**OPERATIONAL RISK MANAGEMENT AT PLANNING PHASE AND PROJECT PERFORMANCE IN TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF PROJECT MANAGEMENT OF THE OPEN UNIVERSITY OF TANZANIA**

**2017**

# CERTIFICATION

The undersigned, certify that I have read and hereby recommend for acceptance by the Open University of Tanzania, a dissertation titled; “Operational Risk Management at Planning Phase and Project Performance in Tanzania”, in partial fulfillment of the requirements for award for the Degree of Master of Project Management of the Open University of Tanzania.

…………………………………

Dr. Macha Salvio

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Date

# DEDICATION

To my favorite uncle, The Late Mr. Joel Anosisye Mbiligwanongwa Mwaipela (1943-2016), for the big part that you played in my life and all that you did that got me where I am and made me the person I am proud to be today. You had too big a heart, the symbol that family does not end with blood. May your legacy and love live on and I pray I keep making you proud ……… until we meet again!

# ACKNOWLEDGEMENT

The successful completion of this research would have been impossible without the support advice, assistance and encouragement of others. I extend my sincere gratitude and appreciation to those who in one way or another were involved in this study to the end. As it is difficult to mention everyone, I should say that all of you deserve my sincere gratitude.

I would like to express my sincere and deepest appreciation and gratitude to my supervisor, Dr. Salvio Macha for his guidance, encouragement and constructive criticism that made it possible for this study to be a success. My gratitude is also extended to Eliezer Brown Mwakalapa and Anna Maria Mwamyalla for being there during my research period and providing me with assistance in this study. Even when far away and busy, you still made time for me and that means a whole lot.

To my beloved parents, Mr. & Mrs. Brown Kenneth Mwakalapa, the challenges I get when I look at you, that makes me push more to get to the highest point just to make you proud, played an enormously big part for this study to be completed. I would also like to acknowledge my appreciations to my lovely friends Gillian, Ronica, Perpetua, Pierre and Aziz and to my cousins Vaiko Mwaipela and Makulilo Dyegula, for their moral and material support in completion of this study.

My sincere gratitude goes to all Insurance Stakeholders and their staff for their permission to conduct my research and their material support and advice in making this study a success. Last and foremost sincere appreciation to My Father, the Almighty God, creator of heaven and earth, His son Jesus Christ and the Holy Spirit for having me to this second and providing me with the capability of completing this study and making it a success.

**ABSTRACT**

Projects are unique entities that are conducted within a specific start-point and a definite end-point and time constraint is one among its characteristics, because of its uniqueness, projects tend to face a lot of risks as they are unpredictable and inevitable hence the adoption of risk management throughout the project life cycle so that the objectives are achieved. This research intends to examine the relationship between Operational Risk Management at the planning phase and project performance in Tanzania, specifically in the Insurance industry. The objective of the study was to investigate the extent of the risk management practices at planning phase and the effect of these practices on project performance. The study targeted insurers, project managers, actuaries, and regulatory authorities in Tanzania and key clients with major investments in the insurance industry. The study used both qualitative and quantitative methods of data collection. The research project indicated projects in Tanzania had some input from qualified insurers. While the study indicated that risk management was widely practiced at 92%, the process was mainly informal. It is recommended a formal and structured risk management practice during project planning and with the involvement of insurance professionals and end users. The researcher recommends that there is need for continuous development seminars in risk management for all insurance professionals in Tanzania and especially those in insurance projects planning and procurement departments of both private and government developers. This research further recommends that qualified project managers who are either insurers or actuaries be included in all insurance projects. End users and beneficiaries should be involved in needs identification at the early stages of a project.

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# LIST OF ABBREVIATIONS

ACWP Actual Cost for Work Performed

BCWP Budget Cost for Work Performed

BCWS Budget Cost for Work Schedule d

EVM Earned Value Management

KPI Key Performance Indicators

KPMG Klynveld Main Goerdeler & Peat Marwick

ORM Operational Risk Management

PMI Project Management Institute

PMBoK Project Management Book of Knowledge

PMO Project Management Office

PWC Price Waterhouse Coopers

QCBS Quality and Cost-Based Selection

QBS Quality Based Selection

RMA Risk Management Association

ROI Return On Investment

WBDG World Building Design Guide

# CHAPTER ONE

# 1.0 INTRODUCTION

This chapter covers the background of the study, statement of the problem, the objectives of the study, research questions, significance of the study and organization about the proposed topic.

