under study. Measures such as means, standard deviations, frequencies, and percentages were calculated to provide a clear overview of the quantitative data. Following this, bivariate analysis was conducted

to examine relationships between variables. To investigate the relationship between project risk management practices (including project risk identification, risk assessment, risk response planning, and risk monitoring and control) and project performance, both simple and multiple linear regression analyses were applied. Multiple linear regression was specifically used to assess the combined effect of the independent variables (risk management practices) on the dependent variable (project performance), allowing for a more comprehensive understanding of their relationships. The significance levels (e.g., *p*-values) of the regression coefficients were reviewed to determine whether the relationships between independent and dependent variables were statistically significant. Hypotheses were rejected if the *p*-values were below the predetermined significance level ($\alpha = 0.05$), indicating that the observed relationships were unlikely to be due to chance. Conversely, if *p*-values exceeded this threshold, hypotheses were not rejected. To ensure the validity and reliability of the regression results, diagnostic tests were performed to check the assumptions of the regression model, including linearity, normality, homoscedasticity, multicollinearity, and autocorrelation. Linearity and homoscedasticity were evaluated using a scatterplot of residuals against predicted values, ensuring that the residuals were randomly scattered and exhibited constant variance. Normality of residuals was assessed using a normal P-P (probability-probability) plot, visually comparing the distribution of residuals to a normal distribution. Multicollinearity among the independent variables was examined using variance inflation factors (VIF), with VIF values below 10 indicating acceptable levels of multicollinearity. Additionally, autocorrelation in the residuals was tested using the Durbin-Watson test, with values close to 2 suggesting no significant autocorrelation. These diagnostic tests collectively ensured that the regression model met the necessary assumptions, thereby enhancing the robustness and credibility of the findings.

3.10 Ethical Considerations

The research followed ethical guidelines by protecting the privacy and anonymity of participants. Participants were clearly informed about the study's objectives, and their involvement was entirely voluntary. They were assured that their responses would remain confidential and would only be used for research purposes. Participants were also informed that they could leave the study at any time without facing any consequences. Additionally, ethical approval was obtained from the appropriate institutional review board prior to data collection.



CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the analysis and interpretation of data collected to address the study's objectives. It begins by detailing the response rate and providing background information about the respondents, offering context for the analysis. This is followed by the presentation and interpretation of regression results examining relationships between the variables of interest to address the research objectives. The chapter concludes with a discussion of these findings, contextualizing them within existing literature.

4.2 Response Rate

The response rate reflects the percentage of individuals from the selected group who fully completed and submitted the survey, yielding data that can be analyzed. This section outlines the response rate achieved in the study, with the detailed breakdown presented in Table 4.1. The findings are discussed to assess the adequacy of the response rate in relation to the study's objectives.

Table 4.1: Response Rate

Survey Status	Frequency	Percentage
Completed surveys	68	97.14
Non-respondents	2	2.86
Total	70	100

Source: Researcher (2025)

The study targeted 70 respondents, of which 68 completed and returned the survey, yielding a response rate of 97.1%. The high response rate significantly surpasses the 70% threshold typically deemed sufficient for minimizing non-response bias. With only two non-responses, the dataset retains minimal gaps, ensuring a representative sample aligned with the study's scope. Such a rate enhances confidence in the generalizability of findings, as attrition or refusal biases are negligible.

4.3 Background Information

This section outlines the demographic and professional profiles of the participants, providing background information to support the interpretation of the study's results. It covers key aspects such as gender distribution, age ranges, the highest level of education attained, current roles in the project, and the length of time respondents have been involved in the project. These details are essential for understanding the sample composition and its alignment with the study's objectives. The findings are presented to highlight the diversity and representativeness of the respondents, ensuring a comprehensive analysis of the data.

4.3.1 Gender Distribution of the Respondents

Participants were requested to indicate their sex as part of the initial demographic data collection. The proportions representing each gender within the respondent group are graphically illustrated in Figure 4.1. This demographic information is presented to offer a clear understanding of the sample's gender distribution.

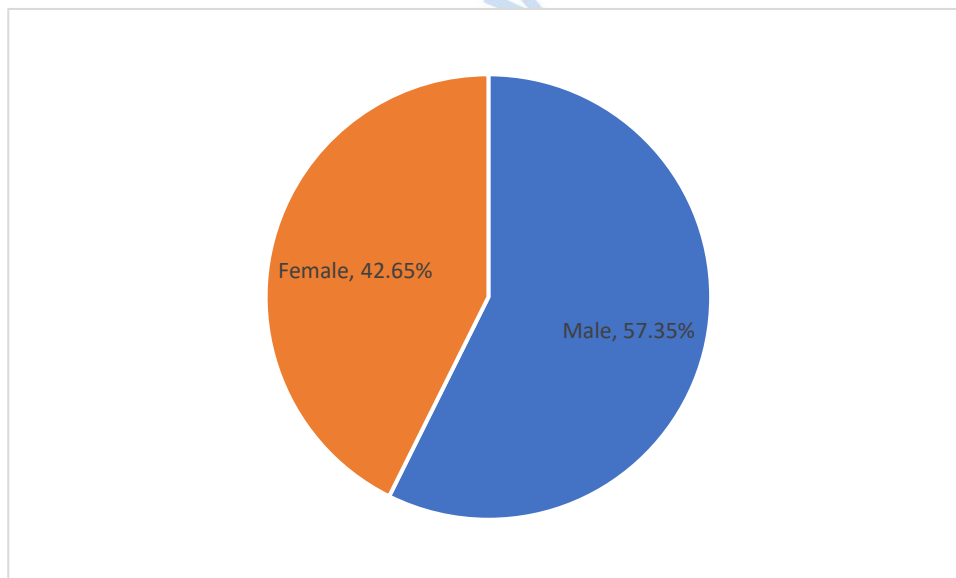


Figure 4.1: Gender Distribution of Respondents

Source: Researcher (2025)

Figure 4.1 illustrates that the majority of respondents were male, with 57.35% of the respondents identifying as such. This predominant representation of males suggests that the agricultural projects at Ekaterra Teak Kenya PLC might be more male-oriented, reflecting either industry norms or targeted recruitment practices. The gender imbalance could influence project dynamics by favoring male perspectives in decision-making processes and operational strategies.

4.3.2 Age Distribution of the Respondents

The respondents were asked to provide their age. The responses were compiled and organized into a frequency distribution, with corresponding percentage values calculated for each age group. The findings are visually represented in Figure 4.2, which utilizes a bar chart to display the age distribution of the respondents.

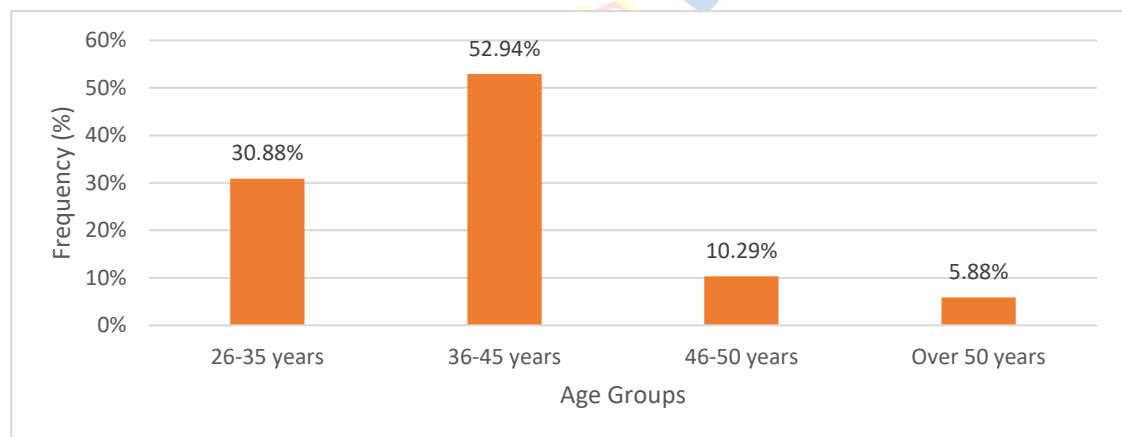


Figure 4.2: Age Distribution of the Respondents

Source: Researcher (2025)

Figure 4.2 illustrates that the largest proportion of respondents were within the 36–45 age group (52.94%), which comprised more than half of the sample. This finding indicates that mid-career professionals predominantly hold leadership roles in the agricultural projects at Ekaterra Teak Kenya PLC. The substantial number of managers in the 26–35 bracket (30.88%) indicates that younger professionals are also entrusted with managerial responsibilities, reflecting a dynamic approach to leadership. Fewer

managers in the older age brackets, particularly those over 50 (5.88%), imply that the industry may prefer leaders who combine both contemporary management skills and practical experience. Overall, this finding suggests that the agricultural projects relied on a blend of youthful energy and mid-career expertise, which could be key to their operational effectiveness and strategic decision-making.

4.3.3 Distribution of Respondents by Level of Education

The educational background of the participants was evaluated to gain insights into the academic qualifications of the study sample. This assessment provides an understanding of the level of expertise and knowledge present within the agricultural project. The distribution of respondents across various educational categories is illustrated in Figure 4.3.

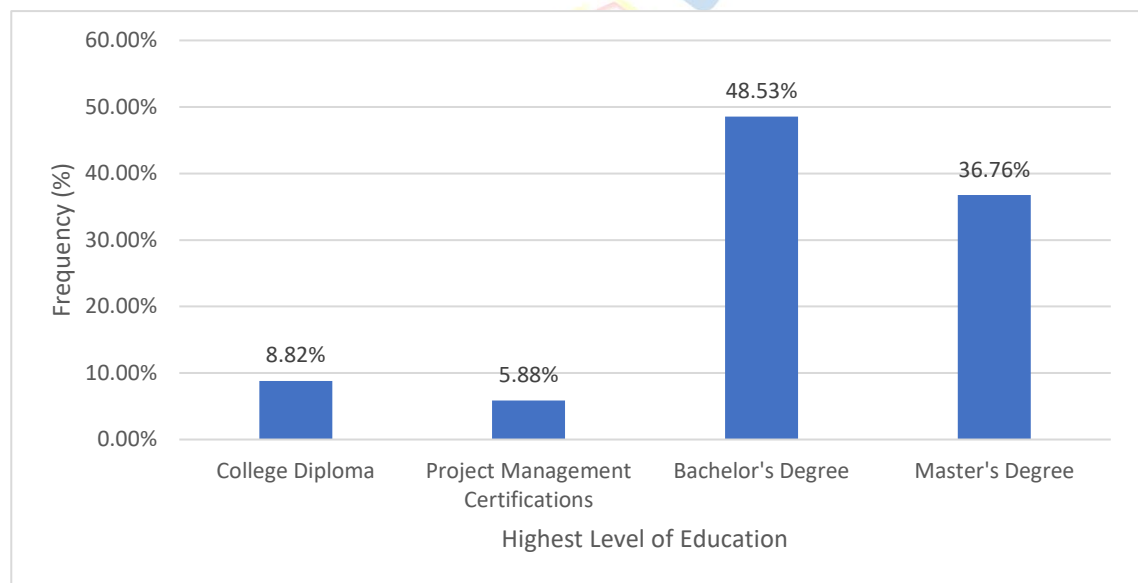


Figure 4.3: Distribution of Respondents by Level of Education

Source: Researcher (2025)

Figure 4.3 illustrates the educational qualifications of respondents. A plurality held a bachelor's degree (48.53%), suggesting that a foundational university education is common among leadership positions within the agricultural projects at Ekaterra Tea Kenya PLC. A substantial proportion also possessed a master's degree (36.76%),

indicating that advanced education is valued and plays a significant role. The smaller percentages with college diplomas (8.82%) and project management certifications (5.88%) suggest that while these qualifications are present, they are less prevalent than degree-level education. Overall, the findings highlight that while advanced education is important, a bachelor's degree appears to be the most common educational background for managerial roles, potentially balancing theoretical knowledge with practical experience in the field.

