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**ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE  
DEPARTMENT OF PROJECT MANAGEMENT  
POSTGRADUATE PROGRAM**

**THE IMPACT OF RISK MANAGEMENT MATURITY ON PROJECT SUCCESS: IN THE  
CASE OF COMMERCIAL BANK OF ETHIOPIA**

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**A Research Project Submitted in Partial Fulfillment of the Requirements for Obtaining the  
Degree of Masters of Project Management**

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**June, 2024**

**Addis Ababa, Ethiopia**

## STATEMENT OF DECLARATION

I declare that the project work entitled “**THE IMPACT OF RISK MANAGEMENT MATURITY ON PROJECT SUCCESS: IN CASE OF COMMERCIAL BANK OF ETHIOPIA**” is my original work and all sources of material used for the work have been duly acknowledged.

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EDEN BELACHEW TUFA

## STATEMENT OF CERTIFICATION

This is to certify that, this project work “THE IMPACT OF RISK MANAGEMENT MATURITY ON PROJECT SUCCESS: IN CASE OF COMMERCIAL BANK OF ETHIOPIA”, undertaken by Eden Belachew Tufa in partial fulfilment of the requirements for Master of Arts in Project Management at Addis Ababa University School of Commerce, is an original work and not submitted earlier for any Degree either at this university or any other university.

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PROJECT MANAGEMENT PROGRAM

The impact of risk management maturity on project success: in case of Commercial bank of Ethiopia

BY: EDEN BELACHEW TUFA

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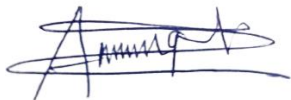
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Date -June/29/2024

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## ACRONYMS/ABBREVIATIONS

CBE- Commercial Bank of Ethiopia

RM3- Risk maturity management model

RMM- Risk management maturity

PBO- Project-based organization

ISO- International organization for standardization

## **ABSTRACT**

*The relevance of assessing whether risk management contributes to project success is highlighted by the extensive track record of failure in projects. While there has been considerable effort and research dedicated to exploring the link between risk management and project outcomes, only a limited number of studies offer concrete empirical evidence to support the assertions regarding this relationship. Consequently, this study aims to examine the impact of project risk management maturity on project success within a Bank.*

*The study is conducted in Commercial Bank of Ethiopia, one of the largest and oldest banks in Ethiopia. The study adopted a descriptive and explanatory research design. Risk maturity on project success is assessed quantitatively using a structured five-point Likert scale questionnaire. Descriptive and inferential data analysis method was applied. There was a finding that the organization had a “Defined” level of risk management maturity, with a low level of project success. The data was analyzed using SPSS ver 23.00. The result of the study reveals that the relationship between risk management maturity dimensions (Risk management planning, Risk identification, Qualitative risk analysis, Quantitative risk analysis, Risk response, and Risk monitoring and evaluation) and project success have a significant and positive relationship at 99% with a sig value of 0.001. It’s recommended that the organization takes action to upgrade its level of risk management maturity so that it can boost its project success.*

**KEY WORDS-** RISK MATURITY, PROJECT SUCCESS, PROJECT MANAGEMENT, RISK MANAGEMENT

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## CHAPTER 1 INTRODUCTION

### 1.1 BACKGROUND OF THE STUDY

The business environment is swiftly growing more complicated and fiercely competitive for organizations. Significant technological advancements and frequent changes in the business landscape offer numerous opportunities and challenges for organizations striving for sustainable growth. (Bouer & de Carvalho, 2005)

Every project comes with inherent risks, so assessing how well these risks are managed is useful for recognizing and getting ready for any potential adverse effects they might pose on the projects.

Currently, risk management plays a crucial role in an organization's strategic management. It should be a continuous and evolving process integrated into the organization's strategy and operational implementation. This involves systematically analyzing risks associated with past, present, and future activities, aligning with the organizational culture through an effective policy and program overseen by top management. Consequently, the key elements of strong risk management focus on identifying and addressing risks effectively.. (FERMA, 2003)

Organizations often use maturity models as a self-evaluation tool to measure their existing abilities in certain functional, strategic, or organizational areas. These models define different levels and attributes of maturity, helping everyone in the organization understand the potential adjustments needed to advance to a higher maturity level, if that's their goal. (ITIL, 2013)

Risk management's significance in project success has long intrigued academic and professional spheres. In today's dynamic and competitive setting, adept risk management is vital for organizational triumph. It encompasses the protocols, directives, and strategies that entities employ to identify, assess, mitigate, and supervise risks that might hinder their objectives. Whether for expansive multinational corporations or burgeoning small enterprises, effective risk management is crucial for maintaining seamless operations, protecting assets, enhancing decision-making protocols, and promoting enduring, sustainable growth. (Baker,et. al ,2009)

Baker, et. al (2009) They suggest that determining the impact of risk management is challenging because it's difficult to gauge the influence of a measure meant to avert an uncertain event, especially when the occurrence of that event is not guaranteed.

The significance of risk management becomes evident in project-based environments, where organizations embark on various initiatives to innovate, expand, or improve their products, services, or processes. Projects

are unique endeavors with defined objectives, scopes, timelines, and allocated resources focused on attaining specific outcomes. However, they inherently face multiple risks that can impact their success, such as exceeding budgets, extending timelines, quality issues, stakeholder conflicts, compliance issues, market volatility, and technological hurdles. (Budi, Deo, & Hilya, 2019)

Within this context, risk management maturity refers to an organization's capability to effectively foresee and manage risks throughout the entire project lifecycle. A mature risk management approach is characterized by a systematic and structured strategy that integrates risk assessment into strategic planning, project initiation, execution, monitoring, and closure stages. It involves a comprehensive understanding of internal and external risk elements, clearly defined responsibilities for risk management activities, robust risk assessment methods, proactive risk response strategies, continuous monitoring and reporting mechanisms, and a culture that emphasizes learning and improvement.

## 1.2 STATEMENT OF THE PROBLEM

The Covid-19 global pandemic served as a harsh reminder for organizations worldwide, particularly those lacking resilience and sustainability strategies to navigate turbulent times. Numerous organizations failed to withstand the economic and social repercussions of the pandemic, leading to collapses. Inadequate risk management, coupled with failures in financial reporting, contributed to business failures and potential bankruptcies. (Obrenovic & Du Jianguo, 2020).

Numerous challenges and setbacks arise mainly due to unforeseen changes in consumer habits, disruptions in supply chains, and the widespread adoption of Work from Home (WFH) arrangements prompted by city lockdowns or social distancing measures in many countries. Consequently, there's an increasing need to build and sustain resilience and sustainability. (Antonius & Norimarna, 2021)

Banks in different nations like Ethiopia are increasingly acknowledging the significance of advancing their risk management maturity as they strive to attain their strategic objectives through transformative endeavors. Establishing a mature risk management approach is viewed as crucial for successful transformation. To chart a course towards enhancing maturity, particularly in resilience and sustainability in line with their strategic vision, these organizations must initially evaluate their existing level of risk management maturity. Using this assessment as a foundation, they can then devise a roadmap for enhancement. (Puti & Syarifa, 2021)

For Tomas & Alcantara (2013) Risk management has played a crucial role in efforts to effectively reduce vulnerabilities. In this context, certain researchers have proposed models that can serve as practical guidelines for implementing this management approach. According to Fredrico & Martins (2012) in recent years, researchers in the field of business management have extensively examined the concept of maturity, with a focus on diverse areas. Ongel (2009) says that when an organization embraces the concept of maturity, it becomes well-positioned to accomplish its objectives. To conduct the assessment effectively, the company should implement the Risk Management Maturity Model (RM3), which is in accordance with its risk management standard, namely ISO 31000. According to John & Woodtarper, Project risk management is a key aspect of implementing good governance within the company. However, it is also recognized as one of the most significant contributors to project failures.

This study aims to employ statistical analysis to determine how project risk management maturity influences project success. Through gathering empirical data, the study intends to make inferences regarding the interplay between these aspects. This includes evaluating the effectiveness of the project risk management process concerning project successes across the involved organization, Commercial Bank of Ethiopia.

### 1.3 RESEARCH QUESTIONS

To address the challenges outlined in the problem statement, the following research questions were formulated.

1. What is the level of the project risk management maturity the organization is in?
2. What is the level of the project success at CBE?
3. Does the level of project risk management maturity impact project success?

### 1.4 RESEARCH OBJECTIVES

#### General objective

- ❖ The general objective of this study is to analyze the impact of risk management maturity on project success.

#### Specific objective

- ✓ Evaluate the level of maturity of project risk management at CBE
- ✓ Evaluate the level of project success at CBE
- ✓ Determine whether a project risk management maturity affects project success

### 1.5 SIGNIFICANCE OF THE STUDY

Recognizing the relationship between risk management maturity and project success is highly important for organizations striving to improve their overall performance. Mature risk management not only reduces risks efficiently but also improves resource allocation and project delivery effectiveness. Consequently, organizations can achieve their strategic goals more efficiently and consistently.

Moreover, through examining the influence of risk management maturity, organizations can pinpoint crucial elements that foster project success, thus reducing the chances of project failures and budget overruns.

Additionally, mature risk management procedures offer decision-makers precise and timely data regarding potential risks, their consequences, and available mitigation plans. This equips decision-makers to make well-informed choices, prioritize tasks according to risk evaluations, allocate resources efficiently, and enhance project governance overall.

## 1.6 SCOPE/DELIMITATION OF THE STUDY

Conceptually, with regard to risk management maturity, this study will take place on six attributes or processes of risk management maturity based on PMBoK but there are other attributes stated by other researchers that can be studied which will help one discover their level of maturity more.

Furthermore, in case of project success the study will focus mainly on factors of cost, quality, time, and scope and customer satisfaction. Again future researchers have options of expanding the scope by adding other factors.

Methodologically, the research was conducted only in quantitative approach but the researcher believes both quantitative and qualitative research approach be applied for future researches to be made to obtain more reliable and valid data.

## 1.7 LIMITATION OF THE STUDY

The primary challenge anticipated by the researcher in conducting this study is the constraint of time. With several projects ongoing at CBE, the study will only include respondents from three specific projects.

Additionally, the study had two primary limitations:

- The research relied solely on closed-ended questions in the survey, with no interviews conducted. This limits the generalizability of the findings.
- The study focused on IT operations within a banking context, thus the findings may only be applicable to banking organizations.

## 1.8 DEFINITION OF KEY TERMS

Risk- "Risk is the effect of uncertainty on objectives. An effect is a deviation from the expected — positive and/or negative. Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product, and process)." - ISO 31000:2018, Risk Management Guidelines

Project- "A project is a temporary endeavor undertaken to create a unique product, service, or result, with defined objectives, scope, resources, and timeline, typically involving multiple stakeholders and requiring coordinated effort and management." (Johnson & Smith, 2022).