## Background of the Research Problem

Cost and schedule performance are the primary measures of a project’s success. A project is said to be successful if it is completed within the planned cost and time. Developing countries are faced with the problem of scarce project financial resources. Insurance has an important role in the economy of many countries and especially developing countries. The insurance industry contributes to the GDP and employment rate of many nations and for this reason it is considered vital for the economic development of any nation. Most insurance projects in Tanzania are faced with cost variations and completion delay problem.

Carvalho and Junior, (2014), conducted a study that aimed to elucidate the relationship between risk management and project success, considering the contingent effect of project complexity. They involved 263 projects distributed among eight (8) industries. The fieldwork involved interviews with project managers and risk managers and an analysis of internal company documents about the projects’ performance. It was found that the soft side of risk management appears most prominently and explains 10.7% of the effect on project success and it supports the hard side, since they found a significant correlation that explains 25.3% of the effect on the hard side.

This research aims to assess the relationship between risk management at the planning phase and project performance in Tanzania, how risk management assists projects in reaching their objectives or goals. A study was conducted with project managers from both private and public sector projects that captured different perspectives and specific observations on Operational Risk Management Techniques on project performance activities. Emergent issues on project performance policy, strategy and decision‐making processes were synthesized into a framework for analyzing factors associated with managing different risks that occur in projects.

This research will contribute to the knowledge on understanding operational risk management techniques and tools at the planning project level, particularly highlighting the implications of project performance activities in the insurance sector in Tanzania and other nations too. The framework will provide an aid to research and an *aide memoire* for managers considering adopting the best project performance activities in running their projects as it has provided a base for determining the best effective operational risk management techniques to be adopted throughout the project.

Risk and uncertainty can potentially have damaging consequences for the insurance projects. Therefore, risk analysis and management continue to be major features of the project management of insurance projects in an attempt to deal effectively with uncertainty and unexpected events and to achieve project success. Project Management Institute defines project risk as an uncertain event or condition and that the occurrence has positive or negative effect on at least one project objective, such as time, cost, scope, or quality (PMI, 2008). Risk management is one of the nine knowledge areas propagated by the Project Management Institute (PMI, 2008). Risk management in the insurance project management context is a comprehensive and systematic way of risk identification, risk analysis and risk response with a view to achieving the project objectives (ICE, 2005).

The most successful project managers have mastered the art of managing risks at each project level. These important skills are not easily acquired and often need years of experience to cultivate. Meeting the project’s objectives and exceeding the stakeholders’ expectations has led to the need of understanding the risks that might be faced in project performance and effective ways of managing them. This report is intending to prove that it is important to adopt the most effective risk management techniques at the planning stage for projects in Tanzania to achieve the expected project performance. The completion and success of these projects therefore, depends highly on the techniques adopted throughout the project to mitigate or avoid negative risks.

Mitigating risk by lessening their impact is a critical component of risk management. Implemented correctly, a successful risk mitigation strategy should reduce adverse impacts. In essence a well-planned and properly administered risk mitigation strategy is a replacement of uncertain and volatile events with a more predictable or controlled response (Chapman & Ward, 2007). The ability to govern or to set up control mechanisms for costs, schedule and quality in an insurance project reduces rapidly as you move through the project lifecycle. The control activities at the planning stage are risk profiling, insurers and actuaries selection process, insurers and actuaries contract review, environment selection and validation, need identification and validation and preliminary budget and schedule development.

ISO 31000 is a family of standards relating to risk management codified by the International Organization for Standardization. ISO 31000:2009, Risk management Principles and guidelines, provides principles, framework and a process for managing risk. It can be used by any organization regardless of its size, activity or sector. Using ISO 31000 can help organizations increase the likelihood of achieving objectives, improve the 6 identification of opportunities and threats and effectively allocate and use resources for risk treatment ("ISO 3100:2009," 2009). ISO 31000 defines risk as the effect of uncertainty on objectives, which means that the effect may be either positive or negative.