4.3.4 Role in the Project

The participants were requested to specify their position or role in the project. The resultant responses were subsequently distilled into a concise presentation featuring frequencies and percentages. The outcome of this analysis is depicted in Figure 4.4.

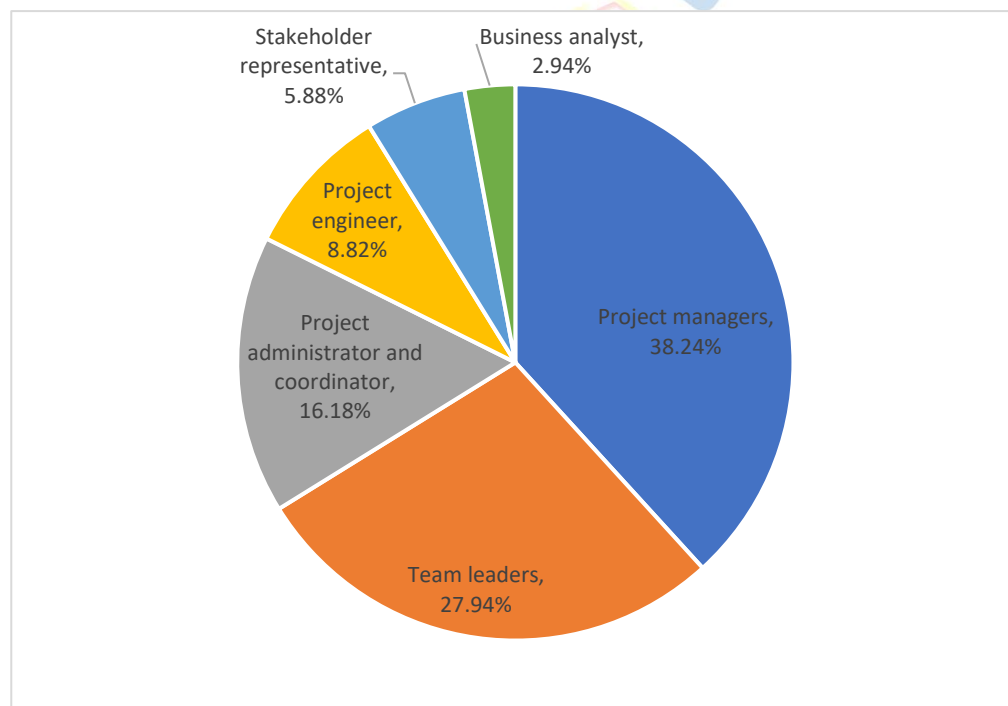


Figure 4.4: Distribution of Respondents by Role in the Project

Source: Researcher (2025)

Figure 4.4 reveals a distributed leadership model within the agricultural projects at Ekaterra Tea Kenya PLC. While project managers constitute the largest group (38.24%),

Team Leaders also hold a significant presence, indicating a balance between strategic oversight and direct team management. The inclusion of other roles, such as Project Administrators, Engineers, Stakeholder Representatives, and Business Analysts, points to a diverse range of expertise contributing to project success. This suggests that leadership is not concentrated solely with Project Managers, but is shared across different levels and specializations within the teams, contrasting with a highly centralized structure.

4.3.5 Length of Time with the Company

The length of time participants had been associated with the company was examined to understand their experience and tenure within the organization. This analysis provides insights into the distribution of employees based on their duration of service. The findings are presented in Figure 4.5, which visually represents the breakdown of respondents by their length of time with the company.

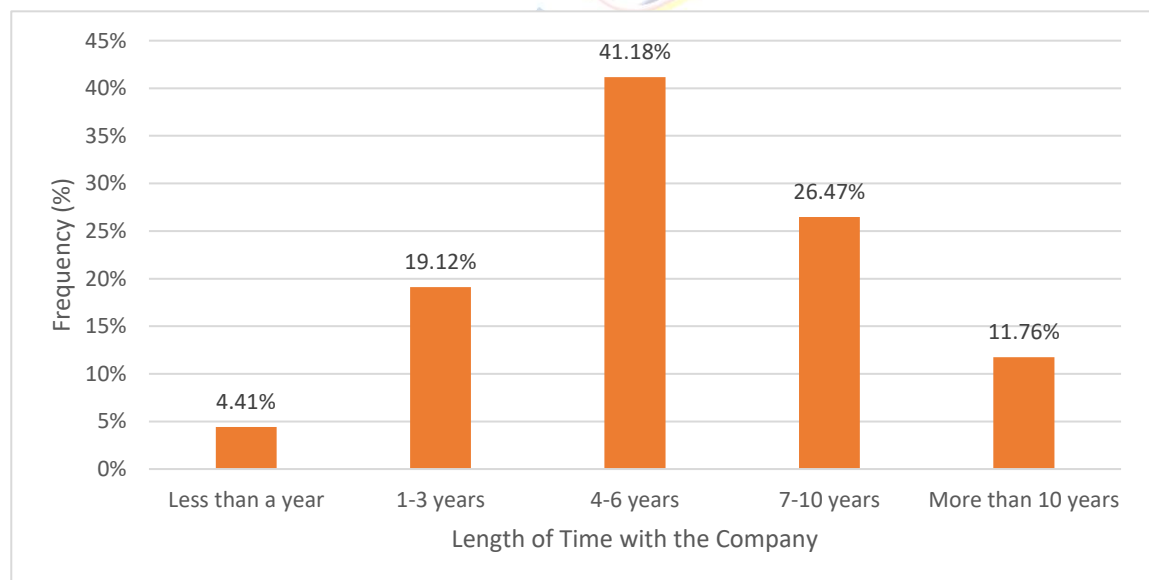


Figure 4.5: Distribution of Respondents by Length of Time with the Company

Source: Researcher (2025)

Figure 4.5 indicates that the majority of the respondents had been with the company for 4–6 years (41.18%), suggesting a strong presence of mid-tenure professionals in

leadership roles. This trend implies that managerial experience within Ekaterra Tea Kenya PLC is largely shaped by individuals who have accumulated a moderate level of institutional knowledge while still being adaptable to evolving industry demands. The presence of managers with longer tenures further suggests that the company valued continuity and retained experienced leaders, while the smaller proportion of those with less than three years of experience indicates limited recent managerial appointments. Generally, this finding highlights a balance between experience and fresh perspectives, suggesting that leadership within the agricultural projects was driven by both established expertise and newer insights.

4.4 Descriptive Statistics of Study Variables

This section provides an in-depth examination of the variables of interest, shedding light on their manifestation within the study. The variables explored include project risk identification, project risk assessment, project risk response planning, project risk monitoring and control, and overall project performance. Statistical measures such as frequencies, percentages, mean values, and standard deviations were employed to effectively summarize the collected survey data pertaining to these variables.

4.4.1 Project Risk Identification Practices

The participants were asked to rate the extent of implementation of project risk identification practices in agricultural projects. A Likert scale ranging from 1 (Not practice) to 5 (Very large extent) was used. The analysis of these practices utilized percentages, mean and standard deviation to quantify the level of adoption across the agricultural projects. The detailed results of this analysis are presented in Table 4.2.

Table 4.2: Descriptive Statistics for Project Risk Identification Practices

Statement	<i>N</i>	Small Extent (%)	Moderate Extent (%)	Large Extent (%)	Very Large Extent (%)	<i>M</i>	<i>SD</i>
Expert judgement is consistently leveraged in identifying risks	68	0.00	8.80	52.90	38.20	4.29	0.62
Registers or records of risks are kept helping track risks throughout the lifecycle of a project	68	0.00	17.60	38.20	44.10	4.26	0.75
Analysis of historical data is systematically used to identify risks of the project	68	0.00	17.60	52.90	29.40	4.12	0.68
Workshops and brainstorming sessions are regularly conducted to identify risks in the project	68	1.50	23.50	38.20	36.80	4.10	0.81
Stakeholder input is routinely sought and actively incorporated into decisions of the project	68	1.50	19.10	50.00	29.40	4.07	0.74
Overall Project Risk Identification Score	68					4.17	0.57

Source: Researcher (2025)

The overall findings, as presented in Table 4.2, reveal that project risk identification practices are highly implemented across the agricultural projects at Ekaterra Tea Kenya PLC, with a composite mean score of 4.17 ($SD = 0.57$). This high score indicates that project teams adopt a proactive approach to identifying risks, which is fundamental to effective project management. The key practices that drive this robust risk identification

process include leveraging expert judgment and maintaining detailed risk registers. These practices not only provide immediate insight into potential risks but also create a structured framework for continuous risk monitoring.

Expert judgment emerged as the most influential practice, recording a mean of 4.29 ($SD = 0.62$). A notable finding is that over 90% of respondents reported that expert judgment is applied to a large or very large extent. This high reliance on expert insights suggests that seasoned professionals play a crucial role in the early detection and evaluation of risks, thereby underpinning the decision-making process. Similarly, the practice of keeping registers or records of risks is strongly embedded within project routines, with a mean of 4.26 ($SD = 0.75$). High percentages of respondents reported indicating large-scale application highlight the importance of systematic documentation in tracking risks throughout the project lifecycle. In particular, a significant majority of respondents, 82.3% in total (combining 38.2% and 44.1%), reported that these registers are utilized to a large or very large extent to track risks throughout project lifecycles.

The analysis also revealed that the use of historical data ($M = 4.12$, $SD = 0.68$) and collaborative brainstorming sessions ($M = 4.10$, $SD = 0.81$) are integral to the risk identification process. These practices contribute to a data-driven and inclusive approach, ensuring that lessons learned from past experiences and diverse perspectives are utilized to foresee potential challenges. Although stakeholder input received a slightly lower mean score ($M = 4.07$, $SD = 0.74$), it remains a vital component of the overall strategy, indicating that incorporating external viewpoints is valued in refining risk assessments.

In general, the key findings suggest that a multi-faceted risk identification framework—characterized by expert judgment, systematic record-keeping, historical analysis, and collaborative engagement—is well established in these projects. This comprehensive

approach likely enhances the projects' ability to anticipate, prioritize, and manage risks effectively, thereby contributing to overall project performance and success.