Risk management -"Risk management is the systematic process of identifying, analyzing, evaluating, treating, and monitoring risks to achieve organizational objectives. It involves establishing policies, procedures, and practices to address uncertainties and maximize opportunities while minimizing adverse impacts." (Garcia & Chen, 2023)

Risk management maturity -"Risk management maturity refers to the organization's capability to effectively and proactively identify, assess, mitigate, and monitor risks across all levels and functions. It encompasses the development of risk management policies, processes, systems, and culture that evolve over time to enhance resilience and support strategic objectives." (Lee & Kim, 2023)

Triple constraint -"The triple constraint refers to the interdependent relationship among scope, time, and cost in project management. It reflects the balance and trade-offs that must be managed to achieve project objectives successfully, where changes to one constraint often impact the other two." (Wang & Chen, 2023)

Project success-"Project success is the achievement of predefined project objectives within the constraints of time, cost, scope, quality, and stakeholder satisfaction. It involves meeting or exceeding stakeholder expectations, delivering value, and contributing to organizational goals and strategic outcomes." (Gomes & Silva, 2023)

## 1.9 ORGANIZATION OF THE STUDY

The study comprises five chapters. The first chapter serves as an introduction, presenting the background, problem statement, research questions, objectives, significance, limitations, scope, and organization of the study. Chapter two reviews existing literature to inform readers of the current knowledge in the field. Chapter three outlines the research methodology and design. Chapter four focuses on data analysis and interpretation. Lastly, chapter five presents the study's conclusions and recommendations based on the findings.

## CHAPTER 2 REVIEW OF RELATED LITERATURE

### 2.1 INTRODUCTION

Project-based organizations (PBOs), encompassing a broad spectrum from non-profit entities to Banks, engineering and construction firms, IT companies, and consulting agencies, are navigating a landscape of escalating complexity. Each day brings forth a myriad of challenges as these organizations rely on project deliveries for revenue generation, confronting demanding clientele, intensifying market competition, and the intricacies of increasingly complex projects. To maintain a competitive edge, PBOs are compelled to strategize and execute initiatives that align with their overarching goals. Among the well-established strategies for driving such initiatives is the implementation of continuous improvement methodologies facilitated by organizational maturity frameworks. (Budi, Deo, & Hilya, 2019)

Amidst these complexities, PBOs are increasingly recognizing the value of organizational maturity frameworks in driving continuous improvement. These frameworks provide a structured approach to assess current capabilities, identify areas for enhancement, and systematically implement changes to achieve higher levels of maturity. By fostering a culture of continuous learning, innovation, and adaptability, PBOs can effectively navigate the challenges of today's dynamic business environment and position themselves for sustained success. (Budi, Deo, & Hilya, 2019)

Risk management maturity refers to an organization's ability to effectively identify, assess, mitigate, and monitor risks throughout the project lifecycle. This concept is increasingly recognized as a critical factor in determining project success. As projects become more complex and dynamic, the need for robust risk management practices becomes paramount to ensure the achievement of project objectives within time, cost, and quality constraints. (Ben, 2023)

Several empirical studies have investigated the relationship between risk management maturity and project success across various industries and sectors which will be sated later in this paper. These studies have sought to quantify the impact of mature risk management practices on key project success metrics.

In this context, this paper aims to delve deeper into the impact of risk management maturity on project success, drawing on existing empirical evidence and exploring key factors that contribute to successful project outcomes.

## 2.2 CONCEPTUAL REVIEW

### 2.2.1 RISK AND RISK MANAGEMENT

Risk is commonly viewed as a potential danger or something to steer clear of. Yet, it's widely acknowledged that achieving success often involves taking risks, especially when they bring new opportunities and improved outcomes. Project management inherently involves navigating uncertainties and risks. Although uncertainty is challenging to manage and control, effective risk management remains a vital aspect of ensuring project success.

ISO's risk management standard ISO/DIS 31000 defines risk as the impact of uncertainty on objectives, encompassing both positive and negative outcomes. This definition aligns with the original meaning of 'risk' as 'to dare,' highlighting its application to both opportunities and adverse events.

Project risk refers to the possibility of an event occurring that could impact the outcome of a project, either positively or negatively. These risks can influence deliverables, schedules, and budgets, and if not handled effectively, they can result in project failure. (Marker, 2022)

Risk management involves identifying, assessing, and prioritizing risks, followed by strategically allocating resources to reduce, monitor, and control the likelihood or impact of adverse events, or to maximize the benefits of opportunities. (PMI, 2021)

Risk management is a crucial part of project planning and execution, especially in environments that are constantly changing and full of uncertainties. Risks in projects can involve various events or situations that might affect project goals, like delays in schedules, exceeding budgets, limited resources, technical difficulties, and external factors such as market shifts or regulatory alterations.

Risk management is relevant for any project that includes uncertainty and potential risks. Each project comes with its own set of unique risks based on its characteristics and scale. Incorporating risk management into project planning and execution is crucial to mitigating risks to the greatest extent possible. (Katherine & Laury, 2023)

Risk identification, a crucial element of project risk management, entails systematically recognizing and recording potential risks that could emerge during the project's lifespan. This typically involves brainstorming sessions, risk workshops, expert consultations, and an analysis of past project information to pinpoint known risks and foresee potential new ones. The objective of risk identification is to compile a

Thorough risk register containing all acknowledged risks alongside their possible impacts, chances of occurrence, and mitigation plans. Through proactive risk identification, project teams can devise contingency strategies and allocate resources efficiently to manage potential challenges as they arise.

Risk assessment and analysis are crucial stages in the risk management process, enabling project teams to gauge the importance of identified risks and rank them according to their probable impact and likelihood. Techniques like qualitative risk analysis, quantitative risk analysis, and risk modeling are utilized to evaluate risks based on severity, probability, and how they relate to each other. By conducting risk assessment, project teams can allocate resources, create risk response strategies, and track risks throughout the project duration to ensure prompt and efficient risk mitigation. Incorporating risk assessment into project planning and decision-making enhances organizations' capacity to handle uncertainties and enhance project results. (Johnson & Smith, 2022)

While it's impossible to foresee every risk or plan for every possible scenario, risk management is crucial. It's essential to structure your team and procedures in a manner that simplifies the identification and mitigation of risks whenever feasible, thereby reducing their impact on a project. (Marker, 2022)

The concept of risk management can vary depending on the type of project being considered. For sizable projects, risk management strategies could involve thorough and meticulous planning for each risk to guarantee that mitigation plans are prepared in case project challenges arise. On the contrary, for smaller projects, risk management might entail developing a simple list that categorizes risks as high, medium, or low priority. (Schwartz, 2021)

Risk management encompasses various approaches, one of which involves identifying the most significant risk, known as risk exposure. Following the identification of risk exposure, there are four primary strategies for addressing risks in project management.

- Risk assessment
- Risk mitigation
- Risk avoidance
- Transferring risk

Risks can be categorized into two groups: project-specific risks and organizational-level risks. Project-specific risks are unique to a particular project, whereas organizational-level risks are common to all projects but pertain specifically to the organization.

Although crucial, risk management shouldn't be viewed as a hindrance to project advancement; instead, it should be seen as a chance for enhancement. Risk management plays a vital role by mitigating or eradicating potential risks that could impact project success and by minimizing adverse effects from unforeseen occurrences. (Katherine & Laury, 2023)

### *HERE ARE SOME FACTORS OF PROJECT RISK*

Internal factors of project risk

- Team-related (e.g., skills gaps, poor communication, personnel changes)
- Resource-related (e.g., budget constraints, resource availability, outdated technology)
- Organizational (e.g., leadership changes, unclear goals, management styles)

External factors of project risk

- Market-related (e.g., market shifts, regulatory changes, economic downturns)
- Technological (e.g., vendor management issues, rapid advancements in technology, cyber security threats)
- Environmental (e.g., natural disasters, political events, pandemics) (Harris, 2024)

### *WHY IS RISK MANAGEMENT IMPORTANT?*

- Recognizing and evaluating risks is a fundamental duty for project managers, as it assists in prioritizing project management efforts. If a risk assessment indicates that a particular threat will have a significant impact, preemptive measures should be taken to either avoid or lessen that threat.
- Risk management is a crucial component of project management and greatly influences a project's success. Its purpose is to pinpoint, evaluate, and prioritize potential risks that could affect the project's goals, followed by devising strategies to mitigate or evade those risks.
- A key advantage of risk management is its ability to enable project managers to foresee and prepare for potential issues in advance. By identifying and evaluating risks early on, project managers can

Proactively address them, reducing the likelihood of delays, cost overruns, and other negative repercussions on the project.

- Risk management aids project managers in enhancing decision-making processes. By evaluating potential risks and their consequences, project managers can assess the advantages and disadvantages of various options and opt for the most favorable course of action for project success.
- Additionally, risk management contributes to maintaining project alignment and achieving objectives. Through the identification and mitigation of risks, project managers can mitigate disturbances and maintain project progress.

Generally, risk management is a vital aspect of project management and a key determinant of project success. Through the identification, evaluation, and mitigation of potential risks, project managers play a crucial role in keeping projects aligned with their objectives, minimizing adverse effects, and maximizing the likelihood of success. (Sharma, 2024)

- Reduced likelihood of project spiraling out of control.
- Holistic view of the entire project.
- Improved predictability of project outcomes.
- Enhanced communication among all project participants.
- Early detection of issues in project progress.
- Lessons learned for future projects.

The lessons learned from managing risks in a current project can be applied to future projects.

#### *WHAT ARE THE CHALLENGES OF IMPLEMENTING RISK MANAGEMENT?*

- Identifying risks in projects can be challenging.

Occasionally, project managers encounter resistance from stakeholders or senior management regarding the identification of project risks. This resistance stems from excessive optimism about the project implementation process or a lack of recognition of the importance and value of dedicating time and effort to risk identification.

- Unengaged leadership

This challenge involves responding to risks effectively, particularly when there is a delay or lack of action from leadership or key decision-makers after receiving reports of unfavorable situation

- Treating a risk management plan as a mere formality.

Issues can arise when a risk management plan is created but not adequately implemented due to a lack of attention given to the risk management process itself.

- Handling risks in a multi-project setting.

Managing multiple projects is inherently more complex than overseeing a single project, intensifying the challenges of risk management. Prioritization of projects and their associated risks becomes essential in such scenarios to effectively navigate and address the heightened complexities. (Victoria, 2021)

### 2.2.2 RISK MANAGEMENT PROCESS

The risk management process is a structured method for recognizing, evaluating, prioritizing, and mitigating risks in an organization or project. It encompasses crucial stages necessary for efficiently handling uncertainties and capitalizing on opportunities. The initial phase of this process is risk identification, which involves identifying potential risks and opportunities using diverse methods like brainstorming, risk assessments, historical data review, and consulting stakeholders.

After identifying risks, they are evaluated concerning their chances of happening and their potential influence on project aims or organizational objectives. This evaluation leads to risk analysis, which can be qualitative or quantitative, depending on the intricacy and scale of the risks. Qualitative risk analysis entails evaluating risks based on their likelihood and impact using methods like risk matrices, while quantitative risk analysis employs statistical models and data analysis to measure risks in terms of monetary values or probabilities.

After conducting risk analysis, the next phase is risk prioritization, where risks are ranked according to their seriousness and potential impacts. This aids organizations or project teams in focusing their attention and resources on addressing high-priority risks that pose significant threats or opportunities. Following this, risk response planning involves creating strategies and plans of action to either mitigate, transfer, avoid, or accept risks based on their prioritization and the organization's risk tolerance levels. Lastly, the risk management process encompasses continuous monitoring and control of risks throughout the project or organizational lifecycle. This ensures that risks are monitored, assessed, and managed efficiently over time, allowing for timely adjustments to risk response plans and continual enhancement of risk management practices. (Hillson & Murray, 2017)

According to the PMBoK guide, Project risk management consists of six process.