## Statement of the Research Problem

Success in insurance projects is indicated by its performance in the achievement of project time, cost, quality, safety and environmental sustainability objectives. Despite the efforts by all players in the insurance industry, many insurance projects in Tanzania and generally in the region and the world run a high risk of poor performance by being well over budget and significantly late. The insurance industry generally has poor cost and schedule performance. The industry has a reputation for time and cost overruns. One of the reasons of the bad performance is that the insurance industry is one of riskiest of all business types. While some degree of poor cost and time schedule performance is inevitable in these projects, it is possible to improve risk management strategies to minimize their negative impact and thus improve the project performance. This study aims at determining the relationship of risk management practices at the planning stage to the insurance project performance. PriceWaterhouseCoopers (PWC), (2009) entails that recent research shows that many companies fail to connect risk and performance in the course of basic performance management. The market is recognizing now more than ever, the natural linkage between risk and corporate performance, motivating companies to integrate the management of both in a more focused way.

Srinivasan, Gallupe and Wolf, (2011), states that, “Even highly skilled and experienced project managers and other decision makers face serious difficulties trying to achieve acceptable project performance. We consider risk and performance as two sides of the same coin and argue that, with a closer link between performance evaluation and the assessment of project risks, more such internet-based projects might be evaluated positively” Alan Greenspan, Chairman of the Federal Reserve American Bankers Association, during the Annual Convention on October 5, 2004 said, “It would be a mistake to conclude that the only way to succeed in banking is through ever-greater size and diversity. Indeed, better risk management may be the only truly necessary element of success in banking.”

Carvalho and Junior, (2014), conducted a study that aimed to elucidate the relationship between risk management and project success, considering the contingent effect of project complexity. They involved 263 projects distributed among eight (8) industries. The fieldwork involved interviews with project managers and risk managers and an analysis of internal company documents about the projects’ performance. It was found that the soft side of risk management appears most prominently and explains 10.7% of the effect on project success and it supports the hard side, since they found a significant correlation that explains 25.3% of the effect on the hard side. The role that risk management plays in the performance of projects in Tanzania, has led to many researchers to be interested in studying it. Despite a wealth of empirical works on the subject, still operational risk management remains one of the greatest challenges that many companies face.

Nevertheless, at most, all studies have been done beyond Tanzanian boundaries creating a geographical and cultural gap that this proposal seeks to fill. Indeed, insurance is considered a service industry which plays a key role of covering different risks in the country. Their effective project performance is responsible of producing future projects that are needed in developing a country like Tanzania. As noted earlier, proper risk management techniques are critical throughout the project life cycle, therefore it is important to know its importance and how it affects performance of the project.

The risks at insurance project planning stage include poor scope definition, poor estimating and development of a budget based on incomplete data. The risk management practices required at this stage include risk profiling and identification, the insurers and actuaries selection process, insurance environment review and validation, needs identification and validation and preliminary budget and schedule development (Wallace & Blumkin, 2007, p. 4). Risk profiling involves finding an optimal investment risk by considering the risk required, risk capacity and risk tolerance of the client. Because of all these, the researcher was motivated to study operational risk management at the planning stage and establish whether it is related to project performance. This was done by exploring the effects of operational risk management at the planning phase on project performance. The outcome of the study developed a cause of action for the insurance industry to come up with adequate techniques and tools for effective risk management for different projects so that performance is gained at an expected level. In addition, the research intended to bridge the knowledge gap by adding some more useful related information on the subject.

## Research Objectives

### General Objective

To determine the relationship between operational risk management at the planning phase and project performance on Insurance projects in Tanzania.

### Specific Objectives

1. To identify the level of importance attached to risk identification practices during the planning stage in insurance projects in Tanzania.
2. To examine and determine the effects of insurers and actuaries selection, environment selection and validation and the needs identification and validation processes on project performance.
3. To identify the effect of preliminary budget and schedule on project performance.

## Research Questions

These are statements in questions formed based on the main and specific objectives, this study will be guided by the following questions;

### General Research Questions

What is the relationship operational risk management at the planning phase and performance of Insurance projects in Tanzania?