The findings converge with much of the existing literature in highlighting the widespread adoption of robust risk identification practices, while also revealing divergences that underscore the need for context-specific research in agricultural settings. Studies such as Alsaadi and Norhayatizakuan (2021), Algremazy et al. (2023), and Igihozo and Irechukwu (2022) emphasize the extensive use of risk identification practices, such as expert judgment, historical data analysis, and stakeholder engagement, within the construction sector across diverse geographical contexts like Oman, Libya, and Rwanda. Similarly, Otieno and Mutiso (2021), Omondi and Chege (2023), and Jackson and Mungai (2023) document the prevalence of structured risk identification practices in Kenyan agricultural projects, aligning with the current study's findings of a comprehensive, multi-faceted risk identification framework characterized by practices like expert judgment and systematic record-keeping.

4.4.2 Project Risk Assessment Practices

The respondents were requested to assess the degree to which project risk assessment practices are implemented in agricultural projects. A Likert scale ranging from 1 (Not practiced) to 5 (To a very large extent) was employed to capture their perceptions. The analysis of these practices involved the use of percentages, mean scores and standard deviation to quantify the level of adoption across various agricultural initiatives. The results of the descriptive analysis of these practices are displayed in Table 4.3.

Table 4.3: Descriptive Statistics for Project Risk Assessment Practices

Statement	N	Small Extent (%)	Moderate Extent (%)	Large Extent (%)	Very Large Extent (%)	M	SD
Probability and impact assessments are systematically conducted to assess potential risks in the project	68	1.50	11.80	52.90	33.80	4.19	0.70
Risks are scored and prioritized based on their potential impact and likelihood of occurrences	68	0.00	16.20	52.90	30.90	4.15	0.68
Input from experts is sought to validate and refine risk assessments	68	1.50	16.20	50.00	32.40	4.13	0.73
Specialized tools and techniques are used to identify and analyzed risks in the project	68	0.00	22.10	44.10	33.80	4.12	0.74
Risk assessment processes are regularly reviewed and improved based on lessons learned and feedback	68	2.90	27.90	42.60	26.50	3.93	0.82
Overall Project Risk Assessment Score	68					4.10	0.52

Source: Researcher (2025)

The analysis of project risk assessment practices in agricultural projects at Ekaterra Tea Kenya PLC, as shown in Table 4.3, demonstrates that systematic evaluation of potential risks is an integral part of project management. Respondents indicated that probability and impact assessments are systematically conducted ($M = 4.19$, $SD = 0.70$), with 52.90% reporting that this practice is implemented to a large extent and 33.80% to a very large extent. This high level of endorsement suggests that managers prioritize evaluating both the likelihood and potential impact of risks as a critical component of effective risk prioritization and mitigation planning. Overall, these results highlight the importance of structured risk evaluations in supporting proactive decision-making.

Additional assessment practices further highlight a strong, data-driven approach to risk management. For instance, risks are scored and prioritized based on their potential impact

and likelihood ($M = 4.15$, $SD = 0.68$), and expert input is regularly sought to validate and refine these assessments ($M = 4.13$, $SD = 0.73$). The use of specialized tools and techniques also received robust support ($M = 4.12$, $SD = 0.74$), with 44.10% and 33.80% of respondents indicating that these methods are applied to a large and very large extent, respectively. These findings imply that the integration of both quantitative methods and expert judgement is fundamental to the risk assessment framework in these projects.

Despite these strong practices, the regular review and improvement of risk assessment processes based on lessons learned received a comparatively lower rating ($M = 3.93$, $SD = 0.82$). This suggests that while most risk assessment practices are well established, there remains an opportunity to further enhance continuous improvement efforts within the risk management cycle. The overall composite risk assessment score ($M = 4.10$, $SD = 0.52$) reflects a mature framework that supports effective decision-making and strategic planning. In summary, the results indicate that agricultural projects at Ekaterra Tea Kenya PLC employ a comprehensive and systematic approach to risk assessment, which is likely to contribute to improved project outcomes by enabling timely and informed responses to emerging risks.

The high endorsement of systematic probability and impact assessments, risk prioritization, expert input, and the use of specialized tools is consistent with the literature's emphasis on formalized risk management practices in complex project environments (Alsaadi & Norhayatizakuan, 2021; Elokby et al., 2021). These practices suggest a proactive stance in identifying and addressing potential risks, aligning with observations in agricultural contexts where structured risk management is critical due to inherent uncertainties (Otieno & Mutiso, 2021). However, the relatively lower focus on regularly reviewing and improving risk assessment processes, as evidenced by the lower mean score, indicates an inconsistency with the literature's advocacy for iterative

learning and refinement as a hallmark of mature risk management frameworks (Aldaiyat, 2021; Omondi & Chege, 2023).

4.4.3 Project Risk Response Planning Practices

The respondents were asked to evaluate the extent to which project risk response planning practices are implemented in agricultural projects at Ekaterra Tea Kenya PLC. A Likert scale ranging from 1 (Not practiced) to 5 (Very great extent) was utilized to gauge their responses. The analysis of these practices relied on descriptive statistics, including percentages, mean and standard deviation, to assess the level of adoption across the agricultural projects. The outcomes of this analysis are presented in Table 4.4.

Table 4.4: Descriptive Statistics for Project Risk Response Planning Practices

Statement	<i>N</i>	Small Extent (%)	Moderate Extent (%)	Large Extent (%)	Very Large Extent (%)	<i>M</i>	<i>SD</i>
Appropriate strategies are carefully chosen to mitigate identified risks.	68	0.00	13.20	50.00	36.80	4.24	0.67
Clear plans of action are developed to address identified risks, outlining specific steps to be taken in response.	68	2.90	13.20	44.10	39.70	4.21	0.78
Key stakeholders are actively engaged in the development and implementation of risk response plans to ensure alignment with project goals	68	2.90	11.80	50.00	35.30	4.17	0.75
Contingency plans are developed to prepare for unexpected risks, outlining alternative courses of action	68	1.50	16.20	47.10	35.30	4.16	0.75
Resources are effectively assigned to implement risk response plans.	68	1.50	13.20	55.90	29.40	4.13	0.68
Overall Project Risk Response Planning Score	68					4.17	0.57

Source: Researcher (2025)

Table 4.4 reveals that project risk response planning practices are well-implemented in the agricultural projects at Ekaterra Tea Kenya PLC. For instance, the practice of selecting appropriate strategies to mitigate identified risks achieved the highest mean rating ($M = 4.24$, $SD = 0.67$), with 50% of respondents indicating a large extent of use and an additional 36.80% reporting a very large extent. This suggests that project teams place significant emphasis on choosing effective risk mitigation strategies. The strong reliance on these strategies highlights their central role in managing uncertainties and aligning risk responses with overall project objectives.

Similarly, clear plans of action are highly valued, with a mean rating of 4.21 ($SD = 0.78$). A combined 83.80% of respondents indicated that this practice is implemented to either a large (44.10%) or very large extent (39.70%), reflecting the importance of detailed action plans in addressing identified risks. In addition, active stakeholder engagement in the development and implementation of risk response plans received a mean score of 4.17 ($SD = 0.75$), with 50% and 35.30% of respondents, respectively, reporting large and very large extents of application. These results suggest that involving key stakeholders is considered essential for ensuring that risk responses are well aligned with project goals and benefit from diverse perspectives.

Contingency planning and effective resource allocation also feature prominently in risk response practices. Contingency plans, which prepare projects for unexpected risks, received a mean rating of 4.16 ($SD = 0.75$), with 47.10% of respondents indicating a large extent of implementation and 35.30% a very large extent. Likewise, the effective assignment of resources to implement risk response plans yielded a mean score of 4.13 ($SD = 0.68$), with 55.90% of respondents indicating that it is applied to a large extent and 29.40% to a very large extent. Overall, the composite risk response planning score of 4.17 ($SD = 0.57$) highlights a robust and proactive approach to managing risks,

suggesting that these projects are well-equipped to handle uncertainties through systematic and well-coordinated risk response strategies.

The descriptive findings suggest that project risk response planning practices are well-integrated in Ekaterra Tea Kenya PLC's agricultural projects, with high mean scores across key dimensions such as strategy selection, action planning, stakeholder engagement, contingency planning, and resource allocation. These results align with broader literature emphasizing the importance of structured risk response planning in enhancing project outcomes, though existing studies largely focus on non-agricultural contexts. For instance, Sangwa and Dushimimana (2023) and Nanette and Wabala (2025) highlight the positive role of risk response planning in development and urban projects, while Ng'etich and Munene (2024) demonstrate its relevance in infrastructure.

4.4.4 Project Risk Monitoring and Control Practices

The participants were requested to indicate the extent to which project risk practices are implemented in agricultural projects at Ekaterra Tea Kenya PLC. A Likert scale ranging from 1 (Not practiced) to 5 (Very great extent) was used to rate their responses. The analysis of these practices relied on descriptive statistics, including percentages, mean and standard deviation, to assess the level of adoption across the agricultural projects. The results of this analysis are presented in Table 4.5.

Table 4.5: Descriptive Statistics for Project Risk Monitoring and Control

Statement	N	Small Extent (%)	Moderate Extent (%)	Large Extent (%)	Very Large Extent (%)	M	SD
Regular risk audits are conducted to assess the effectiveness of risk management processes and controls	68	0.00	16.20	25.00	58.80	4.43	0.76
Adherence to compliance standards and governance protocols is enforced to ensure alignment with the project requirements	68	0.00	10.30	38.20	51.50	4.41	0.67
Key risk indicators are used to provide early warnings of potential risks, allowing for timely mitigation actions	68	1.50	16.20	25.00	58.80	4.38	0.75
Stakeholders are actively involved in risk monitoring and control activities, providing input and feedback on risk management processes	68	0.00	13.20	36.80	50.00	4.37	0.71
Regular tracking and reporting mechanisms are in place to monitor identified risks throughout the project lifecycle	68	2.90	7.40	41.20	48.50	4.35	0.75
Overall Project Risk Monitoring and Control Score	68					4.39	0.57

Source: Researcher (2025)

The analysis of project risk monitoring and control practices, as evidenced in Table 4.5, indicates a robust commitment to managing risks throughout the project lifecycle at Ekaterra Tea Kenya PLC. The overall mean score of 4.39 ($SD = 0.57$) reflects the fact that these practices are implemented to a very large extent. Notably, regular risk audits received a mean rating of 4.43 ($SD=0.76$), with 58.80% of respondents indicating that these audits are conducted to a very large extent, which highlights the importance placed

on evaluating the effectiveness of risk management processes. This high level of adherence suggests that continuous evaluation and control mechanisms are integral to maintaining project integrity and ensuring timely interventions.

Adherence to compliance standards and governance protocols also appears to be well-embedded, with a mean rating of 4.41 ($SD=0.67$) and over 51% of respondents reporting that this practice is implemented to a very large extent. Additionally, key risk indicators are used effectively, as evidenced by a mean rating of 4.38 ($SD=0.75$), with 58.80% of participants indicating a very large extent of use. These practices help provide early warnings of potential risks, enabling timely mitigation actions. The systematic use of such tools indicates that the projects benefit from a proactive approach, where early detection and intervention are prioritized to mitigate adverse outcomes.