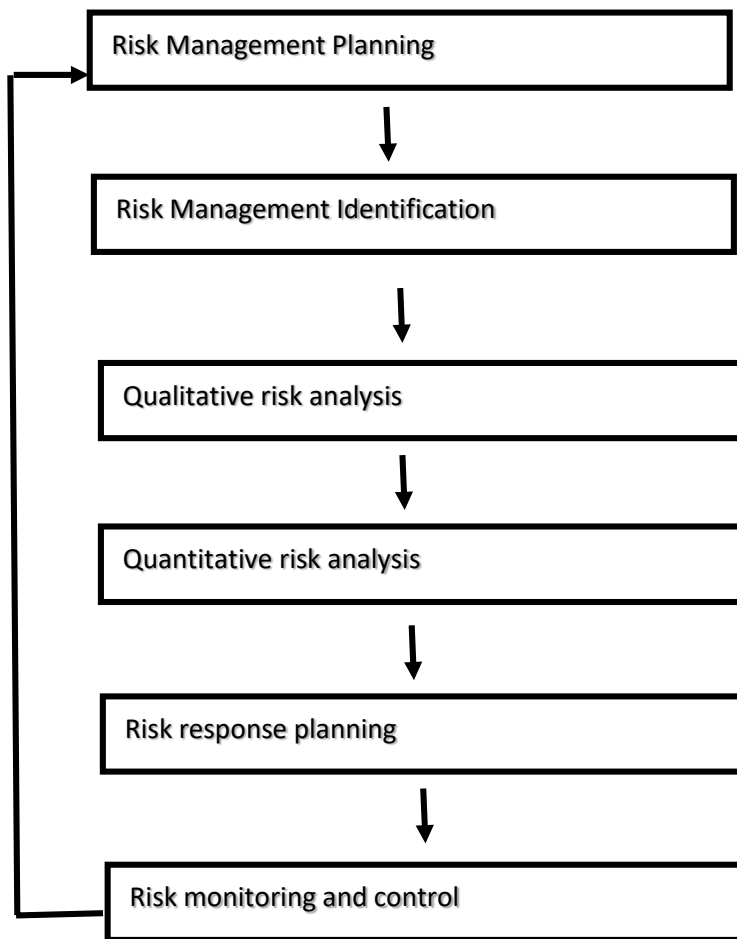


Figure 1 Project management process

According to the PMBoK® guide, project risk management consists of six processes:

- a. Risk management planning involves strategizing and organizing how to approach and execute risk management activities within the project.
- b. Risk identification is the process of pinpointing potential risks that could impact the project and documenting their characteristics.
- c. Qualitative risk analysis entails prioritizing risks based on their likelihood and potential impact.
- d. Quantitative risk analysis involves numerically estimating the impact of risks on project objectives.

- e. Risk response planning includes taking actions to leverage opportunities and minimize threats to achieving project goals.
- f. Risk monitoring and control encompass identifying new risks, implementing risk response plans, and evaluating the effectiveness of risk strategies throughout the project's duration.

### 2.2.3 WHAT IS PROJECT RISK MANAGEMENT MATURITY?

The answer is to efficiently achieve a satisfactory level of risk at a reasonable cost. Achieving this involves developing effective risk management processes within performing organizations to ensure project objectives are met.

Starting with a risk maturity assessment offers valuable insights into your current maturity level and highlights areas that require improvement. It's crucial to evaluate not only your present position but also your desired future state and the necessary risk management standards. Surprisingly, aiming for the top tier isn't always necessary across all risk aspects; understanding where "good enough" suffices helps focus efforts. Organizations should view the maturity model as a progressive framework, gradually evolving to meet regulatory and stakeholder expectations. Evaluating risk management capabilities against this model aids in understanding current standing and setting clear short and long-term goals.

A risk management maturity assessment is a method used to evaluate the current level of risk maturity within a business. It acts as a standard against which your organization's risk management practices can be compared to industry best practices. Maturity levels are determined by considering the organization's processes, methodologies, culture, technology, and governance structures.

Risk maturity gauges an organization's proficiency in identifying, evaluating, handling, and overseeing risks. It signifies the quality and integration of an organization's risk management methodologies. A high level of risk maturity indicates the organization's ability to make informed decisions regarding risks and achieve intended results effectively. (Ben, 2023)

A risk management maturity model helps organizations assess their risk management processes based on established frameworks. It provides a structured path for developing and enhancing risk management strategies, expediting the maturity journey. As organizations progress through the model's levels, their risk management practices become more integrated, governed, and comprehensive. Ultimately, at the highest level, risk management becomes a strategic imperative deeply embedded in the core of business operational planning.

The organization's risk maturity reflects its readiness to manage a range of risks. The Chartered Institute of Internal Auditing defines five stages of risk maturity:

1. Risk Naive (stage 1)
2. Risk Aware (stage 2)
3. Risk Defined (stage 3)
4. Risk Managed (stage 4)
5. Risk Enabled (stage 5)

Almost no organizations begin at stage 5 of risk maturity. It's a gradual process that requires improvements at each stage along the way. (Oyvind, 2020)

Hillson (1997) originally proposed a risk maturity model that includes four levels of risk management proficiency (naive, novice, normalized, and natural) applicable to projects and businesses. The author emphasized that implementing risk management results in varying degrees of success, and many individuals feel disappointed when they fail to achieve the anticipated benefits.

Yeo and Ren (2009) contended that a strong correlation exists between the maturity of risk management capabilities and project success, as risks are assessed in terms of their impact on achieving project objectives. They proposed that organizations seeking to implement a structured risk management approach should grasp the fundamental nature of risk and the essential development of capabilities through continuous learning and improvement processes.

Project risk management involves various stages such as planning, identification, qualitative and quantitative analyses, response planning, and risk control within a project. These stages are interconnected and also interact with processes in different Knowledge Areas of project management. (PMI, 2021).

Maturity models are employed across various sectors to assess and compare performance, enabling organizations to gauge their standing in relation to others. (Farrel & Gallagher, 2015)

### *WHAT ARE THE BENEFITS OF RISK MATURITY?*

As risk maturity levels rise, numerous advantages become apparent.

Pursuing risk maturity is financially advantageous. According to a worldwide study, companies in the top 20% of risk maturity experienced three times higher earnings compared to those in the bottom 20%.

Additionally, risk-mature organizations could anticipate a 25% increase in their valuation and a reduction of up to 34% in stock price volatility.

Furthermore, organizations with high risk maturity enhance their internal capacity to effectively manage risks, boost resilience, and enhance their reputation within their industry. Clearly, prioritizing the creation of a strategy to elevate your organization's risk maturity is essential for risk managers in the long run. Fortunately, this task is not as daunting as it seems, especially when utilizing comprehensive risk management tools.

Generally, a maturity model can help you answer the following questions:

- ✓ How effectively is our organization currently managing its risks?
- ✓ What level of capability does our organization need regarding business risks?
- ✓ What strategies can we employ to reach the desired level of risk maturity?
- ✓ What is the expected timeline for achieving this goal?
- ✓ What risk management processes are currently implemented?
- ✓ How can we utilize existing processes to enhance our risk management maturity plan? w effectively can our organization currently handle its risks? (Centraleyes, 2024)

#### 2.2.4 PROJECT SUCCESS

Traditionally, project success is often seen as meeting objectives within budget and on schedule, a common measure across industries. However, in developmental projects, success extends beyond these metrics to encompass delivering benefits and meeting expectations of beneficiaries, stakeholders, and funding entities. Defining these success dimensions is challenging, with some only assessable years post-project. Many organizations struggle with such evaluations due to financial constraints. (Rodolfo, 2024)

Success in project management is determined by how effectively a project manager accomplishes the project's goals and objectives. It's important to deliver the project on time and within budget, which involves optimizing limited resources. Equally crucial is cultivating positive relationships with all stakeholders involved. (Megan, 2021)

The success of a project lacks a precise or certain description and varies from one project to another. This definition suggests that success cannot be determined without referencing specific criteria. Generally,

project success can be defined as achieving the predetermined objectives of the project. According to the Project Management Body of Knowledge (PMBOK Guide) – Sixth Edition, time, cost, quality, and customer satisfaction are considered the criteria for project success. (PMI, 2021)

### *THW TRIPLE CONSTRAINT / PROJECT SUCCESS CRITERIA*

Defining project success criteria not only ensures a successful project but also aids in improving future projects. It serves as a learning opportunity for continuous enhancement based on experience.

The fundamental success criteria for a project are cost, scope, and time, often referred to as the triple constraint. While specific details may vary based on industry, company, or project objectives, success or failure typically hinges on these three factors.

Achieving project success means delivering within the budget, meeting the defined scope in project documents, and completing the project on time. However, success involves more than just meeting these basic criteria. It's crucial to delve deeper and define what cost, scope, and time entail in practical terms to truly understand what constitutes a successful project. This includes not only staying within budget but also generating value for investment and realizing benefits for stakeholders. (Megan, 2021)

### *Triple constraint theory importance for project success*

The triple constraint theory helps project managers recognize competing demands in every project. It consists of three elements: time, cost, and scope. According to this theory, these three elements are interrelated, and any change in one will affect the other two. For example, if the scope of a project is increased, it will likely require more time and money to complete. Similarly, if the deadline for a project is moved up, it may require more resources, which could increase costs. By understanding these relationships, project managers can make informed decisions about how to adjust one element to balance the project and keep it on track.

For example, if time is the priority and the deadline cannot be moved, adjustments to the scope and budget may be necessary to ensure that the project is completed on time. This might involve reducing the scope of the project or increasing the budget to allocate more resources to meet the deadline.

Every stakeholder has their own perspective on what is most important to the project. The triple constraint theory provides a framework that helps everyone involved understand the interdependent relationship among the three constraints: time, cost, and scope. This understanding makes it easier for you and your

team to adjust and adapt to changes that may arise during the project, as you can assess the impact of changes on the other constraints and make informed decisions accordingly. (Lucidsparks, 2024)

While the Triple Constraints of Project Management are crucial for project success, they do not encompass all aspects defining that success. Projects involve numerous components beyond the three constraints that make up the Triple Constraint. (Simplilearn, 2023)

### 2.2.5 THE POSSIBLE LINK BETWEEN RISK MANAGEMENT AND PROJECT SUCCESS

Al-Rousan, Sulaiman & Salam (2010) argue that every project inherently involves risks and challenges. Their reasoning is that the success of a project isn't due to the absence of risks and problems, but rather the effective management and resolution of those risks and problems. It is also worth noting the observation by Baccarini et al. (2004) that project risk can have big impact on cost, schedule performance, quality and other project resources.

Risk management is a vital part of project management, playing a crucial role in determining the success of a project. Its purpose is to identify, evaluate, and prioritize potential risks that could affect the project's goals, followed by devising strategies to minimize or prevent those risks. (Sharma, 2024)

Labuschagne & Marnewick (2008) observed that there is no clear correlation definitively showing that project success relies solely on the maturity level of an organization. However, according to a 2004 Price Waterhouse Coopers survey conducted across 30 countries worldwide, there is a proven connection between project management maturity and enhanced project management performance (Wheatley, 2007). While project performance is not synonymous with project success, its improvement could lead to project success. This paper examines the maturity of project risk management and investigates its implications on project success. More empirical studies are listed below.