### Specific Research Questions

1. What is the level of importance attached to risk identification practices during the planning stage in insurance projects in Tanzania?
2. What are the effects of insurers and actuaries selection, environment selection and validation and the needs identification and validation processes on project performance?
3. How does the preliminary budget and schedule affect the perception of scope and schedule performance?

## Significance of the Proposal

1. Project performance is what determines if the project undertaken was successful or not. Therefore, it is very important for projects to reach their objectives and exceed or meet the ones for stakeholders. This then entails the importance of this research as it provides a way through which projects can perform effectively and meet its objectives.
2. This report provides the most effective operational risk management techniques that can be adopted by project managers and stakeholders so that the best results for the projects are achieved. This is because one of the common characteristics of projects is that they are unique and uncertain, so risks become common, inevitable and inherent in any undertaken project.
3. The research report also provides a framework that shows how effective risk management techniques can help to achieve the best project performance and hence reaching or meeting the objectives of the project.
4. The results of this research are expected to indicate the correlation between risk management practices during the planning stage and the insurance project performance. The planning stage provides the greatest opportunity in the project life cycle to govern and control scope, costs and schedule through sound risk management practices (Wallace & Blumkin, 2007).

This ability decreases rapidly as you move through the project life cycle. It is expected that these results will inform insurance industry professionals and clients in Tanzania on the benefits of risk management at the planning stage on the projects performance. Initial cost and schedule estimates highlight potential bottlenecks and high cost items. However, these estimates are often established on the basis of incomplete information. Poor scope definition leads to overdesign, scope creep, and cost and schedule variations. Risk identification can inform insurance decisions and provide input into creating risk-adjusted or “probabilistic” cost and schedule estimates. It is expected that the results of this study will inform policy makers and property developers on the benefits of the insurers/actuaries selection process and the environment selection and validation process at the project planning stage. It is expected that this study will lead to the development of a policy to involve qualified project managers who are either insurers or actuaries on the needs identification and validation process and in the preparation of the preliminary budget and schedule that is submitted to the concerned Ministry for budgetary allocation.

## Scope of the Study

The study focused on the relationship operational risk management at the planning stage and project performance in insurance projects in Tanzania. The research measured cost and schedule performance in insurance projects. The respondents were the professionals in the insurance industry working in Tanzania, selected major developers and the industry regulators. The research targeted ongoing and complete projects.

## Organization of the Study

This study is composed of three chapters, of which, chapter one is on Introduction which includes; the background of the research problem, the statement of the research problem, the research main and specific objectives, the research main and specific questions, the justification or significance of this study and lastly the organization of the entire study entailing the summary of what each chapter contains.

Chapter two consists of the Literature Review for the study which includes; the general overview, the conceptual definitions of the study, the theoretical literature review, the empirical literature review, the research gap and the conceptual and theoretical frameworks of the study. Chapter three is on the Research Methodology that consists of the general overview, the research philosophy or approach, the area of the research population, sampling design and procedures, the methods of data collection and lastly, data processing and analysis of the study. Chapter four is on the interpretation, analysis and discussion of the findings and finally chapter five is on the summary of the findings, conclusion and recommendations.

CHAPTER TWO

# 2.0 LITERATURE REVIEW



## Overview

This part entails the findings done by other scholars or researchers on this study concerned. It consists mainly of theoretical literatures which are the previous findings done about this study and the empirical literatures which are the present literatures that reviews the recent related researches and materials such as books, journals, periodicals and other published materials which are written about this study.