Stakeholder involvement and regular tracking and reporting mechanisms further contribute to a comprehensive risk monitoring framework. For instance, stakeholder engagement in risk monitoring achieved a mean of 4.37 ($SD=0.71$), while regular tracking and reporting mechanisms obtained a mean score of 4.35 ($SD=0.75$), with nearly half of the respondents (48.50%) indicating that these practices are implemented to a very large extent. Overall, the findings suggest that the projects employ a multifaceted approach to risk monitoring and control, combining rigorous audits, compliance adherence, and proactive tracking with strong stakeholder participation. In general, these results imply that the agricultural projects at Ekaterra Tea Kenya PLC are well-equipped with effective risk monitoring and control practices, which likely contribute to improved project performance and strategic decision-making.

The descriptive findings on project risk monitoring and control practices at Ekaterra Tea Kenya PLC reveal a well-structured and proactive approach to managing project risks. These practices, which include regular audits, adherence to compliance protocols, the

use of key risk indicators, stakeholder involvement, and continuous tracking mechanisms, are deeply embedded within the organization's project management framework. This aligns with the broader observations in literature, where similar practices have been noted as essential components of effective risk management across various sectors. For instance, studies by Fikadu and Kant (2023) and Antoine and Sikubwabo (2024) emphasize the role of systematic monitoring and early warning systems in maintaining project stability. Although many of the referenced studies focus on construction or infrastructure projects in different geographical contexts, the underlying principles of structured risk oversight and stakeholder engagement remain consistent. These parallels suggest that while the sector and context may differ, Ekaterra's adoption of comprehensive risk monitoring and control practices reflects a mature and informed approach to risk management, in line with globally recognized standards highlighted in existing literature

4.4.5 Project Performance

The evaluation of the performance of agricultural projects involved participants rating their agreement with a series of statements. Agreement levels were measured on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree). Descriptive statistics of the responses are provided in Table 4.6.

Table 4.6: Descriptive Statistics for Project Performance

Statement	<i>N</i>	Large Extent (%)	Very Large Extent (%)	<i>M</i>	<i>SD</i>
The project deliverables meet the specified quality standards	68	42.60	57.40	4.57	0.49
The project is progressing according to the planned schedule	68	47.10	52.90	4.53	0.50
The project is within the allocated budget	68	48.50	51.50	4.51	0.50
Stakeholders are satisfied with the progress and the specified quality standards	68	51.50	48.50	4.49	0.48
The project is delivering a favorable return on investment, either through financial gains, increased efficiency or increased production	68	38.20	61.80	4.38	0.49
Overall Project Performance Score	68			4.50	0.25

Source: Researcher (2025)

The evaluation of project performance in these agricultural projects, as detailed in Table 4.6, indicates that overall, projects are performing at a high level, as evidenced by an overall mean score of 4.50 ($SD = 0.25$). A key finding is that project deliverables are highly regarded, with 42.60% of respondents rating them to a large extent and 57.40% to a very large extent, resulting in a mean of 4.57 ($SD = 0.49$). This suggests that the quality of the outputs consistently meets or exceeds established standards. Such a high level of quality is critical for maintaining stakeholder confidence and ensuring regulatory compliance.

In addition, the projects are progressing well according to the planned schedule, with 47.10% of respondents indicating a large extent and 52.90% a very large extent of agreement, corresponding to a mean of 4.53 ($SD = 0.50$). These findings imply that project timelines are closely adhered to, reflecting effective planning and execution. Timely progress is essential in mitigating delays and ensuring that the projects remain

on track for successful completion. This adherence to schedule further reinforces the overall strength of project management practices within these initiatives.

Financial management is also a strong area for these projects, as indicated by a mean score of 4.51 ($SD = 0.50$) for staying within the allocated budget. Nearly half of the respondents (48.50%) reported that budget adherence is implemented to a large extent, with the remaining 51.50% indicating a very large extent. This balanced distribution highlights the projects' ability to manage resources effectively and mitigate cost overruns. Efficient budget management contributes not only to the smooth operation of projects but also to maintaining a favorable return on investment.

Finally, stakeholder satisfaction appears to be high, with 51.50% of respondents rating satisfaction with progress and quality to a large extent and 48.50% to a very large extent ($M = 4.49$, $SD = 0.48$). Additionally, the project's return on investment—whether through financial gains, increased efficiency, or enhanced production—also received strong support, with a mean of 4.38 ($SD = 0.49$) and 61.80% of respondents indicating a very large extent. These results suggest that stakeholders are generally pleased with the project outcomes and the overall benefits derived from the projects. In general, the high-performance ratings across quality, schedule adherence, budget management, and stakeholder satisfaction collectively point to a well-executed project management process that effectively delivers favorable results.

The evaluation of project performance in Ekaterra Tea Kenya PLC's agricultural projects reveals a high level of success, with projects consistently meeting or exceeding established standards (Aldaiyat, 2021; Alsaadi & Norhayatizakuan, 2021; Elokby et al., 2021). The quality of project deliverables is highly regarded, and projects are progressing well according to planned schedules. Financial management is also a strong area, with projects staying within allocated budgets and managing resources effectively (Aikpokhio

et al., 2023; Juma & Kamaara, 2024). Additionally, stakeholder satisfaction is high, with stakeholders pleased with the project outcomes and the overall benefits derived from the projects (Otieno & Mutiso, 2021; Omondi & Chege, 2023). Overall, the findings suggest that Ekaterra Tea Kenya PLC has a well-executed project management process that effectively delivers favorable results, with a strong focus on quality, timeliness, budget management, and stakeholder satisfaction.

4.5 Diagnostic Tests

Multiple linear regression was employed to examine the relationships under consideration. Prior to interpreting the regression analyses, it was necessary to assess the fundamental assumptions of this method. Diagnostic tests were conducted to evaluate the data for adherence to conditions of linearity, normality of residuals, homoscedasticity, absence of autocorrelation, and absence of multicollinearity. These assessments were essential to determine the appropriateness of the regression models for interpreting the associations between the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—and the outcome variable, project performance. The findings from these diagnostic evaluations are presented in this section.

4.5.1 Linearity

Linearity, in the context of regression analysis, is the assumption that the relationship between the predictor and outcome variables can be adequately represented by a linear function (Hair et al., 2022). This assumption was evaluated through the examination of scatterplots. Specifically, Figure 4.6 presents a scatterplot matrix illustrating the relationships between the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—and the outcome variable, project performance.

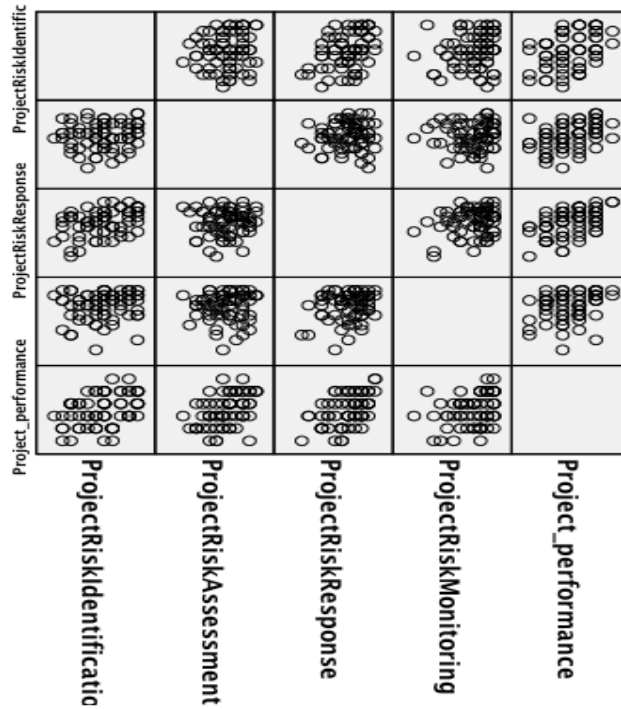


Figure 4.6: Scatterplot Matrix Depicting Linear Associations among Study Variables

Source: Researcher (2025)

Upon examination of the scatterplots in Figure 4.6, specifically in the final row where project performance is represented on the y-axis, it is observed that the data points predominantly display an upward trajectory from left to right in each plot. This pattern suggests a positive association between higher levels of project risk identification, risk assessment, risk response planning, and risk monitoring and control, and enhanced performance of the agricultural projects at Ekattera Tea Kenya PLC. This consistent upward trend indicates a positive linear relationship between the project risk management practices and the performance outcome. The presence of this linear association supports the conclusion that the linearity assumption was satisfied.

4.5.2 Normality of Residuals

The assumption of normality of residuals stipulates that the residuals of a given regression model are distributed normally or follow a bell-shaped curve (Field, 2022). In

this study, the normality of residuals was evaluated for the multiple linear regression model, which examines the relationships between the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—and the outcome variable, project performance. The assessment of normality involved examining the distribution of residuals graphically using a normal probability-probability (P-P) plot. Figure 4.7 presents the normal P-P plot for the multiple linear regression model incorporating all predictor variables.

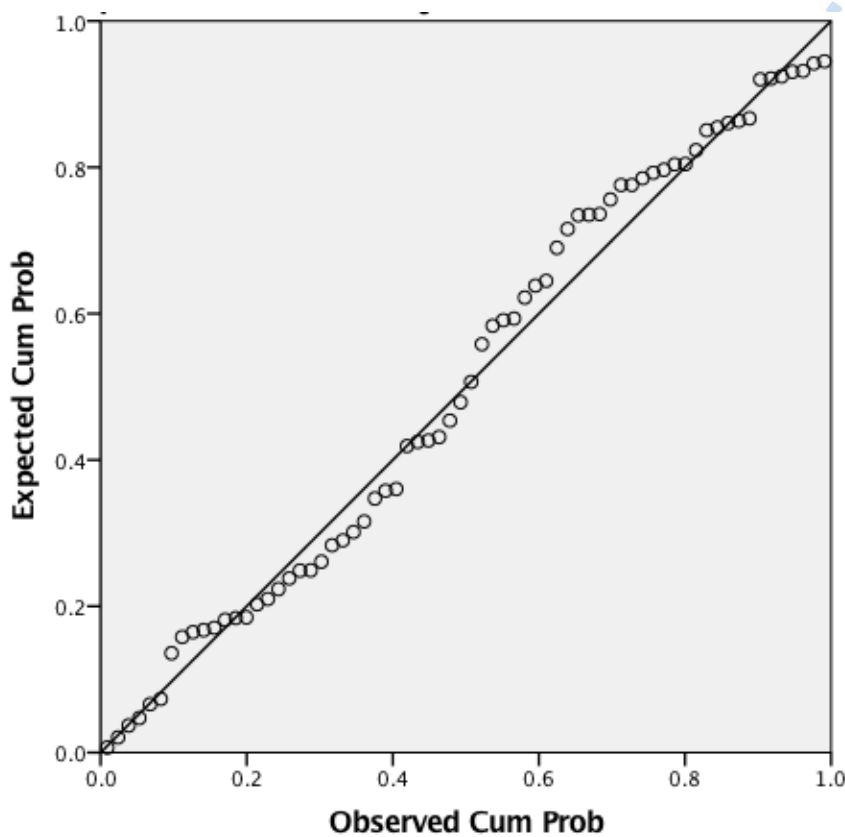


Figure 4.7: Normal P-P Plot: Project Performance vs. Predictor Variables

Source: Researcher (2025)

Figure 4.7 demonstrates that the residuals exhibit a close alignment with the expected normal distribution line. This alignment suggests that the residuals are approximately normally distributed, thus satisfying the necessary condition for valid multiple linear regression analysis. The absence of any systematic deviations from the diagonal indicates

that the regression estimates are robust and appropriate for the model incorporating project risk identification, risk assessment, risk response planning, and risk monitoring and control as predictor variables.