### 2.3 EMPIRICAL STUDY

A study made by Heravi & Gholami, (2018) found that improving how we handle risk management in projects can raise both costs and timelines, yet it also brings about better quality. The key to reaching a higher level of risk management in projects is in how we put it into practice, which notably affects cost and quality rather than project duration. Quality notably benefits more as risk management maturity grows, leading to a gradual but significant enhancement.

A study made by Budi, et al (2019) asserts that there is a clear, beneficial link between the maturity of risk management and how well an organization performs. This relationship, however, may be influenced by the complexity of the projects the organization undertakes. The study's findings indicate that while project risk management is valuable for all organizations, its effectiveness is less pronounced for those dealing with less complex projects.

The author suggests that factors such as planning, change management, project characteristics, and the project environment may also significantly influence project success or failure, potentially overshadowing or even excluding the importance of risk management. However, the goal of project risk management should be to minimize the likelihood and impact of potential risks while maximizing the potential for opportunities. The impact of risk management in projects extends to raising awareness, defining expectations, gaining acceptance and commitment, building trust, and prioritizing tasks, all of which contribute to increasing the likelihood of project success.

Another researchers Daranee & Veera (2017) points out that identifying risks and planning responses to them have a significant impact on project performance and success. Among these factors, risk identification has the most positive influence on project performance, followed closely by risk response planning. On the other hand, risk analysis has a slightly negative impact on product performance, which is crucial for overall project success.

He also stated that all facets of risk management, such as identifying risks, analyzing them, planning responses, and monitoring and controlling them, are crucial for achieving process and product performance as well as project success. However, it's advised to limit the extent of risk analysis practices to prevent any adverse effects on project timelines and budgets.

Baker, et.al, (2019) emphasizes that project performance, organizational culture, and project risk management play key roles in ensuring project success and should not be overlooked in any project.

Al-Shibly et al. (2013) investigated the impact of PRM on construction project success from the perspectives of owners and employees in Jordan. The empirical results indicated a positive impact of both risk identification and risk assessment on project success, with success criteria including time, budget, and achieving quality standards.

A study made by study made by (DIDRAGA, 2013) stated that “Risk management in projects is essential to: help avoid project failure; avoid rework; focus and balance team effort and stimulate win-win situations.

Risk and risk management have a key role because projects can be “vehicles of delivering” enabled organizational change, so achieving business objectives can be critically dependent upon their success.”

"Successful project completion depends to a great extent on the early identification of immediate risks".  
(Datta & Mukerjee, 2001)

Research by Smith et al. (2021) found a strong positive correlation between risk management maturity levels and project success rates in the construction industry. Their study, based on a sample of 100 construction projects, revealed that projects executed in organizations with higher risk management maturity were significantly more likely to meet project deadlines and budgets, leading to greater overall success.

Other studies have explored the impact of Project Risk Management (PRM) on project success, including Bakker et al. (2012), Rabechini & Carvalho (2013), Al-Shibly et al. (2013), Carvalho & Rabechini (2015), and Doskocil & Lacko (2018). Rabechini & Carvalho (2013) found that adopting risk management practices has a significant and positive effect on project success, a result consistent with the study by De Bakker et al. (2012), which investigated the potential influence of various PRM activities on project success in the context of ERP implementation projects. Considering these relationships and the literature review, hypotheses are proposed.

On the contrary, a study by Wazha (2011) presents a different perspective from the above researchers, stating that there is no correlation between project risk management maturity and project success. This suggests that having good risk management processes does not guarantee the successful delivery of projects. The study challenges the assumption in project management that the application of processes and procedures automatically leads to good project results. Bakker, Boonstra, & Wortmann (2009) support this notion, implying that in cases where a project fails, the project processes and procedures may need to be better executed or improved. Statistical evidence from this research indicates that there is generally no significant relationship between the efficiency of risk management processes and the successful delivery of technology projects. Success, therefore, depends on other factors besides process efficiency, which are unique to each organization.

## 2.4 CONCEPTUAL FRAMEWORK OF THE STUDY

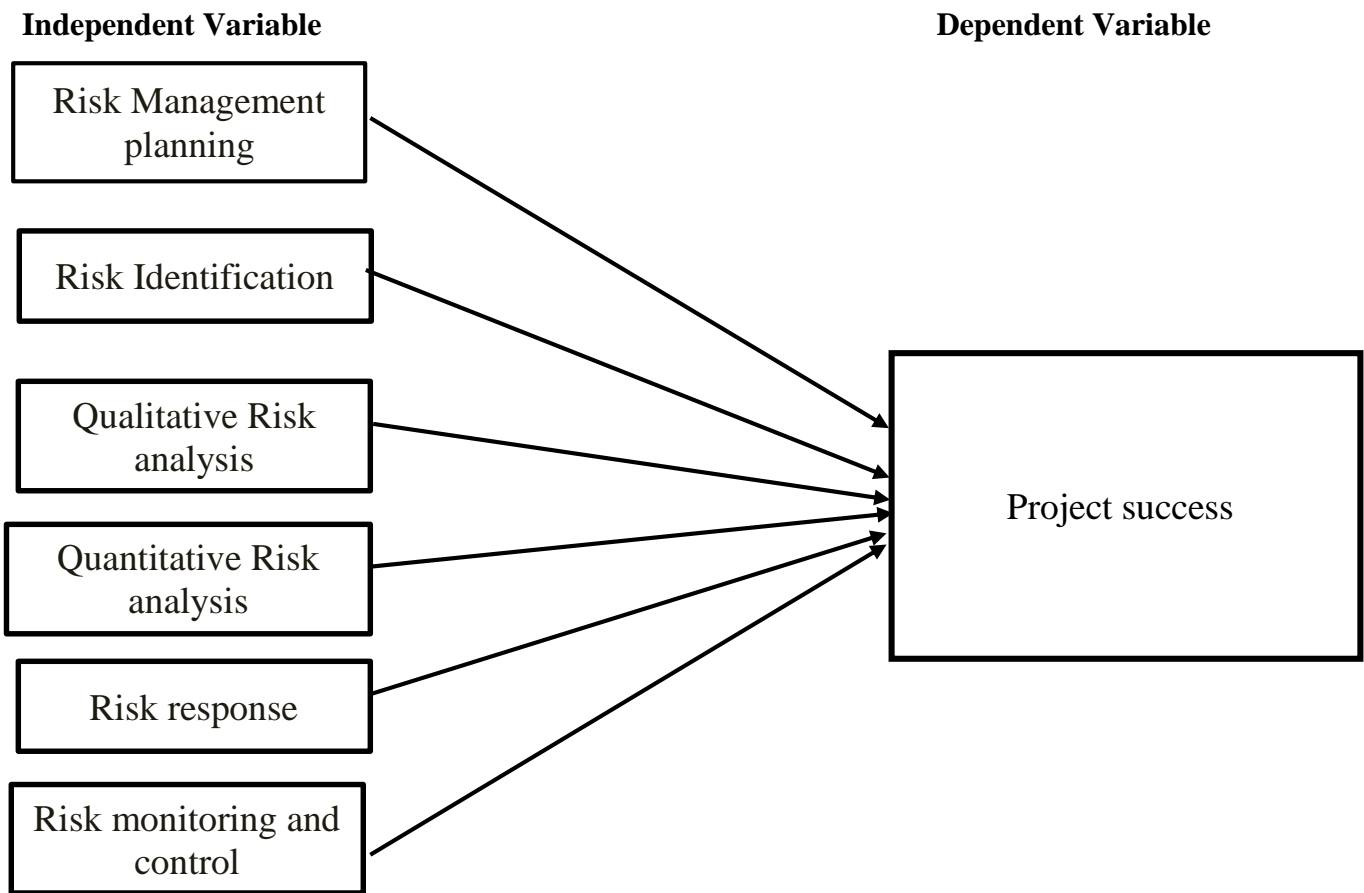


Figure 2 Conceptual framework

## 2.5. RESEARCH HYPOTHESIS

The following is the research hypothesis;

H1: The effect of **Risk Management planning** on project success is significant and positive.

H2: The effect of **Risk Identification** on project success is significant and positive.

H3: The effect of **Qualitative Risk analysis** on project success is significant and positive.

H4: The effect of **Quantitative Risk analysis** on project success is significant and positive.

H5: The effect of **Risk response** on project success is significant and positive.

H6: The effect of **Risk monitoring and control** on project success is significant and positive.

## CHAPTER 3 RESEARCH METHODOLOGY

The main objective of the research was to assess the impact of risk management maturity on project success in the CBE organization. The previous chapter presented a conceptual framework for the impact of risk management maturity compiled from the literature. This chapter discusses the research methodology employed in the study, including the research design, research instrument, population, sample size, sampling techniques, and validity and reliability.

### 3.1 RESEARCH DESIGN

A research design describes a set of assumptions and considerations that lead to specific, contextualized guidelines connecting theoretical notions and elements to a dedicated strategy of inquiry, supported by methods and techniques for collecting empirical material (Jonker & Bartjan, 2010).

Descriptive research aims to depict the current state of affairs and characterize features of a population or phenomena to produce an accurate profile (Kothari, 2004). One objective of this study is to determine the state of the company's maturity level in terms of characteristics. Explanatory research, also known as causal research, extends descriptive research by investigating and explaining why or how phenomena occur. It attempts to demonstrate causes, effects, or intents (Olsen & Pedersen, 2018). The researcher employed explanatory research to test the effect of risk management maturity on project success aspects.

### 3.1 RESEARCH APPROACH

Study design can be defined as qualitative, quantitative, or a combination of both based on the research purposes and data kinds (Creswell, 2022). Quantitative research is a study that uses statistical tools to arrive at conclusions. (Malhotra & Birks, 2007) Define quantitative research as the application of descriptive or explanatory approaches to answer hypotheses or research questions. Quantitative research design was employed in this study because it used statistical tools to arrive at conclusions. This approach applies descriptive or explanatory approaches to answer hypotheses or research questions, aligning with the concepts discussed earlier.

The one-time research (cross-sectional) timeline was chosen because it is confined to a single period and is the simplest to administer, not capturing the change process. Field research was conducted in a real-world setting outside the controlled environment of a laboratory, involving collecting data and analyzing phenomena as they naturally occur in their context.

### 3.2 RESEARCH PARADIGM

The study adopted positivist assumption about the nature of reality; (ontology-objective) and the method of investigating reality; (epistemology- through scientific method). To evaluate the link between independent and dependent variables, this study took a deductive method. A deductive research strategy focuses on developing theory driven hypothesis that are then tested via quantitative data analysis. As a result, without any involvement from the researchers, data acquired from respondents was used to experimentally evaluate hypotheses that had been constructed with prior established theories.

### 3.3 DESCRIPTION OF STUDY AREA AND TARGET POPULATION

The population for a study refers to the group of people about whom the research aims to draw conclusions (Babble & Mouton, 2001). It is the total group of people from which research information is intended to be obtained. In this study, which is conducted at CBE's Addis Ababa main office, a sample is taken because it is not feasible to study the entire population given the time available.