## Conceptual Definitions

### Operational Risk Management

There are different definitions of operational risk management. According to Wikipedia, operational risk management is a continual cyclic process which includes risk assessment, risk decision making and implementation on risk controls, which results in acceptance, mitigation or avoidance of risk. Operational risk is the risk of a change in value caused by the fact that actual losses, incurred for inadequate or failed internal processes, people and systems, or from external events (including legal risk), different from the expected losses. The Risk Management Association (RMA) has defined operational risk as the risk of loss resulting from inadequate or failed internal processes, people and systems, of from external events, but it is better viewed as the risk arising from catastrophic events like hurricanes, computer hacking, external fraud and so to mention. Risk Management is an ongoing process of providing the necessary information to manage risk during the project lifecycle, thus creating conditions such as; maximizing the beneficial results of positive events, minimizing the adverse consequences of negative events. To achieve all these, there are four main processes through which risks are managed in a project: Risk identification, Risk quantification or evaluation, Risk response development and Risk response control. There are four types of risks in projects; scope risks which tend to occur when the initial intended scope of the project becomes impossible, evolves, grows or changes due to project internal or external factors. Second type is schedule risks that occur when the timeline planned or approved gets out of control. Cost risks are those where actual cost performance does not stick to the approved budget and the project becomes a runaway. The last type is quality risks which occur when the final project product is delivered but it does not correspond to the customer expectations and specification. Risks are uncertain activities that can occur to any project at any time, they are inherent to any project work. Operational risk management is the qualitative assessment of operational risks.

### Project Performance

Project performance is the review of the efficiency and importance of a given project. Project performance management tends to review the efficiency of the project throughout its life cycle. There are many factors that determine whether a project is a success, varying based on the initial goals or objectives of the project.

## Theoretical Literature Review

Operational Risk Management (ORM) has three levels, which are; In-depth Risk Management, which is used before a project is implemented, when there is plenty of time to plan and prepare. Examples of In-depth risk management include; training, drafting instructions and requirements and acquiring personal protective equipment. Second level is Deliberate Risk Management which is used at routine periods through the implementation of a process or project. Examples are; quality assurance, on-the-job training, safety briefs, performance reviews and safety checks. The third and last level is Time Critical Risk Management, which is used during operational exercises or execution of tasks. It is defined as the effective use of all available resources by individuals, crews and teams to safely and effectively accomplish the mission or task using risk management concepts when time and resources are limited. Examples of tools used include execution checklists and change management. This requires a high degree of situational awareness.

Operation Risk Management has four (4) principles which are;

1. Accept risks when benefits outweigh the cost.
2. Accept no unnecessary risks.
3. Anticipate and manage risks by planning.
4. Make risk decisions at the right level.

Operational Risk Management (ORM) tends to bring about some benefits to the project at hand when all measure and precautions are adhered to. These benefits of operational risk management are such as;

1. Reduction of operational costs throughout the project life.
2. It also lowers compliance or auditing costs as the risks are managed well.
3. It helps to reduce exposure to future risks.
4. According to Stacey Barr, (2015), when we think about measuring the performance of a project, it is not really the same as measuring the performance of a team or a process. Therefore, we need to think a little differently about the kinds of measures that will tell us what we really need to know. When we measure the performance of the business process or team, we are interested in how a particular business result produced by that process or team is changing as time goes by. When we are measuring the performance of a project, we are interested in the impact the project has at a point in time, or over a fixed timeframe.

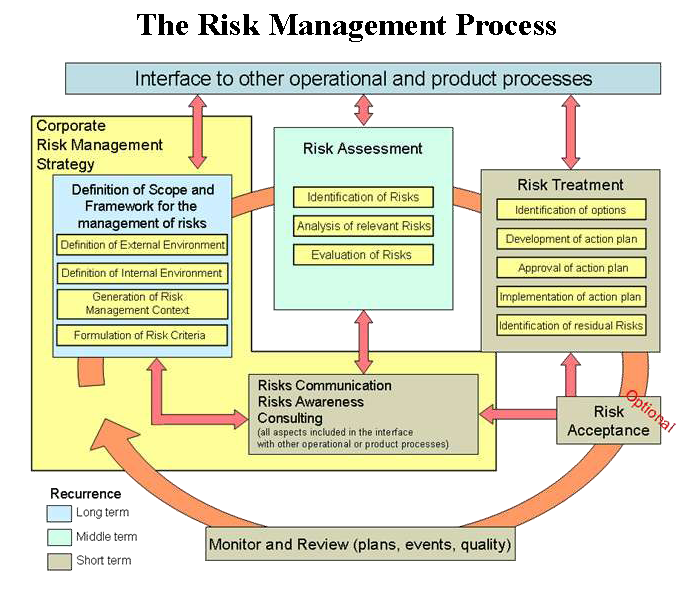


Figure 2.1: The Risk Management Process, According to ISO Standard 1335

This is because projects by their very definition have a start point and an end point. The reason we do projects is to make a difference and usually the difference we are trying to make is to make some kind of result, especially in business, better. Thus, our first Key Project Indicators (KPI) for projects is;

1. **Project KPI 1: Direct Impact**

So, the size of this impact on a business performance measure is a measure of a project’s success. It is the size of the difference between the level of performance before the project’s start time, and the level after the project’s end time. However, it is not the only measure of success.