4.5.3 Homoscedasticity

Homoscedasticity, in the context of regression analysis, is the assumption that the variance of residuals is constant across all levels of the predictor variables (Keith, 2023). In this study, homoscedasticity was evaluated graphically for the multiple linear regression model, which examines the relationships between the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—and the performance of agricultural projects at Ekaterra Tea Kenya PLC. Specifically, a scatterplot of residuals against fitted values was employed to assess this assumption. The plot analyzed the residuals against the fitted values for the multiple linear regression model incorporating all predictor variables, as depicted in Figure 4.8.

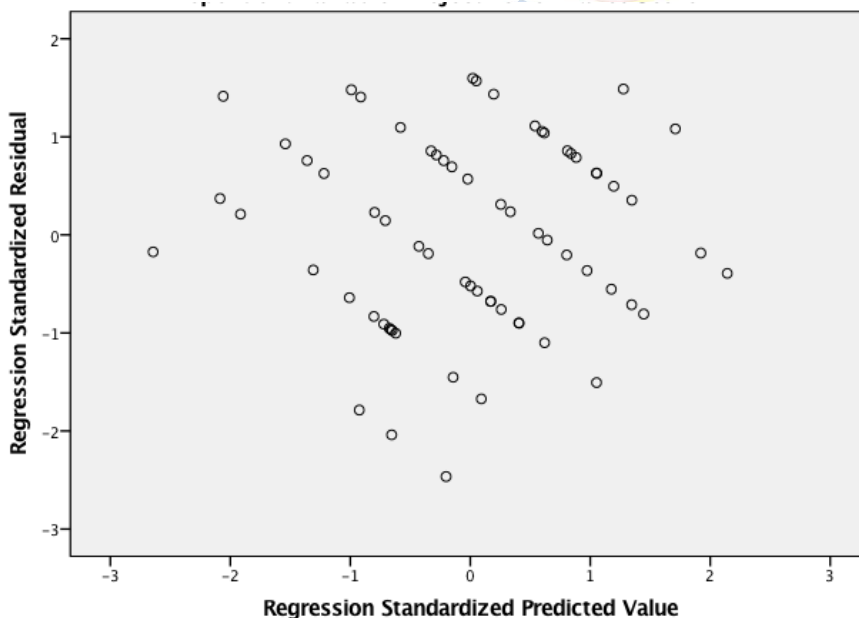


Figure 4.8: Residuals Plot for the Multiple Linear Regression Model

Source: Researcher (2025)

As illustrated in Figure 4.9, a random dispersion of residuals around the zero line was observed, with no discernible pattern, suggesting a consistent variance of residuals across the range of fitted values. This indicates that the homoscedasticity condition was satisfied for the multiple linear regression model. The absence of funnel-shaped patterns or systematic trends in the plot supports the conclusion that the multiple linear regression model was appropriate for this dataset.

4.5.3 Autocorrelation

Autocorrelation, in the context of regression analysis, refers to the assumption that the residuals of the model are not correlated with each other (Tabachnick & Fidell, 2021). To assess the presence of autocorrelation in the multiple linear regression model, the Durbin-Watson test was employed. This test evaluates whether the residuals exhibit serial correlation, with values ranging from 0 to 4. A Durbin-Watson statistic close to 2 indicates no autocorrelation, while values approaching 0 suggest positive autocorrelation, and values approaching 4 suggest negative autocorrelation. The results of the Durbin-Watson test are presented in Table 4.7.

Table 4.7: Durbin-Watson Test for Autocorrelation

<i>n</i>	<i>k</i>	Durbin-Watson
68	4	2.169

The Durbin-Watson statistics for the multiple linear regression model was 2.169, as shown in Table 4.1. To interpret this value, it is compared against critical values from the Durbin-Watson table, which depend on the number of predictors ($k = 4$), the sample size ($n = 68$), and the desired significance level (typically $\alpha = .05$). For $k = 4$ and $n = 68$, the lower critical value (dL) is approximately 1.47, and the upper critical value (dU) is approximately 1.67. In this case, the Durbin-Watson statistic of 2.169 falls between dU (1.67) and $4 - dU$ (approximately 2.33), indicating no evidence of autocorrelation in the

residuals. This result suggests that the residuals are independent, satisfying the assumption of no autocorrelation required for valid multiple linear regression analysis. Therefore, the regression model is appropriate for further interpretation of the relationships between the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—and the outcome variable, project performance.

4.5.5 Multicollinearity

Multicollinearity refers to a situation in regression analysis where predictor variables are highly correlated with each other, which can affect the stability and interpretability of the regression coefficients (Field, 2022). To assess the presence of multicollinearity among the predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—the Variance Inflation Factor (VIF) was calculated for each predictor as shown in Table 4.8.

Table 4.8: Variance Inflation Factors (VIF) for Predictor Variables

Predictor Variable	VIF
Project risk identification	1.45
Project risk assessment	1.53
Project risk response planning	1.67
Project risk monitoring and control	1.49

The results in Table 4.5 indicate that all predictor variables have VIF values well below the critical threshold of 10. Generally, a VIF value greater than 10 is considered indicative of significant multicollinearity, warranting further investigation or corrective measures. This suggests that multicollinearity was not a significant issue in the model. The predictor variables were sufficiently independent, and the regression coefficients could be reliably estimated without concerns of inflated standard errors or instability due to collinearity. Therefore, the model's estimates and interpretations were considered robust and valid within the context of multicollinearity.

4.6 Multiple Linear Regression Analysis Results

The research aimed to examine how various project risk management practices influence the performance of agricultural projects at Ekaterra Tea Kenya PLC. To analyze these relationships, a multiple linear regression model was employed, which included four predictor variables: project risk identification, risk assessment, risk response planning, and risk monitoring and control. The null hypotheses for each predictor stated that these practices have no significant effect on project performance, while the alternative hypotheses posited that they do have a significant effect. The findings, summarized in Table 4.7, offer insights into the connections between these factors.

Table 4.9: Multiple Linear Regression Results: Project Performance on Project Risk Management Practices

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.695	.484	.187	2.169	
ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.070	4	0.517	14.751	<.001
Residual	2.210	63	0.035		
Total	4.279	67			
Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.300	0.294		7.795	.000
Project risk identification	0.063	0.045	0.140	1.406	.002
Project risk assessment	0.194	0.044	0.402	4.399	<.001
Project risk response planning	0.198	0.049	0.397	4.041	<.001
Project risk monitoring and control	0.075	0.041	0.169	1.811	.007

Source: Researcher (2025)

Table 4.7 illustrates that $R^2 = 0.484$, which means that the combined project risk management practices—project risk identification, risk assessment, risk response planning, and risk monitoring and control—accounted for 48.4% of the variation in project performance. The adjusted R^2 of 0.451 indicates that, after accounting for the number of predictors, the model explained 45.1% of the variance in the outcome variable. The ANOVA results, with $(4, 63) = 14.751$ and $p < .001$, confirm that the regression model was statistically significant in predicting the impact of project risk management practices on project performance.

The regression coefficients for each predictor variable were examined to test the individual hypotheses. For project risk identification, the regression coefficient was significant ($b = 0.063$, $t(63) = 1.406$, $p = .002$), revealing a positive relationship between the predictor and the outcome variable. Specifically, a one-unit increase in project risk identification practices corresponds to a 0.063-unit increase in project performance, holding all other predictors constant. These results provide sufficient evidence to reject the null hypothesis, which stated that project risk identification practices have no significant influence on the performance of agricultural projects at Ekaterra Tea Kenya PLC.

For project risk assessment, the regression coefficient was also significant ($b = 0.194$, $t(63) = 4.399$, $p < .001$), indicating a positive relationship with project performance. A one-unit increase in project risk assessment practices corresponds to a 0.194-unit increase in project performance, holding all other predictors constant. This finding provides sufficient evidence to reject the null hypothesis, which stated that project risk assessment practices have no significant influence on the performance of agricultural projects at Ekaterra Tea Kenya PLC.

Similarly, the regression coefficient for project risk response planning was significant ($b = 0.198$, $t(63) = 4.041$, $p < .001$), demonstrating a positive relationship with project performance. A one-unit increase in project risk response planning practices corresponds to a 0.198-unit increase in project performance, holding all other predictors constant. These results provide sufficient evidence to reject the null hypothesis, which stated that project risk response planning practices have no significant influence on the performance of agricultural projects at Ekaterra Tea Kenya PLC.

Finally, the regression coefficient for project risk monitoring and control was significant ($b = 0.075$, $t(63) = 1.811$, $p = .007$), indicating a positive relationship with project performance. A one-unit increase in project risk monitoring and control practices corresponds to a 0.075-unit increase in project performance, holding all other predictors constant. This finding provides sufficient evidence to reject the null hypothesis, which stated that project risk monitoring and control practices have no significant influence on the performance of agricultural projects at Ekaterra Tea Kenya PLC.

In summary, the multiple linear regression analysis revealed that all four predictor variables—project risk identification, risk assessment, risk response planning, and risk monitoring and control—have a statistically significant positive effect on project performance. Consequently, all four null hypotheses were rejected, supporting the conclusion that effective project risk management practices contribute to improved performance of agricultural projects at Ekaterra Tea Kenya PLC.

The results align with several recent studies that affirm the positive influence of risk identification on project performance. For instance, research by Algremazy et al. (2023) and Otieno and Mutiso (2021) demonstrated that early and systematic identification of potential risks significantly contributes to project success. This consistency reinforces theoretical expectations drawn from the Resource-Based

View and Contingency Theory, which argues that identifying threats early allows organizations to allocate resources efficiently and adapt strategies to dynamic conditions. Although many studies have focused on sectors such as construction, the relationship observed in this study supports the broader consensus that proactive risk identification is a critical success factor across industries. Within the agricultural context of Ekaterra Tea Kenya PLC, where projects face unique risks such as climate variability and market fluctuations, early identification appears to be equally vital, affirming its role as a cornerstone of effective risk management.

The evaluation of risk assessment practices similarly revealed a clear positive impact on project performance, a finding that is supported by recent empirical studies. For example, Aikpokhio et al. (2023) and Murungi and Omwenga (2022) found that in-depth risk assessment practices—particularly those involving the evaluation of risk probability and impact—enable more informed decision-making and more effective mitigation strategies. These studies confirm that understanding the severity and likelihood of risks is essential in preventing or reducing negative project outcomes. While the context of these studies varies, their findings resonate with the agricultural setting of Ekaterra, where risks are often external and unpredictable. This further supports the relevance of Contingency Theory, which suggests that organizations must tailor their risk management approaches to specific environmental and operational conditions.