The population for a study is the group of people about whom the research wants to draw conclusion. (Babble & Mouton, 2001). Population is thus the total group of people which research information is intended to be obtained. The study is conducted at CBE, Addis Ababa main office because it is not possible to study all population given the time available, a sample is taken.

The preliminary observation to identify the right projects/respondents who are numerous, have relevant knowledge, experience, and ability to provide responses for project and risk-related research questions is indeed important. This approach ensures that the selected sample is representative and provides valuable insights for the study. As of April, 2024 CBE has a total of 50 employees who are working in three project teams, in their main project office, Addis Ababa. There are many projects taking place and not all projects were not part of the study.

### 3.4 SAMPLING TECHNIQUE AND SAMPLE SIZE

Sampling involves any procedure that uses a representative portion of a population to draw conclusions regarding the entire population (Maree & Pietersen, 2007). The sampling technique used falls into the non-probability category, where sample units are selected based on personal judgment rather than having a known non-zero probability of selection. This means that the probability of a particular unit of analysis being selected is unknown. For this study, the population is defined as the project management office in CBE. Responses were received from 45 individuals from the selected organizations.

For this study, respondents were selected using a purposive sampling approach from three project teams that had a relevant information. This sampling methodology is applicable for this case study because, as stated by Saunders, Lewis, and Thornhill (2022), when working with a limited sample size, purposive or judgmental sampling is appropriate. It allows for the use of judgment in selecting situations that help answer the research question and achieve the study's objective.

#### Sample size

According to Kothari (2004), sample size refers to the number of respondents taken from the population for the study. The sample size should be neither excessively large nor too small; it should be optimal to fulfill the requirements of efficiency, representativeness, reliability, and flexibility. Keeping this in mind, the number of samples is determined using the sample size determination formula developed by Yamane (1967). However, since our population is too small, we will take the whole population of 50 from the three projects.

### 3.5 DATA COLLECTION SOURCE, TYPES, INSTRUMENT

#### Data source

In this study, primary data was used to obtain relevant information. To achieve this goal, a well-designed Questionnaire survey was employed as the best instrument to gather primary data from the selected population.

#### Data collection instrument and type

The researcher utilized questionnaires as the primary data collection instrument. Owens (2002) recommends the use of questionnaires due to their potential to reach a large number of respondents within a short time, ability to give respondents adequate time to respond, and offering a sense of privacy and confidentiality. The researchers therefore selected this instrument as a quick and cost-effective way to collect data.

The primary research instrument for this study will be a questionnaire. The questionnaire for variables under risk management maturity is adapted from the research paper by Wazha Omphile titled "The implications of project risk management maturity on information technology project success," published in 2011. The questionnaire for the project success variable is adopted from the research paper by David Baccarini titled "Project success - A survey," published in the Journal of Restructuring Finance in September 2004.

The questionnaire used for the study is divided broadly into two sections. The first section is the demographic section, which includes variables such as age, gender, highest educational level, position in the organization, and years of experience. The second section pertains to risk management maturity and project success dimensions outlined in the conceptual framework. This section contains questions to be answered

using a five-point Likert scale, where respondents indicate their agreement/disagreement with various statements related to risk maturity and project success. The scale ranges from "strongly disagree" (1) to "strongly agree" (5).

### 3.6 DATA ANALYSIS- SOFTWARE, MODEL, TECHNIQUE

Data analysis, as per Mugenda and Mugenda (2021), involves bringing order, structure, and meaning to a large volume of data. The collected data was analyzed using quantitative data analysis methods. For the questionnaire, data analysis was conducted using SPSS (Statistical Package for Social Science) version 23, after assigning numerical codes to each response paper. SPSS was chosen because it is a readily available and user-friendly analysis tool with which the researcher is familiar.

Descriptive analysis entails summarizing and describing the primary features of a dataset. This analysis concentrates on comprehending the fundamental characteristics of the data, including central tendency, dispersion, distribution shape, and relationships between variables. Descriptive statistics are employed to organize, summarize, and present data meaningfully. Common descriptive statistics comprise measures such as mean, median, mode, standard deviation, and range.

The study also utilized regression analysis, a statistical method used to analyze the relationship between one dependent variable (usually denoted as Y) and one or more independent variables (usually denoted as X). The objective of regression analysis is to model the relationship between the variables and make predictions based on that model.

There are various types of regression analysis, including linear regression, logistic regression, polynomial regression, and others. Linear regression is among the most common types, assuming a linear relationship between the dependent variable and independent variable(s).

Data was categorized based on meaningful groups of responses, and graphs and tables were employed to summarize relevant details of the responses to facilitate easy analysis.

### 3.7 RELIABILITY AND VALIDITY ANALYSIS

Reliability and validity are crucial in determining the accuracy of the instrument we use to gather information. Reliability refers to the consistency of responses provoked by an instrument. Validity, on the other hand, is the extent to which a research instrument measures what it intends to measure (Radhakrishna, 2007).

Scales with a coefficient alpha between 0.6 and 0.7 suggest medium reliability, while those above 0.7 suggest good reliability, according to Zikmund (2003). All the variables designed were considered to be a good measure of internal consistency, with a reliability of above 0.6 falling within the above range.

#### Reliability statistics for each variables

	Cronbach's Alpha	N of items
Planning risk management	.683	3
Risk identification	.728	3
Qualitative risk analysis	.735	3
Quantitative risk analysis	.767	3
Risk response	.646	3
Risk monitoring and control	.669	3
Project success	.848	5

Table 1 Reliability for each variables

According to Kothari (2004), content validity refers to how well a measuring instrument covers the topic under investigation. The content validity of an instrument is considered good if it includes a representative sample of the universe. To ensure the validity of this study, the instruments were checked and evaluated by professionals in the subject matter area.

### 3.8 ETHICAL CONSIDERATION

The researcher adhered to ethical and moral standards throughout the research, ensuring that all processes were acceptable. Data collection occurred with the participants' full consent, and the researcher explained the study's benefits to them to safeguard their rights. Proper citation was used, and data collection and analysis were conducted truthfully while maintaining confidentiality. Consent was obtained from the case organization and staff, and respondent identities were kept anonymous based on their agreement, fulfilling the ethical obligations of the research.

## CHAPTER FOUR DATA PRESENTATION, ANALYSIS AND INTERPRETATION

### 4.1 INTRODUCTION

In this chapter, the results obtained from CBE selected employees using a questionnaire survey are presented and analyzed. This section is divided into two main parts. The first section presents the results of descriptive analysis, while the second section presents the results of regression analysis. The presentation of the results is followed by a discussion of the information gathered from the respondents, supported by evidence from the literature.

### 4.2 RESPONSE RATE

The response rate after distributing 50 questionnaires was 45, resulting in a response rate of 90%. According to Mugenda (1999), a 50% response rate is considered adequate, 60% is good, and above 70% is rated very well. Therefore, a 90% response rate is considered very good.

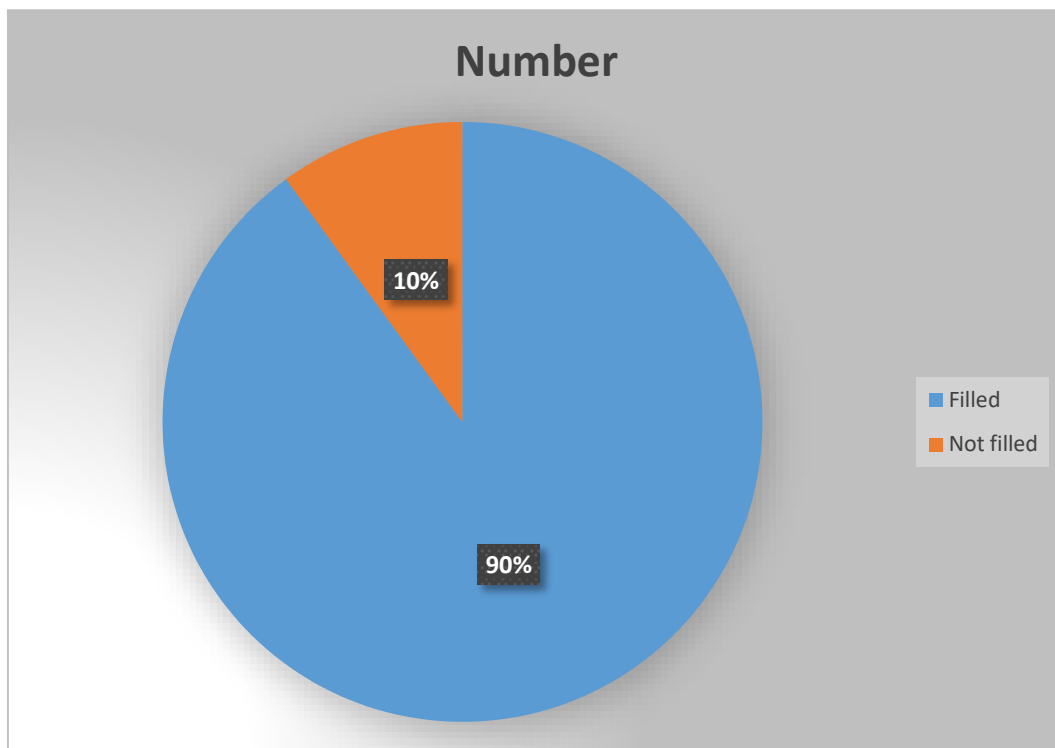


Figure 3 Response rate

#### 4.1 PROFILE OF RESPONDENTS

The required information for this study was gathered from individuals involved in projects at CBE.

Respondents characteristics	Categories	Frequency	Percentage of frequency
Gender	Male	26	57.8
	Female	19	42.2
Age	18-25	6	13.3
	26-35	33	73.3
	36-45	4	8.9
	46-55	2	4.4
Educational Background	BA/BSc	23	51.1
	MA/MSc	21	46.7
	Other	1	2.2
Position in organization	Middle management	20	44.4
	Team leader	3	6.7
	Technical expert	22	48.9
Year of experience	Less than 1 year	1	2.2
	1-5	21	46.7
	5-10	17	37.8
	Above 10 year	6	13.3

Table 2 Profile of respondents

The provided data summarizes the characteristics of respondents based on several demographic and professional categories. Here is a detailed interpretation of each category:

- ✓ The sample comprises a larger proportion of male respondents (57.8%) than female respondents (42.2%).
- ✓ The majority of respondents (73.3%) are in the 26-35 age range, indicating that most participants are relatively young adults. The 18-25 and 36-45 age groups make up smaller proportions (13.3% and 8.9%, respectively), with the 46-55 age group being the least represented (4.4%).
- ✓ The respondents are well-educated, with the majority holding either a BA/BSc (51.1%) or an MA/MSc (46.7%). Very few respondents have educational backgrounds other than these degrees (2.2%).

- ✓ The experience level of respondents varies, with nearly half (46.7%) having 1-5 years of experience. A significant portion has 5-10 years of experience (37.8%), while those with more than 10 years and less than 1 year of experience make up smaller proportions (13.3% and 2.2%, respectively).
- ✓ The sample includes a substantial number of technical experts (48.9%), followed by middle management (44.4%). Team leaders constitute the smallest group (6.7%).