1. **Project KPI 2 & 3: Bottom Line Impact & Return On Investment (ROI)**

A project will not be successful if the cost of doing it was not sufficiently lower than the value of the impact. So, two other important measures are financial impact, like costs saved or income generated, and ROI.

1. **Project KPI 4 & 5: On-time & On-budget**

Measures can also help us manage the project while we are implementing it. A well-managed project is more likely to have a big impact and big ROI. This is where the most commonly used measures of project performance come in: on-time and on-budget. In addition, these are measured at regular milestones throughout the project. Nevertheless, they only make sense if we do not change the goal posts.

1. **Project KPI 6 & 7: Stakeholder Support & Engagement**

Support for our project might also be important. Stakeholder perception of value can be measured to monitor this, in part. However, a more direct measure of support is the amount of stakeholder participation in project tasks and events.

So, we now have a basic framework of measures of the performance of a project:

1. ROI
2. Business financial impact
3. Business performance measure impact
4. Milestones completed on-time
5. Milestones completed on-budget
6. Stakeholder perception of value
7. Stakeholder participation



Figure 2.2: Key Performance Indicators

Decisions should ideally be made under conditions in which all factors of influence and the decision-making methods result in predictable outcomes. However, decision-making often happens under conditions of risk and uncertainty. Insurance projects never run under the ideal conditions of certainty. A decision is made under conditions of risk if the decision maker is able to assess rationally or intuitively, with a degree of certainty, the probability that a particular event will take place, using as a basis his information about similar past events or his personal experience (Ceric, 2003, p. 11).

Expected Value was one of the first theories of decision-making under risk. The expected value model did not consider the fact that the value of a particular payoff held for one person was not directly related to its precise monetary worth (Tversky & Kahneman, 11 1979). Bernoulli introduced the concept of systematic bias in decision-making. Bernoulli assumed that people tried to maximize their utility and not their expected value (Tversky & Kahneman, 1979). In Von Neumann and Morgenstern’s model of subjective utility, one person may not share the same utility curve as another, but each follows the same normative axiom in striving toward their individually defined maximum subjective utility (Neumann & Morgenstern, 1953).

Prospect theory is a theory of decision-making under conditions of risk (Tversky & Kahneman, 1979). Decisions involve internal conflict over value trade-offs. This theory is designed to better describe, explain, and predict the choices that a typical person makes in the world of uncertainty.

The theory addresses how these choices are framed and evaluated in the decision making process. Prospect theory advances the notion that utility curves differ in domains of gain from those in domains of loss. Prospect theory is designed to explain a common pattern of choice. It is descriptive and empirical in nature. Prospect Theory looks at two parts of decision making: the editing or framing phase, and the evaluation phase (Tversky, 1967). Framing refers to the way in which a choice or an option can be affected by the order or manner in which it is presented to a decision maker. The evaluation phase of a prospect theory encompasses two parts; the value function and the weighting function. The value function is defined in terms of gains and losses relative to the reference point not in terms of absolute wealth. In prospect theory, value is a function of change with a focus on the starting point so that the change is either negative or positive.

Prospect theory predicts that domain affects risk propensity. Losses have more emotional impact than an equivalent amount of gains and therefore weighted more heavily in our decision- making (Tversky & Kahneman, 1975). In making a decision, a decision maker multiplies the value of each outcome by its decision weight. Decision weights do not serve solely as measures of perceived likelihood of an outcome but also represent an empirically derived assessment of how people actually arrive at their sense of likelihood. An important function of weighting function is that low probabilities are overweighed while high and medium probabilities are subjectively underweighted (Tversky & Kahneman, 1979).