When considering risk response planning, the findings from Ekaterra's agricultural projects also show a strong positive influence on project performance. This is in line with recent studies such as those by Fikadu and Kant (2023), Obondi (2022), and Kallow et al. (2022), which demonstrated that well-formulated and context-specific response strategies significantly enhance a project's ability to remain resilient in the face of uncertainty. In agricultural contexts, where risks such as pest outbreaks or supply chain

disruptions can escalate rapidly, the ability to respond swiftly and effectively is especially critical. These findings also reflect the relevance of Stakeholder Theory, as risk response planning often benefits from collaborative input and the alignment of strategies with stakeholder expectations and shared responsibilities.

Finally, the investigation into risk monitoring and control practices reinforces their positive contribution to project performance. This is consistent with findings by Fikadu and Kant (2023), Kallow et al. (2022), and Obondi (2022), all of whom found that ongoing risk monitoring and timely control interventions are essential to sustaining project success. Despite being conducted in diverse sectors, including construction and health systems, these studies consistently highlight the universal value of continuous oversight and adaptive risk responses. In the case of Ekaterra Tea Kenya PLC, these practices enable project teams to detect deviations early, make data-driven decisions, and implement corrective actions efficiently. The alignment of these findings with the Resource-Based View underscores the value of internal capabilities—such as monitoring systems and skilled personnel, in ensuring that agricultural projects remain on course despite a volatile risk environment.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter begins with a summary of the study's key findings. Next, the conclusions drawn from the findings are then highlighted, providing a clear understanding of the study's implications. Finally, the chapter concludes by offering practical recommendations to practitioners, policymakers and future researchers.

5.2 Summary of Key Findings

The following section summarized the key findings of the study, which examined the influence of project risk management practices on agricultural project performance at Ekaterra Tea Kenya PLC. The analysis focused on four areas: risk identification, risk assessment, risk response planning, and risk monitoring and control. Each objective was evaluated in terms of its contribution to overall project outcomes. The results demonstrated that effective implementation of these practices was significantly associated with improved project performance.

5.2.1 Influence of Project Risk Identification Practices on Project Performance

The study found that project teams at Ekaterra Tea Kenya PLC implemented risk identification practices consistently across agricultural projects. The teams used expert judgment to anticipate potential challenges, with over 90% of respondents reporting that expert judgment was applied to a large or very large extent ($M = 4.29$, $SD = 0.62$). Risk registers were maintained throughout the project lifecycle, as confirmed by 82.3% of respondents, who indicated that they were used extensively. Historical data and collaborative brainstorming sessions were also employed, enhancing the comprehensiveness of the risk identification process. These practices provided a

structured framework for identifying risks early, thereby laying the foundation for effective project management.

Furthermore, the analysis revealed that strong risk identification practices were positively associated with improved project performance. Within the multiple linear regression model, project risk identification practices were found to have a statistically significant positive effect on project performance ($b = 0.063$, $t(63) = 1.406$, $p = .002$). The proactive approach adopted by the teams enabled them to detect risks promptly and develop appropriate mitigation measures. Detailed documentation and the systematic application of expert insights enhanced the reliability of the risk detection process. Overall, the findings supported the conclusion that early and thorough risk identification contributed to more informed decision-making and successful project outcomes.

5.2.2 Influence of Project Risk Assessment Practices on Project Performance

The study revealed that project risk assessment practices were carried out in a systematic and structured manner. Managers evaluated risks by considering both the probability of occurrence and the potential impact on project objectives. 86.7% of respondents reported that probability and impact assessments were systematically conducted ($M = 4.19$, $SD = 0.70$). They employed scoring systems, specialized tools, and expert inputs to prioritize risks effectively, with risk scoring and prioritization widely adopted ($M = 4.15$, $SD = 0.68$). This comprehensive evaluation ensured that all significant risks were clearly identified and addressed before they could escalate.

The findings also indicated that a robust risk assessment framework was linked to enhanced project performance. Project risk assessment practices were found to have a statistically significant positive effect on project performance ($b = 0.194$, $t(63) = 4.399$, $p < .001$). The systematic evaluation process allowed managers to make timely and informed decisions regarding risk mitigation and resource allocation. Regular assessment

practices helped in refining risk priorities based on emerging data and lessons learned. Consequently, the well-established risk assessment practices played a vital role in safeguarding project objectives and ensuring successful project execution.

5.2.3 Influence of Project Risk Response Planning Practices on Project Performance

The study demonstrated that project risk response planning was well implemented within the agricultural projects at Ekaterra Tea Kenya PLC. Project teams developed clear and actionable risk response plans that included selecting appropriate mitigation strategies and preparing contingency measures. Half of the respondents indicated that appropriate risk mitigation strategies were implemented to a large extent, while 36.8% reported implementation to a very large extent ($M = 4.24$, $SD = 0.67$). Stakeholder engagement was integrated into the planning process, ensuring that diverse perspectives contributed to the formulation of effective responses, as confirmed by 85.3% of respondents ($M = 4.17$, $SD = 0.75$). Detailed action plans were developed to guide the implementation of risk mitigation strategies throughout the project lifecycle.

Moreover, the analysis showed that effective risk response planning was significantly associated with improved project performance. Project risk response planning practices were found to have a statistically significant positive effect on project performance ($b = 0.198$, $t(63) = 4.041$, $p < .001$). The systematic planning approach enabled project teams to address identified risks promptly and efficiently. The proactive development of contingency plans and the careful allocation of resources supported the overall stability of the projects. These results highlighted the importance of having a well-structured risk response strategy in achieving favorable project outcomes.

5.2.4 Influence of Project Risk Monitoring and Control on Project Performance

The study found that project risk monitoring and control practices were rigorously applied in the agricultural projects. Regular risk audits were conducted to evaluate the effectiveness of the risk management processes, with 64.7% of respondents confirming that risk audits were conducted to a large or very large extent ($M = 4.43$, $SD = 0.76$). Adherence to compliance standards was strictly maintained ($M = 4.41$, $SD = 0.68$), and key risk indicators were systematically used to provide early warnings of potential issues, facilitating timely intervention ($M = 4.38$, $SD = 0.75$). Stakeholder involvement in the monitoring process further enhanced transparency and accountability in managing risks. Furthermore, the analysis indicated that robust monitoring and control practices were positively linked to improved project performance. Regression analysis showed that these practices had a statistically significant positive effect on project performance ($b = 0.075$, $t(63) = 1.811$, $p = .007$). Continuous tracking and regular reporting allowed managers to detect deviations early and implement corrective measures swiftly. The proactive approach to monitoring ensured that any emerging risks were managed before they could negatively impact project outcomes. Overall, the comprehensive risk monitoring and control framework contributed significantly to sustaining project integrity and achieving successful performance.

5.3 Conclusions

In light of the findings for Ekaterra Tea Kenya PLC, where structured risk identification practices were consistently applied to anticipate and address potential challenges, it can be deduced that the systematic identification of risks at the outset is a critical driver of successful project outcomes for agricultural projects in general. The proactive approach to risk detection, as demonstrated by Ekaterra, ensures that potential challenges, such as

environmental uncertainties, supply chain disruptions, or labor shortages, are anticipated and addressed early, thereby reducing the likelihood of disruptions during project execution. This approach fosters a culture of preparedness across agricultural projects, enabling project teams to make informed decisions and allocate resources effectively to meet project goals. Ultimately, the emphasis on early risk detection, as exemplified by Ekaterra, establishes a solid foundation for achieving objectives and enhancing overall performance in agricultural initiatives.

Based on the findings for Ekaterra Tea Kenya PLC, where a systematic risk assessment process was employed to prioritize risks based on their likelihood and impact, it can be deduced that a robust and systematic risk assessment process is essential for optimizing project performance in agricultural projects in general. The structured evaluation of risks, as practiced by Ekaterra, empowers project managers to focus on the most critical threats, such as pest outbreaks, market volatility, or climate variability, thereby enhancing decision-making efficiency. This systematic approach not only mitigates potential negative outcomes but also supports the strategic allocation of resources to areas of greatest need, ensuring alignment with the operational and sustainability goals of agricultural initiatives. Consequently, a well-executed risk assessment framework, as evidenced by Ekaterra, serves as a cornerstone for achieving project stability and success across agricultural projects.

Given the findings for Ekaterra Tea Kenya PLC, where clear and actionable risk response plans were developed to address identified risks, it can be deduced that effective risk response planning is indispensable for ensuring the resilience and success of agricultural projects in general. The development of strategies to address risks, as implemented by Ekaterra, enables project teams to respond swiftly and efficiently to challenges, such as fluctuating commodity prices, regulatory changes, or natural disasters, minimizing their

impact on project objectives. By integrating stakeholder perspectives and preparing contingency measures, this planning process enhances adaptability and fosters confidence in the ability of agricultural projects to navigate uncertainties. Ultimately, a well-implemented risk response strategy, as demonstrated by Ekaterra, is a key determinant of sustained project performance and stability in the agricultural sector.

From the findings, where rigorous monitoring and control practices were applied to evaluate and manage risks throughout the project lifecycle, it can be deduced that continuous and rigorous monitoring of risks is vital for maintaining the integrity and success of agricultural projects in general. The ongoing evaluation of risk management processes, as practiced by Ekaterra, ensures that emerging threats, such as soil degradation, supply chain delays, or shifts in weather patterns, are identified and addressed promptly, preventing minor issues from escalating into significant challenges. This proactive oversight, supported by adherence to compliance standards and stakeholder engagement, promotes transparency and accountability, which are essential for sustaining project momentum and meeting agricultural objectives. Therefore, a strong monitoring and control framework, as exemplified by Ekaterra, is crucial for achieving consistent project performance and long-term success in agricultural initiatives.

5.4 Recommendations of the Study

Policymakers should develop standardized guidelines mandating the use of structured risk identification tools, such as risk registers, to ensure consistent risk detection across agricultural projects. Policymakers should fund training programs to build capacity among project teams, focusing on techniques like expert judgment and brainstorming to enhance risk identification skills. Service users/beneficiaries, such as farmers, should participate in risk identification workshops to provide local knowledge, ensuring that identified risks are relevant and comprehensive. Service users/beneficiaries, such as

agricultural cooperatives, should maintain community-level risk logs to document recurring challenges, aiding project teams in early risk detection. Stakeholders, such as project managers, should adopt data analytics platforms to integrate historical data and predictive models, improving the efficiency of risk identification. Stakeholders, such as agricultural organizations, should establish knowledge-sharing networks to disseminate the best practices in risk identification across agricultural projects.

Policymakers should establish regulatory frameworks requiring the systematic evaluation of risks based on probability and impact, ensuring prioritization of critical threats in agricultural projects. Policymakers should promote the adoption of standardized risk scoring systems through subsidies for training and tools, ensuring consistent assessments across projects. Service users/beneficiaries, such as rural farmers, should be educated on risk assessment principles to understand and contribute to the prioritization of risks affecting their livelihoods. Service users/beneficiaries, such as community groups, should provide feedback on potential risk impacts during assessment workshops, ensuring assessments reflect local realities. Project managers should invest in risk assessment software to automate and enhance the accuracy of risk prioritization in agricultural projects. Funding agencies should allocate resources to hire risk assessment consultants, ensuring expert input in evaluating complex agricultural risks.