The respondents are predominantly male, mostly aged between 26-35 years, and generally well-educated with at least a bachelor's degree. The sample includes a mix of middle management and technical experts, with a significant number having 1-5 years of professional experience. This distribution provides a useful overview of the demographic and professional background of the participants, which can inform the context and potential biases in the data collection and analysis processes.

## 4.2 RESULTS OF DESCRIPTIVE STATISTICS

### Descriptive statistics for dependent variables

<b>Risk planning</b>		
	Mean	Std. Deviation
Plan Activities	3.3556	1.0693
Understand approach	3.4889	0.9682
Document procedures	3.4444	1.0987
<b>Total</b>	3.4296	1.0454

Table 3 Risk planning

Overall, all three activities are rated above midpoint, with an average mean of 3.4296 indicating that the organization is 3rd level, “defined” based on its risk planning. However, the slight differences in mean scores suggest that respondents may see understanding the approach as slightly more critical compared to planning activities and documenting procedure. The variability (as indicated by standard deviations) in response shows that while there is some consensus, opinions do vary, particularly for documenting procedure. This could imply differences in organizational practices, personal experiences, or the perceived clarity and utility of documented procedure in risk planning.

<b>Risk Identification</b>		
	Mean	Std. Deviation
Determine affecter	3.6667	0.9045
Document character	3.3778	0.9837
Identify risk	3.6000	1.0313
<b>Total</b>	3.5482	0.9732

Table 4 Risk Identification

Overall, all three activities are rated above midpoint, with an average mean of 3.667 indicating that the organization is 3rd level, “defined” based on its risk identification. The mean scores suggest that determining who or what is affected by risks is considered the most critical activity, closely followed by identifying risk, and then documenting the character risks. The variability in responses (as indicated by standard deviations) is relatively moderate across all activities, with identifying risks showing the highest variability. This could imply differences in respondent’s experiences, the clarity of risk identification processes, or the perceived impact of each activity within their specific contexts.

<b>Qualitative Analysis</b>		
	Mean	Std. Deviation
Assess likelihood	3.6889	0.9492
Probability prioritizing	3.4000	1.2136
Occurrence prioritizing	3.4889	1.1989
<b>Total</b>	<b>3.5259</b>	<b>1.1206</b>

Table 5 Qualitative analysis

Overall, all three activities are rated above midpoint, with an average mean of 3.5259 indicating that the organization is 3rd level, “defined” based on its qualitative analysis.. The mean scores suggest the following order of perceived importance or effectiveness: Assessing the likelihood of risks (highest mean score), prioritizing risks based on their occurrence, and prioritizing risks based on their probability (lowest mean score, but still above midpoint). The variability in responses, as indicated by the standard deviations, shows that there is more consensus on the importance of assessing likelihood (lower standard deviation) compared to the other two activities. The higher variability in responses for prioritizing risks based on probability and occurrence indicates more diverse opinions, possibly due to differences in organizational practices, personal experiences, or the complexity of these activities.

<b>Quantitative Analysis</b>		
	Mean	Std. Deviation
Estimate effects	2.8889	0.91010
Prioritize risk	2.8667	0.78625
Estimating proximity	3.0889	0.82082
<b>Total</b>	<b>2.9482</b>	<b>0.83906</b>

Table 6 Quantitative analysis

Overall, all three activities are rated below midpoint, with an average mean of 2.9482 indicating that the organization is 2<sup>nd</sup> level, “Aware” based on its quantitative analysis. The activities related to quantitative analysis are rated lower compared to those in risk identification and qualitative analysis, with mean score close to or slightly below the midpoint. This suggests that respondents generally perceive quantitative

analysis activity as less critical or effective in risk management specifically: estimating proximity is seen as the most important or effective among the three quantitative analysis activities, though only slightly above the midpoint. Estimate effects and prioritize risk are rated similarly and below the midpoint, indicating lower perceived importance or effectiveness.

<b>Risk Response</b>		
	Mean	Std. Deviation
Develop strategies	3.2889	0.94441
Reduce Threats	3.4889	1.01404
Confirm desirability	3.3556	1.2089
<b>Total</b>	<b>3.3778</b>	<b>1.05578</b>

Table 7 Risk response

Overall, all three activities are rated above midpoint, with an average mean of 3.3778 indicating that the organization is 3rd level, “defined” based on its risk response. The mean score suggest the following order of perceived importance or effectiveness: reduce threats (highest mean score), confirm desirability (middle mean score) and develop strategies (lowest mean score among the three, but still above midpoint). The variability in responses, as indicated by standard deviations, shows that while there is some consensus, opinions vary more significantly for confirming desirability of risk responses compared to the other activities. This could imply differences in organizational practices, personal experiences, or the perceived clarity and utility of this activity.

<b>Risk Monitor &amp; Control</b>		
	Mean	Std. Deviation
Residual risk	3.3111	0.8481
Response plan	3.5556	1.0348
Effectiveness evaluation	3.3111	1.0185
<b>Total</b>	<b>3.3926</b>	<b>0.9671</b>

Table 8 Risk monitor and control

Overall, all three activities are rated above midpoint, with an average mean of 3.3926 indicating that the organization is 3rd level, “defined” based on its risk monitoring and control. The mean score suggest the following order of perceived importance or effectiveness: response plan (highest mean score) and residual risk and effectiveness evaluation (tied score). The variability in responses, as indicated by the standard deviation, shows: residual risk, lowest variability, suggesting consistent view among respondents on its importance, response plan, moderate variability, indicating some differences in opinions but still a general agreement. And effectiveness evaluation, moderate variability, similar to that of the response plan, suggesting some diversity in opinions.

## Maturity

Risk management process	Mean	Std. Deviation
Risk Planning	3.4296	0.9391
Risk Identification	3.5481	0.8231
Qualitative Analysis	3.5259	1.0310
Quantitative Analysis	2.9481	0.7246
Risk Response	3.3778	0.9629
Risk Monitor and control	3.3926	0.8327
<b>Total</b>	<b>3.3704</b>	<b>0.8856</b>

Table 9 RMM (Mean and standard deviation)

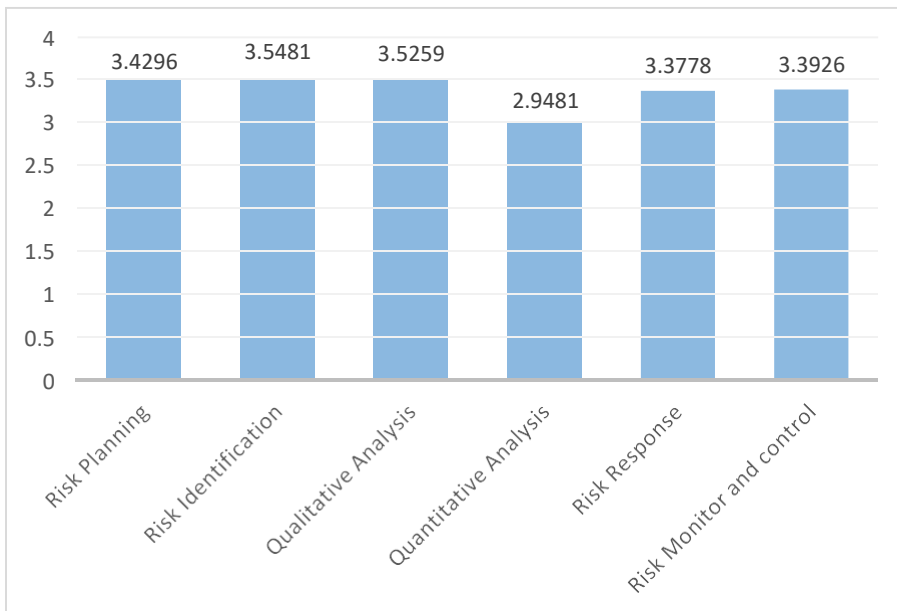


Figure 4 Independent variables/ RMM statistics

As seen in table 4 above variable with the highest mean is the “Risk Identification” (3.5481) and the variable with the lowest mean is the “Quantitative analysis” (2.9481). It show us that according to the respondents answer the organization has a “Defined” maturity level in all cases except in their quantitative analysis with “Aware” maturity level and needs to show effort in their quantitative analysis.

The standard deviation indicates how much the maturity scores deviate from the mean. A standard deviation of 0.8856 suggests moderate variability around the mean. This means that while many scores are around 3.3704, there is a reasonable spread of scores both higher and lower.

## Project success

### Descriptive statistics for Dependent variables

Project success	Mean	Std. Deviation
Time	2.2889	0.8949
Budget	3.0889	0.9492
Quality	3.4444	0.9666
Scope	3.1778	0.9837
Client Satisfaction	3.2889	1.0140
<b>Mean</b>	<b>3.05778</b>	<b>0.9617</b>

Table 10 Dependent variables /Project success statistics

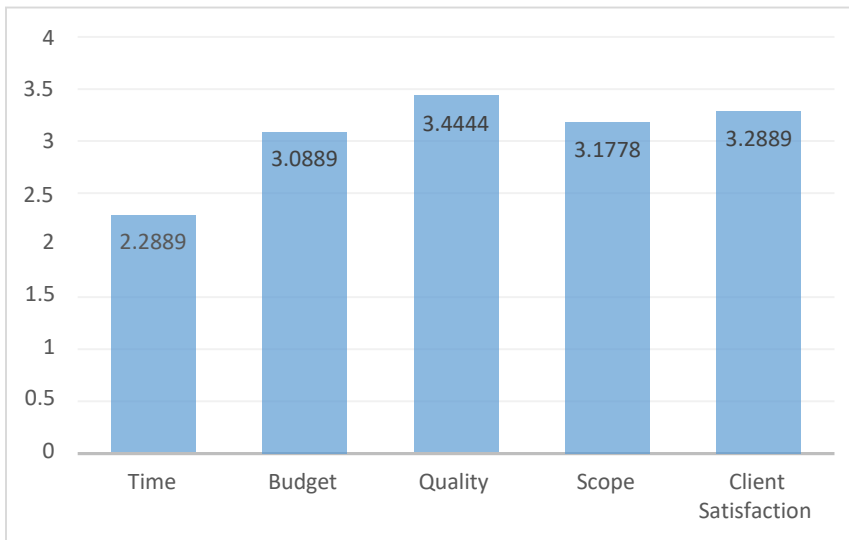


Figure 5 Dependent variable / project success statistics

As seen in the table 5 the variable with the highest mean is “Quality” with a mean of 3.4444 and the variable with the lowest mean is the “Time” with a mean of 2.2889. And the overall mean score of all metrics is 3.05778 indicating generally low performance, according to standards, across different aspects of project success.

The standard deviation here suggests that the success scores also have moderate variability. With a standard deviation of 0.9617, the scores are somewhat spread out around the mean of 3.05778, indicating that while many projects are moderately successful, there are variations with some being more and some being less successful.

### 4.3 RESULTS OF REGRESSION ANALYSIS

This study employed a linear regression model to test the causal relationship between risk management maturity and project success. The regression analysis is used to determine both the presence of a significant relationship and the direction of the relationship between these variables. Below are the various outputs of the regression analysis and their interpretations.