Risk is an exposure to the possibility of economic or financial loss or gains, physical damage or injury or delay as a consequence of the uncertainty associated with pursuing a certain cause of action (Chapman C.B., 1983). Many scholars have defined risk: Wideman (1986), Godfrey (1996) Kliem and Ludin (1997) and Smith (1999). Most definitions include the factors of chance or probability of events and the negative impact on the objectives or project. In mathematics, probability of an event is expressed statistically using the mean, dispersion, confidence interval and other statistical parameters. Relevant data must be available for a statistical analysis. When no data exists, the experience and knowledge of the decision maker is important in assessing the probability of an adverse event. Risk impacts insurance projects by adversely affecting the planned expenses, project schedule and quality of works. Both increased project duration and poor quality can be expressed in increased expenses.

Risk impact is often calculated both quantitatively and qualitatively. Risk exposure is the product of risk probability and risk impact. Risk management is the process that, when carried out, ensures that all that can be done will be done to achieve the objective of the project, within the constraints of the project (Clark, Pledger and Needler, 1990). Risk management includes planning for risk, identifying risks, analyzing risks, developing risk response strategies and monitoring and controlling risks to determine how they have changed (Kerzner, 2009). Since risk affects the achievement of project objectives, risk management is one aspect of sound project management.

According to Perry and Hayes (1985), the risk management process is linear and consists of risk identification, risk analysis and risk response. This linear process however, does not appreciate that most risk management activities are themselves sources of new risks. Many scholars such as Carter et al (1994), Kliem and Ludiem (1997), Baker, Ponnier and Smith (1998), Chapman (1997), Grammer and Trollope (1993); view risk management as a cyclical process with a number of different phases. The cyclical process appreciates that a risk response may produce new events that may adversely affect the project and which it is necessary to identify, analyse and anticipate the appropriate response (Ceric, 2003).

The contingency amount has for a long time been added to the estimated cost and time to cover for all risk events and uncertainties. This amount is often an arbitrary figure of 10% to 20% of the estimated contract amount or project duration. This approach however does not take into consideration the specific features of each project and can thus not be said to be risk management. Hamburger (1990) and Murray et al (1983) have discussed the use of project reserves and contingency amounts as risk management strategies in projects. Jackson and Flanagan (2002) developed a systematic approach to managing project budget risks during project appraisal.

## Empirical Literature Review

In this section, we review literature related to the research problem and both the independent and dependent variables.

### Risk Identification and Management

Risk management is one of the nine knowledge areas propagated by the Project Management Institute (PMI). The PMBOK® Guide recognizes nine knowledge areas typical of almost all projects. Each PMI knowledge area in itself contains some or all of the project management processes. Risk management is a difficult aspect of project management. The project manager must be able to recognize and identify the root causes of risks and correlate them to their effects on project performance. Risk management in insurance project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives (PMI, 2008; ICE, 2005). Major decisions and influence on the choice of alignment and selection of insurance methods are made at the early stages of a project, making risk management at this stage very essential (Eskesen, Tengborg, Kampmann, & Veicherts, 2004).

The insurance industry involves many players and is inherently complex. The major classifications of insurance works are: general and life insurances. Most insurance work in Tanzania involves new public and private projects. Large insurance projects are exposed to risks arising from planning, design complexity, many players, use of many resources and their availability, unpredictable environmental factors, the continuously changing economic and political environment and statutory regulations.

The risk analysis and management techniques have been described in detail by many authors (Ahmed, 2007, Cretu, 2011; Chapman C, 2003; Klemetti, 2006; Smith NJ, 2006).

A typical risk management process includes risk identification, risk assessment, risk mitigation and risk monitoring. Risk identification process attempts to identify the source and type of risks. Risk identification involves the recognition of potential risk event conditions in the insurance project and the clarification of risk responsibilities (Wang, Dulaimi, & Aguria, 2004). Risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness. The identification and mitigation of project risks are crucial steps in managing successful projects (Carbone & Tippet, 2004, para. 1).