Policymakers should create policies incentivizing the development of actionable risk response plans, including contingency measures, for agricultural projects through funding support. Policymakers should mandate stakeholder consultation in risk response planning, ensuring diverse perspectives are incorporated into agricultural project strategies. Agricultural producers should participate in planning sessions to ensure response strategies are practical and aligned with their operational needs. Service users/beneficiaries, such as cooperatives, should contribute to contingency plan

development by identifying local resources that can be mobilized during risk events. Other stakeholders, such as project managers, should establish collaborative platforms to share best practices and lessons learned in risk response planning across agricultural projects. Agricultural organizations should invest in simulation tools to test and refine risk response strategies, enhancing preparation for agricultural challenges

Policymakers should implement regulations requiring regular risk audits in agricultural projects, ensuring early detection of emerging threats through standardized procedures.

Policymakers should mandate the use of key risk indicators and transparent reporting mechanisms, enhancing accountability and compliance in agricultural initiatives.

Farmers should be trained to recognize and report early warning signs of risks, ensuring timely feedback to project monitoring teams. Community organizations should participate in risk review meetings to validate the effectiveness of control measures in agricultural projects. Other stakeholders, such as project managers, should invest in real-time monitoring technologies, such as remote sensing, to facilitate continuous tracking of agricultural risks. Funding agencies should support the development of data dashboards to visualize risk trends, enabling timely interventions in agricultural projects.

5.5 Areas for Further Research

Future studies could explore the long-term impact of project risk management (PRM) practices on agricultural project sustainability. While this study focused on the immediate influence of risk identification, assessment, response planning, and monitoring on project performance, further research could examine how these practices contribute to resilience and long-term success. A longitudinal study tracking agricultural projects over several years would provide valuable insights into whether consistent

application of PRM practices leads to sustained improvements in productivity, financial stability, and risk adaptability.

Further research could also explore the influence of PRM practices in different contexts beyond the agricultural sector. This study focused on Ekaterra Tea Kenya PLC, but risk management is a critical aspect of projects in other industries such as construction, healthcare, and manufacturing. Examining how PRM practices function in these sectors would provide comparative insights and help identify industry-specific challenges and best practices. Additionally, studies could investigate the adoption of PRM in small-scale agricultural enterprises to determine whether similar strategies are effective in less structured project environments.

Another important area for further research is the role of mediating and moderating factors in the relationship between PRM practices and project performance. Variables such as organizational culture, leadership style, employee competence, and technological adoption could significantly influence how risk management practices impact project outcomes. Future studies could use mediation and moderation models to analyze whether these factors strengthen or weaken the effectiveness of PRM practices. Understanding these dynamics would provide more nuanced recommendations for organizations looking to enhance their risk management frameworks.

LIST OF REFERENCES

- Aikpokhio, B. N., Gambo, N., Ogedengbe, F. A., & Nwoye, M. I. (2024). Risk management practices and performance of construction projects: evidence from selected estate management companies in FCT Abuja. *European Journal of Logistics, Purchasing and Supply Chain Management*, 12(1), 1-19.
- Aldaiyat, R. (2021). effect of risk analysis on performance of construction projects in Kuwait. *Stavebníobzor-Civil Engineering Journal*, 30(3), 1-15.
- Alleman, G., & Quigley, J. (2024). *Risk management*. Taylor & Francis Group.
- Algremazy, N. A., Ideris, Z., Alferjany, M. A., & Akram, A. (2023). The effect of risk management practices on project performance: A case study of the Libyan construction industry. *International Journal of Professional Business Review*, 8(6), e01420-e01420.
- Alsaadi, N., & Norhayatizakuan, N. (2021). The impact of risk management practices on the performance of construction projects. *Studies of Applied Economics*, 39(4), 1-15.
- Antoine, M., & Sikubwabo, C. (2024). Effect of risk management practices on project success: a case of project of intensification of the beans which are rich in vitamin B, in Gakenke District, Rwanda. *Journal of Entrepreneurship & Project Management*, 8(4), 128-139.
- Babbie, E. (2022). *The basics of social research* (8th ed.). Cengage Learning.
- Barney, J. B., Ketchen Jr, D. J., & Wright, M. (2021). Resource-based theory and the value creation framework. *Journal of Management*, 47(7), 1936-1955.
- Benami, E., Jin, Z., Carter, M. R., Ghosh, A., Hijmans, R. J., Hobbs, A., ... & Lobell, D. B. (2021). Uniting remote sensing, crop modelling and economics for agricultural risk management. *Nature Reviews Earth & Environment*, 2(2), 140-159.

- Bridoux, F., & Stoelhorst, J. W. (2022). Stakeholder theory, strategy, and organization: Past, present, and future. *Strategic Organization*, 20(4), 797-809.
- Carroll, B., Taylor, S., & Ford, J. (2022). *Leadership: Contemporary critical perspectives*. Sage.
- Chepkoech, R., Keitany, P., & Bett, A. (2023). Ecological design practice and sustainable performance of multinational tea firms in Kenya. *East African Journal of Business and Economics*, 6(1), 442-455.
- County Government of Kericho (2024). *About us*. https://kericho.go.ke/fix/?-page_id=1148
- Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Dmytriiev, S. D., Freeman, R. E., & Hörisch, J. (2021). The relationship between stakeholder theory and corporate social responsibility: Differences, similarities, and implications for social issues in management. *Journal of Management Studies*, 58(6), 1441-1470.
- Edwards, P., Serra, P., & Edwards, M. (2024). *Managing project risks*. Wiley.
- Elokby, E. A., Alawi, N. A., Abdelgayed, A. T. A., & Al-hodiany, Z. M. (2021, June). Does project risk management matter for the success of information technology projects in Egypt. In *2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE)* (pp. 243-250). IEEE.
- European Commission (2021). *Common agricultural policy funds*. Retrieved from https://agriculture.ec.europa.eu/common-agricultural-policy/financing-cap/cap-funds_en

- Ferreira, N. C., & Ferreira, J. J. (2025). The field of resource-based view research: mapping past, present and future trends. *Management Decision*, 63(4), 1124-1153.
- Field, A. (2022). *Discovering statistics using IBM SPSS statistics* (6th ed.). SAGE Publications
- Fikadu, G., & Kant, S. (2023). Effects of project risk management practices on project performance: In case of selected projects in Ethiopia. *International Journal of Multidisciplinary Educational Research*, 12 (1), 26-32.
- Food and Agriculture Organization (2021). *Plant production and protection*. Retrieved from <https://www.fao.org/plant-production-protection/about/en>
- Freeman, R. E. (2023). Understanding stakeholder capitalism. In R. Edward Freeman's *Selected Works on Stakeholder Theory and Business Ethics* (pp. 691-695). Springer International Publishing.
- Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management*, 47(7), 1757-1770.
- Fukumori, K., Arai, A., & Matsumoto, T. (2022). Risk management for smallholder farmers: An empirical study on the adoption of weather-index crop insurance in rural Kenya. *JICA Ogata Sadako Research Institute for Peace and Development Working Paper*, (230), 1-35.
- Gathigia, L. G., & Wairimu, A. M. (2023). Risk management practices and performance of infrastructural projects in Nakuru County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 7(1), 1-15.
- Gerhart, B., & Feng, J. (2021). The resource-based view of the firm, human resources, and human capital: Progress and prospects. *Journal of Management*, 47(7), 1796-1819.

- Government of India (2021). *Pradhan Mantri Fasal Bima Yojana-crop insurance*.
<https://pmfby.gov.in/>
- Government of Kenya (2023). *Agricultural Sector Development Support Programme (ASDSP)*. Retrieved from <https://asdsp.kilimo.go.ke/>
- Greve, H. R. (2021). The resource-based view and learning theory: Overlaps, differences, and a shared future. *Journal of Management*, 47(7), 1720-1733.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hallstein, E., & Iseman, T. (2021). *Nature-based solutions in agriculture: Project design for securing investment*. FAO.
- Haveman, H. A. (2022). *The power of organizations: A new approach to organizational theory*. Princeton University Press.
- Igihozo, L., & Irechukwu, E. N. (2022). Project risk management process and performance of Mpazi channel construction project in Nyabugogo, Kigali-Rwanda. *Journal of Strategic Management*, 6(2), 31-44.
- Innocent, S., & Dushimimana, D. (2023). Effect of risk management practices on project performance: A case of Twiceceka Project/WFWI- in Huye District, Rwanda, 7(12), 93-103.
- Intergovernmental Panel on Climate Change (2021). *Food security*. Retrieved from https://www.ipcc.ch/site/assets/uploads/sites/4/2022/11/SRCCL_Chapter_5.pdf
- Juma, I. A., & Kamaara, M. (2024). Project risk management practices and performance of affordable housing projects in Nairobi City County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 8(1), 1-15.

- Kabutiei, G. J., Nyang'au, P. S., & Muchelule, W. (2022). the relationship between risk identification and the performance of National Irrigation Authority projects in Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 6(2), 1-15.
- Kallow, M. A., Bodla, A. A., Ejaz, A., & Ishaq, M. R. (2023). How do risk management practices lead to project success in the construction industry? The mediated moderation of risk coping capacity and risk transparency. *International Journal of Construction Management*, 23(16), 2779-2787.
- Keith, T. Z. (2023). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling* (3rd ed.). Routledge.
- Khan, N., Ray, R. L., Sargani, G. R., Ihtisham, M., Khayyam, M., & Ismail, S. (2021). Current progress and future prospects of agriculture technology: Gateway to sustainable agriculture. *Sustainability*, 13(9), 4883.
- Kivits, R., Sawang, S., Kivits, R., & Sawang, S. (2021). Stakeholder engagement. *The Dynamism of Stakeholder Engagement: A Case Study of the Aviation Industry*, 9-17.
- Lauer, T., & Lauer, T. (2021). Success factor project management: managing complexity correctly. *Change Management: Fundamentals and Success Factors*, 185-201.
- Lipton (2024). *Lipton teas and infusions: The tea global leader*. <https://www.lipton-teas.com/>
- McGahan, A. M. (2021). Integrating insights from the resource-based view of the firm into the new stakeholder theory. *Journal of Management*, 47(7), 1734-1756.
- Murungi, H., & Omwenga, J. (2022). Effect of risk mitigating strategy on performance of women funded projects in Meru County, Kenya. *International Journal of Interdisciplinary Research and Innovations*, 5(2), 75-79.

- Mutula, P. K. O., & Engairo, P. (2024). Effect of risk identification on project implementation among faith-based construction projects in the diocese of Ngong. *International Journal of Social Science and Humanities Research*, 2(1), 31-39.
- Mutungu, M. S., & Ondara, A. (2021). Risk management practices and project performance at Kenya Airports Authority. *Journal of Entrepreneurship & Project Management*, 5(1), 45-63.
- Nanette, M. D., & Wabala, S. (2025). Effect of risk management practices on project performance: A case of Rwanda Urban Development Project. *Journal of Research Innovation and Implications in Education*, 9(2), 143-151.
- Nge'tich, E. K., & Munene, R. W. (2024). Influence of project risk management practices on road projects in Nakuru County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 4(4), 163-197.
- Nshakira-Rukundo, E., Kamau, J. W., & Baumüller, H. (2021). Determinants of uptake and strategies to improve agricultural insurance in Africa: A review. *Environment and Development Economics*, 26(5-6), 605-631.
- Obondi, K. (2022). The utilization of project risk monitoring and control practices and their relationship with project success in construction projects. *Journal of Project Management*, 7(1), 35-52.
- Omondi, H., & Chege, P. (2023). Influence of risk identification on performance of agricultural projects in Ahero Irrigation Scheme, Kenya. *International Journal of Social Science and Humanities Research*, 11(2), 316-321.
- Otieno, F., & Mutiso, J. (2021). Influence of project risk management on performance of agricultural projects in Nakuru County, Kenya. *International Research Journal of Business and Strategic Management*, 2(2), 1-15.