#### Collinearity statistics

Model	Collinearity Statistics	
	Tolerance	VIF
(constant)		
Planning	.261	3.836
Identification	.380	2.634
Qualitative analysis	.298	5.039
Quantitative analysis	.316	3.164
Response	.238	4.195
Monitoring and control	.358	2.790

a. Predictors: (Constant), Moni&Con, Identification, Quantitative, Planning, Response, Qualitative

b. Dependent Variable: project Success

#### Table 11 Collinearity

According to Field (2005), there is a concern for multicollinearity if the VIF is greater than 10 or a tolerance level below 0.2. The collinearity statistics in the current model shows the VIF values are all below 10 and the tolerance statistics are well above 0.2. In practical terms, there are no concerns about multicollinearity affecting the reliability of the regression coefficients in this model with the given data. The model's estimates for the relationship between Maturity and Success should be stable and interpretable.

## Normality test

A normality test is utilized to ascertain whether the error term follows a normal distribution.

Figure below suggests that the residual is normally distributed.

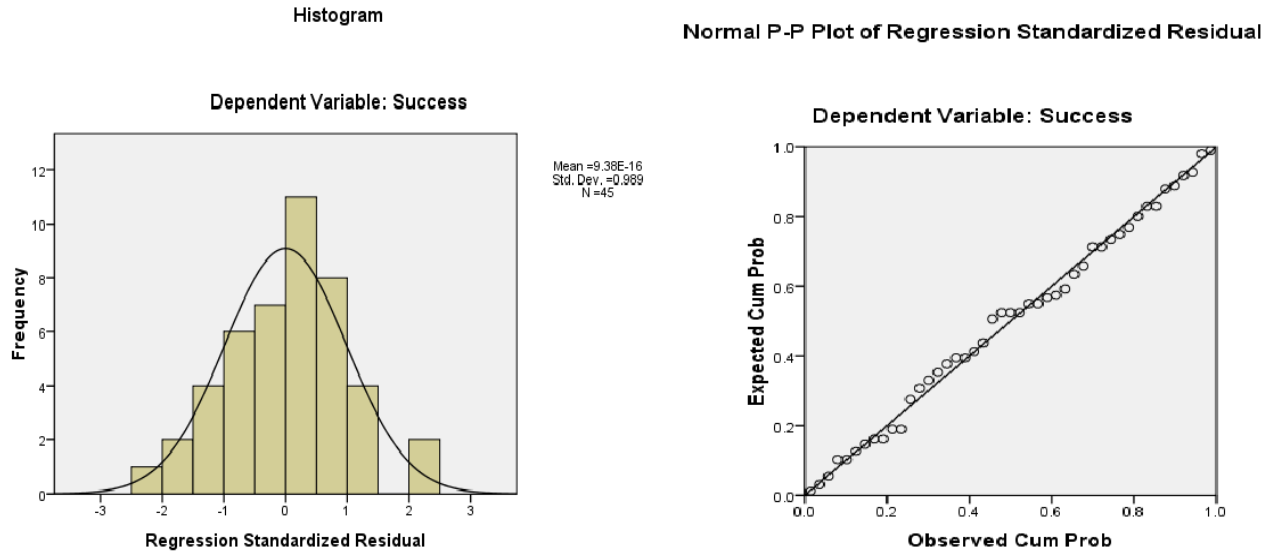


Figure 6 Histogram/ Normal P- Plot

### Histogram Details

The bars form a roughly symmetric, bell shaped curve centered around zero. This indicates that the residuals are approximately normally distributed, which is a good sign for the regression model.

The mean (centered around zero) is extremely close to zero, which is what we expect for standardized residuals, the same goes to the standard deviation (spread), where it's close to 1, expected for standardized residuals. In general, the model is likely well-fitted to the data and meets the assumptions of linear regression, such as the normality of residuals. This is positive indication for the validity of the regression analysis on the dependent variable “project success.”

### Plot Details

The points on the plot closely follow the diagonal line, which suggests that the residuals are approximately normally distributed. There are minor deviations from the line, but they are not substantial enough to indicate a serious departure from normality. In general the p-plot suggests that the regression standardized residuals for success are approximately normally distributed, which supports the appropriateness of the regression model and the validity of its assumption.

**Model fit**

The model's fit, or its ability to predict the outcome variable, is evaluated using  $R^2$ , adjusted  $R^2$  (for cross-validation), and ANOVA in the current study.  $R^2$  assesses the variance in success that can be attributed to the independent variable, maturity, while the adjusted  $R^2$  evaluates the model's cross-validation. The results are detailed in the model summary and ANOVA tables below. Assessing the model's goodness of fit is crucial, as it indicates how well the observed data aligns with the model.  $R^2$  is a key measure of goodness of fit, representing the proportion of variance in the outcome explained by the model. This means it quantifies the percentage of variation in the outcome that the model can account for.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.697 <sup>a</sup>	.485	.404	.58760	.485	5.971	6	38	.000	1.459

a. Predictors: (Constant), Moni&Con, Identification, Quantitative, Planning, Response, Qualitative

b. Dependent variable: project Success

Table 12 Model summary

The model suggests that maturity explains about 48.5% ( $R^2$ ) of the variance in success, indicating a moderate level of explanatory power. That is the remaining 51.5% of the variance is explained by the other variables not included in this study. The strong positive correlation ( $R= 0.697$ ) suggests that the relationship between maturity and success is very strong. The presence of positive autocorrelation in the residuals (Durbin-Watson=1.459) suggests that the model might benefit from adjustments to address this issue.

**Cross validation of the model**

Ensuring that the model derived from our sample accurately represents the entire population can be challenging. However, there are methods to assess how well the model predicts outcomes in different samples. One such method is cross-validation, which is measured using the adjusted  $R^2$  from the regression analysis. The adjusted  $R^2$  reflects the loss of predictive power or shrinkage and indicates how much variance in the project success variable would be explained if the model were derived from the population rather than just the sample. A value close to the  $R^2$  suggests that the model generalizes well.

The results of the current study show an R<sup>2</sup> of 0.485 and an adjusted R<sup>2</sup> of 0.404, with a difference of 0.08 (approximately 8%). This shrinkage indicates that if the model were derived from the population instead of the sample, it would explain about 8% less variance in the outcome. This level of shrinkage is typically acceptable in many practical applications. It indicates that while there is some loss in explanatory power, the model still performs reasonably well on the new data.

**ANOVA<sup>b</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.369	6	2.062	5.971	.001 <sup>a</sup>
	Residual	13.120	38	.345		
	Total	25.490	44			

a. Predictors: (Constant), Moni&Con, Identification, Quantitative, Planning, Response, Qualitative

b. Dependent Variable: projectSuccess

Table 13 ANOVA

The F value 11.718 of the ANOVA section of the table above was also significant (0.001), implying that the impact of the joint of the RMM is significant at 99% significance level that is the relationship between the RMM and maturity is not due to random chance. And suggests that project maturity is significant predictor of project success. This indicates that the model is the best fitted at all the conventional levels of significance.

**Coefficients of the multiple regression analysis**

The current study employed linear regression models in examining the relationship between RMM and project success. To this end, the equation used in the study was;

$$PS = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$$

Where: PS= project success

X1= Planning dimension of RMM

X2= Identification dimension of RMM

X3= Qualitative dimension of RMM

X4= Quantitative dimension of RMM

X5= Response dimension of RMM

X6= Monitoring and control dimension of RMM

RMM= risk management maturity

e= error term,

$\beta_0$ = constant, term

Project success is the dependent variable,  $\beta_0$  is the constant and  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5,$  and  $\beta_6$  are the coefficients of the independent variables and e is the error term.

**Coefficients<sup>a</sup>**

Model	Unstandardized coefficient		Standardized coefficient	T	Sig.
	B	Std. Error	Beta		
(constant)	1.04	.088	.	.047	0.00
Planning	.443	.173	.371	2.561	.014
Identification	.428	.161	.384	2.662	.011
Qualitative	.458	.162	.404	2.831	.007
Quantitative	.538	.167	.450	3.230	.002
Response	.629	.155	.535	4.055	.000
Monitor and control	.579	.143	.534	4.040	.000

a. Predictors: (Constant), Moni & Con, Identification, Quantitative, Planning, Response, Qualitative

b. Dependent variable: project Success

Table 14 Coefficients

The standardized beta coefficient column shows the contribution that an individual variable makes to the model. The beta weight is the average amount the dependent variable increases when the independent variable increases by one standard deviation (all other independent variables are held constant). As these are standardized coefficients (Beta) of the independent variables in the regression equation following model is specified.

$$\text{Projects success} = 1.04 + 0.371X_1 + 0.384X_2 + 0.404X_3 + 0.450X_4 + 0.535X_5 + 0.534X_6 + e$$

As table 9 confirms in the regression equation above the independent variable, RMM, has a significant impact on the dependent variable, project success. In the following discussion both the significance and direction of influence the variable has on the dependent variable is discussed.

**Planning and Project success**

The relationship between Project successes with planning is significant at 95% with sig value of 0.014. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient (beta=0.371) showed that planning affect project success positively. That means risk planning has a significant and positive impact on project success.

### **Identification and project success**

The relationship between Project successes with Identification is significant at 95% with sig value of 0.011. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient ( $\beta=0.384$ ) showed that qualitative analysis affect project success positively. That means planning has a significant and positive impact on project success.

### **Qualitative Analysis and project success**

The relationship between Project successes with planning is significant at 95% with sig value of 0.007. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient ( $\beta=0.404$ ) showed that planning affect project success positively. That means risk planning has a significant and positive impact on project success.

### **Quantitative analysis and project success**

The relationship between Project successes with Quantitative analysis is significant at 95% with sig value of 0.002. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient ( $\beta=0.450$ ) showed that planning affect project success positively. That means risk planning has a significant and positive impact on project success.

### **Risk response and project success**

The relationship between Project successes with risk response is significant at 95% with sig value of 0.000. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient ( $\beta=0.535$ ) showed that risk response affect project success positively. That means risk planning has a significant and positive impact on project success.

### **Monitoring and control and project success**

The relationship between Project successes with planning is significant at 95% with sig value of 0.000. Therefore, the alternative hypothesis that stated the two variables have significant and positive relationship is supported. The standardized coefficient ( $\beta=0.534$ ) showed that planning affect project success positively. That means risk planning has a significant and positive impact on project success.

The closer the absolute value of 1 the coefficient is, the stronger the effect of that independent variable on the dependent variable and the closer the coefficient is to 0, the weaker the effect of that independent variable (Field, 2005). From the variables investigated in the study, risk response and monitor and control, respectively, have the highest influence on project success followed by quantitative and qualitative analysis, respectively again followed by identification and planning. which has moderate positive influence on project success.

## **Hypothesis Testing**

To test the hypotheses, we examine the provided regression results for the independent variable on project success.