- Ozdemir, S., de Arroyabe, J. C. F., Sena, V., & Gupta, S. (2023). Stakeholder diversity and collaborative innovation: Integrating the resource-based view with stakeholder theory. *Journal of Business Research*, 164, 113955.
- Pang, A., Jin, Y., & Cameron, G. T. (2023). The Contingency Theory of strategic conflict management: Review from three decades of theory development, extension, and application. *Journalism & Communication Monographs*, 25(2), 193-214.
- Platform for Agricultural Risk Management (2023). *Ethiopia-Platform for agricultural riskmanagement*.https://p4arm.org/app/uploads-/2017/03/ethiopia_policy-brief.pdf
- Ployhart, R. E. (2021). Resources for what? Understanding performance in the resource-based view and strategic human capital resource literature. *Journal of Management*, 47(7), 1771-1786.
- Public Management Institute (2021). *A guide to the project management body of knowledge (PMBOK)*. PMI.
- Sangwa, I., & Dushimimana, J. (2023). Effect of risk management practices on project performance. A case of Twiceceka Project/WFWI-in Huye District, Rwanda. *Journal of Entrepreneurship & Project Management*, 7(12), 93-103.
- Sehgal, N. (2023). *Organizational behaviour: Theory and practice*. Academic Guru Publishing House.
- Shah, J., & Alharthi, M. (2024). Risk sources in agriculture and farmers' behavior in risky prospects: a systematic review. *Management & Sustainability: An Arab Review*, 3(2), 169-196.
- Shamim, M. I. (2022). Exploring the success factors of project management. *American Journal of Economics and Business Management*, 5(7), 64-72.

- Shenkar, O., & Ellis, S. (2022). The rise and fall of structural contingency theory: A theory's 'autopsy'. *Journal of Management Studies*, 59(3), 782-818.
- Stoelhorst, J. W. (2023). Value, rent, and profit: A stakeholder resource-based theory. *Strategic Management Journal*, 44(6), 1488-1513.
- Tabachnick, B. G., & Fidell, L. S. (2021). *Using multivariate statistics* (7th ed.). Pearson Education.
- Turkulainen, V. (2022). Contingency theory and the information processing view. In *Handbook of theories for purchasing, supply chain and management research* (pp. 248-266). Edward Elgar Publishing.
- United States Department of Agriculture (2021). *Risk management agency*. Retrieved from <https://www.usda.gov/sites/default/files/documents/22-08-RMA.pdf>
- Vilani, L., Zanin, A., Lizot, M., Trentin, M. G., Afonso, P., & Lima, J. D. D. (2024). A Framework for investment and risk assessment of agricultural projects. *Journal of Risk and Financial Management*, 17(9), 378.
- Wateworth, A., & Gavin, C. (2024). *Managing projects*. Routledge.
- Wernerfelt, B. (2022). When does the underdog win? *Strategy Science*, 7(1), 1-9.
- World Bank (2024). *Agriculture*. <https://www.worldbank.org/en/research-dime/brief/agriculture#:~:text=Globally%2040%20percent%20of%20the,t o%20meet%20this%20urgent%20goal>.

APPENDICES

Appendix I: Research Questionnaire

I: DEMOGRAPHIC CHARACTERISTICS

1. What is your gender?

Male

Female

2. What is your age group?

18-25 years

26-35 years

36-45 years

46-50 years

Over 50 years

3. What is your highest level of education?

High school

College diploma

Bachelor's degree

Master's degree

Doctorate/Ph.D.

Other (please specify)

4. What is your current role in the agricultural project?

Project manager

Team leader

Finance personnel

Other (please specify)

5. How long have you been working with the company?

Less than 1 year

1-3 years

4-6 years

7-10 years

More than 10 years



II: PROJECT RISK IDENTIFICATION

6. The following statements seek to assess the extent to which project risk identification practices are implemented. Please indicate the extent to which each practice is implemented in the agricultural project, by ticking the appropriate box (1=Not practiced, 2=Small Extent, 3=Moderate Extent 4=Large Extent, 5=Very Large Extent).

Statement	1	2	3	4	5
i). Stakeholder input is routinely sought and actively incorporated into decisions of the project.					
ii). Analysis of historical data is systematically used to identify risks in the project.					
iii). Workshops and brainstorming sessions are regularly conducted to identify risks in the project					
iv). Registers or records of risks are kept helping track risks throughout the lifecycle of the project					
v). Expert judgement is consistently leveraged in identifying risks in the project					

III: PROJECT RISK ASSESSMENT PRACTICES

7. The following statements seek to assess the extent to which project risk assessment practices are implemented. Please indicate the extent to which each practice is implemented in the agricultural project, by ticking the appropriate box (1=Not practiced, 2=Small Extent, 3=Moderate Extent 4=Large Extent, 5=Very Large Extent).

Statement	1	2	3	4	5
i). Probability and impact assessments are systematically conducted to assess potential risks in the project					
ii). Specialized tools and techniques are used to identify and analyzed risks in the project					
iii). Risks are scored and prioritized based on their potential impact and likelihood of occurrences					
iv). Input from experts is sought to validate and refine risk assessments					
v). Risk assessment processes are regularly reviewed and improved based on lessons learned and feedback					

IV: PROJECT RISK RESPONSE PLANNING PRACTICES

8. The following statements seek to assess the extent to which project risk response planning practices are implemented. Please indicate the extent to which each practice is implemented in the agricultural project, by ticking the appropriate box (1=Not practiced, 2=Small Extent, 3=Moderate Extent 4=Large Extent, 5=Very Large Extent).

Statement	1	2	3	4	5
i). Clear plans of action are developed to address identified risks, outlining specific steps to be taken in response.					
ii). Appropriate strategies are carefully chosen to mitigate identified risks.					
iii). Contingency plans are developed to prepare for unexpected risks, outlining alternative courses of action.					
iv). Resources are effectively assigned to implement risk response plans.					
v). Key stakeholders are actively engaged in the development and implementation of risk response plans to ensure alignment with project goals.					

V: PROJECT RISK MONITORING AND CONTROL PRACTICES

9. The following statements seek to assess the extent to which project risk monitoring and control practices are implemented. Please indicate the extent to which each practice is implemented in the agricultural project, by ticking the appropriate box (1=Not practiced, 2=Small Extent, 3=Moderate Extent 4=Large Extent, 5=Very Large Extent).

Statement	1	2	3	4	5
i). Regular tracking and reporting mechanisms are in place to monitor identified risks throughout the project lifecycle					
ii). Key risk indicators are used to provide early warnings of potential risks, allowing for timely mitigation actions.					
iii). Regular risk audits are conducted to assess the effectiveness of risk management processes and controls.					

iv). Stakeholders are actively involved in risk monitoring and control activities, providing input and feedback on risk management processes.					
v). Adherence to compliance standards and governance protocols is enforced to ensure alignment with the project requirements.					

V: PROJECT PERFORMANCE

10. The following statements seek to measure the performance of the project. Please indicate the extent to which you agree with the following statements, by ticking the appropriate box (1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree 5=Strongly Agree).

Statement	1	2	3	4	5
i). The project is within the allocated budget.					
ii). The project is progressing according to the planned schedule.					
iii). The project deliverables meet the specified quality standards.					
iv). Stakeholders are satisfied with the progress and the specified quality standards.					
v). The project is delivering a favorable return on investment, either through financial gains, increased efficiency or increased production.					

Appendix II: ERC Certificate



REF: MKU/ISERC/4587
TO: EDMON NGENO

Date: 15 November 2024

REG: MSCPM/2021/79554

Dear Sir/Madam,

RE: INFLUENCE OF PROJECT RISK MANAGEMENT PRACTICES ON PERFORMANCE OF AGRICULTURAL PROJECTS IN KENYA: CASE OF EKATERRA TEA KENYA PLC

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **3309**. The approval period is **15/11/2024 - 14/11/2025**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC



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Tel: +254 20 287 8000, Cell: +254 709 153 000
Email: info@mku.ac.ke, Web: www.mku.ac.ke

Appendix III: MKU Letter of Introduction



DIRECTORATE OF GRADUATE STUDIES

MSCPM/2021/79554

18th November, 2024

*National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA*

Dear Sir/Madam,


RE: EDMON NGENO - REGISTRATION NO. MSCPM/2021/79554

The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Project Management** in the **Department of Management** in the school of **Business and Economics**.

The title of the research is **"Influence of Project Risk Management Practices on Performance of Agricultural Projects in Kenya: Case of Ekaterra Tea Kenya PLC."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **November, 2024 and January, 2025**.

Any assistance accorded to the student will be highly appreciated.

Thank you.


Dr. Samuel M. Karenga, PhD
Director, Graduate Studies
Enc.


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Email: info@mku.ac.ke, Web: www.mku.ac.ke
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Unlocking Infinite Possibilities

Appendix IV: NACOSTI Research License

REPUBLIC OF KENYA
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

RefNo: 557684

RESEARCH LICENSE




This is to Certify that Mr.. Edmon Ngeno of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kericho on the topic: **INFLUENCE OF PROJECT RISK MANAGEMENT PRACTICES ON PERFORMANCE OF AGRICULTURAL PROJECTS IN KENYA: CASE OF EKATERRA TEA KENYA PLC for the period ending : 10/March/2026.**

License No: NACOSTI/P/25/416508

Applicant Identification Number: 557684

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix V: NACOSTI Research License

Edmon Ngeno
2153-20200
Kipedim@gmail.com
0703429441
11th Dec 2024

To Whom It May Concern,

This letter serves as official authorization for Edmon Ngeno a master's student, to conduct data collection for the research titled "*Influence of Project Risk Management Practices on Performance of Agricultural Projects in Kenya: Case of Ekaterra Tea Kenya PLC.*" The research involves gathering relevant information through surveys, interviews, and document reviews, ensuring strict confidentiality and ethical standards are maintained.

Edmon Ngeno is granted access to the necessary departments and personnel within Ekaterra Tea Kenya PLC to facilitate the successful completion of this academic study. We appreciate the cooperation of all stakeholders in supporting this research.


Sincerely,

Ekaterra Tea Kenya PLC (formerly Unilever Tea Kenya)

Appendix VI: Similarity Index Report

Edmon NGENO

INFLUENCE OF PROJECT RISK MANAGEMENT PRACTICES ON PERFORMANCE OF AGRICULTURAL PROJECTS IN KENYA: CA...

 ENGAGING HEALTH CARE SERVICES IN CURBING GENDER BASED VIOLENCE IN KERICHO COUNTY

 MASTERS CLASS 2024

 Mount Kenya University

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Appendix VII: Similarity Index Report (Pg 2)

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Appendix VIII: Research Site Map