**Hypothesis H1:** Planning has a significant and positive effect on project success

Referring to the table 9 the relationship between planning and project success is significant at 95% with a sig value of 0.014. The standardized coefficient (beta 0.371) showed that planning affect project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

**Hypothesis H2:** Identification has a significant and positive effect on project success

Referring to the table 9 the relationship between identification and project success is significant at 95% with a sig value of 0.011. The standardized coefficient (beta 0.384) showed that identification affect project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

**Hypothesis H3:** Qualitative analysis has a significant and positive effect on project success

Referring to the table 9 the relationship between identification and project success is significant at 95% with a sig value of 0.007. The standardized coefficient (beta 0.404) showed that qualitative analysis affect project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

**Hypothesis H4:** Quantitative analysis has a significant and positive effect on project success

Referring to the table 9 the relationship between quantitative analysis and project success is significant at 95% with a sig value of 0.002. The standardized coefficient (beta 0.450) showed that quantitative analysis affect project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

**Hypothesis H5:** Risk response has a significant and positive effect on project success

Referring to the table 9 the relationship between Risk response and project success is significant at 95% with a sig value of 0.000. The standardized coefficient (beta 0.535) showed that risk identification affect project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

**Hypothesis H6:** Monitoring and control has a significant and positive effect on project success

Referring to the table 9 the relationship between monitoring and control and project success is significant at 95% with a sig value of 0.000. The standardized coefficient (beta 0.534) showed that identification affect

project success positively. Therefore, the alternative hypothesis that stated the two variable have significant and positive relationship is supported.

## CHAPTER FIVE SUMMARY, CONCLUSION AND RECOMMENDATION

This study aims to explore how risk management maturity influences project success. It begins by defining risk, risk management, and risk management maturity, followed by an explanation of project success and how risk management maturity affects it. The study then examines the relationship between risk management maturity and various dimensions of project success. Additionally, this chapter provides a summary of the major findings, followed by conclusions and recommendations.

### 5.1 SUMMARY

- The average Project Risk Management Maturity score among the participating organizations is 3.3704. This places the surveyed organizations at maturity "level 3," according to theoretical standards. This level indicates that their risk management processes are recognized, defined, and accepted as organizational standards, having been developed and documented. With the maturity model rating scale ranging from 1 to 5, this suggests there is significant room for enhancing project risk management practices. Williams and Kwak (2000) recommend that companies should focus more on risk management, as it is the least mature of all PMBoK knowledge areas. The overall standard deviation of 0.8856 suggests that, in general, there is moderate variability in the effectiveness of the risk management process across projects.
- Regarding the project success, according to Zaidation and Bagheri's (2009), a mean score below 3.39 is considered low, a mean score from 3.40 and 3.79 is moderate and mean score above 3.80 is considered high. And the organization with a score of 3.05778, exhibits "low level" indicating that there is room for improvement in achieving project success. The overall standard deviation of 0.9617 suggest moderate variability in the success metrics across different projects.
- About the inferential statistics we have a sig value of .014 and a beta value of .371 for planning risk management, we have a sig value of .011 and a beta value of .384 for Risk Identification, we a sig value of .007 and a beta value of .404 for Qualitative Risk analysis, a sig value of .002 and beta value of .450 for Quantitative risk analysis, a sig value of .000 and a beta value of .535 for risk response and finally a sig value .000 and a beta value of .534 for Risk monitoring and control.

The data supports the hypotheses (H1, H2, H3, H4, H5, H6), demonstrating that each risk management activity—Planning, Identification, Qualitative analysis, Quantitative analysis, Risk response planning, and Monitoring and control—has a significant and positive effect on project success, as indicated by positive coefficients and p-values below .005. Therefore, enhancing risk management maturity can improve project success.

## 5.2 CONCLUSION

The research aimed to explore how the maturity of project risk management impacts project success. To tackle this issue, multiple objectives were set. This section now offers a conclusion made from the study's findings regarding these objectives.

- The surveyed organizations are at maturity "level 3" for project risk management, meaning their processes are recognized, defined, and accepted as organizational standards. However, there is still significant room for improvement. Additionally, the moderate variability in the effectiveness of these processes suggests a need for more consistent implementation and enhancement across projects. The organization exhibits a low level of project success, indicating room for improvement in achieving better outcomes. Additionally, there is moderate variability in success metrics across different projects, suggesting the need for more consistent project success strategies. The inferential analysis reveals a significant, positive effect of project risk management maturity dimensions on project success. This implies that increasing project RMM could positively affect project success. In practical terms, If you are looking at how RMM might influence success (or vice versa), this data supports the idea that these 6 dimensions are positively related in a meaningful and statistically significant way with project success. The inferential statistics indicate that planning risk management, risk identification, qualitative risk analysis, quantitative risk analysis, risk response, and risk monitoring and control all have a significant positive impact on project success. The strength of these relationships varies, with risk response and risk monitoring and control showing the strongest effects.

### 5.3 RECOMMENDATION

Based on the research findings and conclusions above, the following recommendations are suggested:

- Based on the study's results, the inferential analysis reveals a significant, positive impact on project success. Therefore, managers should pay attention to this aspect, as increasing project risk management maturity can enhance project success.
- Based on the study's findings, the organization's risk management maturity is classified as level 3, defined. To advance from level 3 to level 4, Hilson (1997) identifies several actions and challenges, as outlined below.

Actions to assist the level 3 organization to in its progress towards level 4 are:

- Facilitate effective learning from experience by conducting regular reviews and value engineering of the risk management process to ensure its continued effectiveness.
- Revise and bolster the risk process as needed, which may involve investing in new tools, methodologies, and training for staff.
- Explore innovative applications of the risk process beyond current ones. Aim to adapt and implement risk management across all business activities.
- Foster a "Total Risk Management" culture through all available channels, encouraging staff to embrace risk awareness and utilize risk techniques to evaluate and address potential threats. Embed risk thinking into the company's culture.
- Incorporate risk as a standard criterion in all decision-making processes.
- Recognize and address instances of risk fatigue, where staff may be losing interest in or momentum with the risk management process. Employ periodic re-launch campaigns to rejuvenate the process, highlighting achievements, sharing improvement metrics, and rewarding effective risk management.
- Regularly provide refresher training to ensure skills remain up-to-date.
- Explore the option of leveraging external risk expertise to expand the use of risk management into new areas within the organization or to maintain momentum and implement changes effectively.

Threats that are likely to be encountered when progressing to level 4 are listed below:

- A loss of momentum could result in an inability to maintain the required level of engagement, potentially reducing the quality of risk support. This could undermine the credibility of the risk process, portraying it as a transient management fad.
- Failure to update the risk process in response to evolving business needs or market changes could render it outdated and less relevant to the organization's operations.
- Neglecting ongoing investment in the risk process could lead to reduced relevance or capability, with tools becoming outdated, techniques becoming obsolete, and staff not receiving necessary updates.
- Fostering in-house expertise might create a perception that risk management is a specialized discipline handled solely by experts, potentially reducing commitment and ownership from others within the organization.
- ❖ Having demonstrated that Risk Management Maturity positively impacts project success, organizations can utilize the mentioned strategies to elevate their maturity level, subsequently enhancing their project success prospects.
- ❖ As indicated in Table 4, all the dependent variables have moderate scores, around 3.00, suggesting room for improvement in all areas. Quantitative analysis has the lowest mean, followed by risk management planning. Thus, it is recommended that the organization focuses on improving all variables, with particular attention to these two.
  - Based on the study made it was concluded that the project success level was low. Which shows that the organization should work on their project success .As shown in Table 5, all dependent variables have scores around 3.00 except for Time, which has a lower score of 2.4651, other variables. Therefore, it is recommended that the organization focus on completing projects on time and as planned, by focusing on strategies to enhance project scheduling and time management practices, as this is the weakest area. They should also address the high variability in client satisfaction by standardizing process and ensuring consistent quality in client interaction. Again they need to continue to emphasize quality management practices, as this is a strength in project success. And finally, they need to ensure consistent adherence to project

scope and budget through better planning and monitoring practices to reduce variability in these areas.

#### RECOMMENDATIONS FOR FURTHER RESEARCH

- Further research should include other banks so that generalizability could be made.
- Again further research should broaden its scope to include a diverse range of organization types, not only banks, thereby expanding the applicability of findings. On the other hand, focusing on a single organization could improve the accuracy of conclusions about the relationship between risk management maturity and project success by eliminating the impact of varying organizational factors.
- Additionally, future research should explore into detailed analyses of specific projects as well as other variables that represents risk management maturity and project success.

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## APPENDIX

### Questionnaire

**Addis Ababa University School of Commerce**

**Post Graduate Program**

**Department of Project Management**

#### Dear Respondents

Dear Participants, I am student of MA (PM) at Addis Ababa University, School of Commerce. I am conducting a research on **“The Impact of Risk Management Maturity on project success in case of Commercial Bank of Ethiopia”**

**Confidentiality:** I want to assure you that this research is solely for academic purposes authorized by AAU. Your ideas and comments are highly valued and kept confidential. To ensure a conducive environment for your free and genuine responses, you are not required to provide your name. The quality of the results of this research depends on the accuracy of the information you provide. I extend my deepest gratitude for your unreserved cooperation in filling out the questionnaire.

Eden Belachew

Email: [eden.tufa20@gmail.com](mailto:eden.tufa20@gmail.com)

#### General Guideline:

**5= strongly agree**

**4= Agree**

**3= Neutral**

**2= Disagree**

**1= strongly agree**

**Section 1: Background Information**

1.1. Gender

1. Male       2. Female

1.2. Age

1. 18 - 25       3. 36 - 45       5. Above 56   
2. 26 - 35       4. 46 - 55

1.3 Educational Background

1. Diploma     2. BA/BSc     3. MA/MSc     4. Ph. D

If other, please specify.....

1.4. Position in the organization

1. Top Management   
2. Middle Management   
3. Team Leader   
4. Project Manager   
5. Technical Expert   
6. If other, please specify.....

1.5. Year of Experience

1. Less than 1 year       3. 5 to 10 year   
2. 1 to 5 year       4. Above 10 year

**Section 2: Risk management maturity Level**

The following statements relate to the maturity level of risk management. Please check only the boxes that indicate your agreement based on your participation in projects.

<b>Projects under your division;</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Determines the approach for planning the project's risk management activities.					
2. Allocates time to comprehend the organization's and the sponsor's strategies for risk management.					
3. Records the protocols for managing risk throughout a project.					
4. Identifies the risks that are likely to impact a project					
5. Records the details of each risk.					
6. Discovers additional risks as the project progresses.					
7. Evaluates the probability and impact of identified risks.					
8. Ranks risks according to their likelihood of occurring.					
9. Ranks risks according to their potential impact if they occur.					
10. Quantitatively assesses the					

impact of risks on project objectives.					
11. Ranks risks according to their projected impact on project goals.					
12. Assesses the likelihood of when a risk may occur.					
13. Creates alternatives and establishes approaches to decrease adverse risks and maximize beneficial risks.					
14. Takes actions to mitigate risks and achieve project goals.					
15. Verifies the necessity of Executing the planned actions.					
16. Tracks residual risks.					
17. Implements risk response plans.					
18. Assesses the effectiveness of risk strategies throughout the project's duration					

**Section 3: Project success**

Below are statements about project success and its relation to risk management maturity. Please indicate your level of agreement using the provided scale.

<b>Project success</b>						
No	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	Projects within your division are finished on or ahead of schedule.					
2	Projects within your division are completed within the allocated budget.					
3	Projects within your division are completed and meet the quality standards as well as customer and business requirements.					
4	Projects within your division are completed according to the established scope.					
5	Projects within your division are completed to the satisfaction of the client.					

*This concludes the questionnaire.*

*Thank you once more for your sincere and truthful answers!*