### Insurers/Actuaries Selection Process

Quality and cost-based selection (QCBS) is the default method of selection. Quality based selection (QBS) is only applicable where quality is the paramount factor. The laws in Tanzania are silent on such consideration for the insurance industry specifically. Selection under a fixed budget may be applied when the assignment is simple and can be precisely defined and when the budget is fixed. Least cost selection may be applied when selecting consultants for assignments of a standard and routine nature and where well-established practices and standards exist and in which the contract amount is small. The law also provides for selection based on consultant’s specific qualifications. The annual procurement plan should ensure there is sufficient budget allocation (GOR, 2007).

QCBS procurement method is a competitive process among short listed firms that considers both the quality of the project and cost of the services in the selection of the successful firm. The relative weight to be given to the quality and cost is to be determined for each case depending on the nature of the assignment. The technical and the financial scores are determined according to the complexity and nature of the assignment. The coefficient for quality and cost score to be used in determining the winning project is specified in the request for projects. The coefficient ranges from 0.7 to 0.8 for quality and 0.2 to 0.3 for cost. The overall score is obtained by adding the technical and financial scores after the weighting.

QBS may be appropriate for complex or highly specialized assignments, or those, which invite innovations. The selection is based solely on the quality of the project without consideration of the cost. The Public procurement guide (2000) stipulates that QBS will be used for assignments that are complex or highly specialized, have a long term impact and in which the objective is to have the best experts available; assignments that can be carried out in very different ways such as management advice and therefore projects may not be directly comparable. The guide gives an example of insurers designs.

The selection of the insurers or actuaries happens long after the project has been conceived and the budget has been approved. The procurement law and the user’s guide (2000) do not anticipate the need for the services of an insurer and actuary at project planning stage but rather at the design stage. This therefore means that the needs assessment, the scope definition and the budget estimate are done without the advice of the insurer or actuaries. The failure to recognize the services of the insurer or actuary as innovative and special management consultancies leaves clients at the mercy of the lowest qualified bidder.

### Environment Selection

Critical decisions made at the very beginning of every capital development project have major consequences for the overall success of the project. The environment affects the organization, massing, functionality, sustainability, operation and economic efficiency and lastly security (GSA, 2001). The decision-making about the location of a project environment is an important risk management practice at planning stage. The location has a strong influence of design and structural characteristics and thus the execution of the project. The decision-making about location of investment is complex, low structured and multi-criteria problem (Jajac, Bilic, & Adjuk, 2013).

The environment selection is a lifecycle decision that recognizes the balance among the initial cost of project, the overall cost of executing the project, and the cost of operating it. All factors must be considered, in addition to the key factor of cost, in order to make the right decision. Making the right decision in environment selection ensures that the selected environment is suitable for the intended use; reduces the risk of unanticipated difficulties and their impact on time schedule and budget, manage expectations of stakeholders and encourage innovation and creativity in the selection process while incorporation existing precedents and best practices.

### Needs Identification and Validation

Projects are authorized as a result of a market demand, a business need, a customer request, a legal requirement or a social need. One of the approaches in developing the project idea is the top-down when decision makers, politicians or senior civil servants identify situations that need improvement and try to find opportunities. The bottom-up approach starts by the general public coming up with requests to the decision makers, politicians or civil servants to act to solve a problem through a project. A full and accurate analysis of the existing problems, needs and opportunities is key to the achievement of a properly planned project addressing the real needs of specific target groups.

Problem analysis identifies the negative aspects of an existing situation and establishes the “cause and effect” relationships between the identified problems. The problem analysis involves the definition of the framework and subject of analysis and the identification of the major problems faced by target groups and beneficiaries; and the visualization of the problems in form of a diagram called a problem tree to help analyse and clarify cause–effect relationships. The analysis is aimed at identifying the real bottlenecks which stakeholders attach high priority and which they wish to overcome. The problem analysis provides a sound foundation on which to develop a set of relevant and focused project objectives. Involving stakeholder representatives with appropriate knowledge and skills is critical to the quality of the output. A well-defined project can reduce the risk of changes and delays during Project scope definition.

Effective needs identification leads to clear project scope definition which can alleviate the risks of inadequate project planning and inadequate design that can lead to expensive changes during delays, rework, cost overruns, schedule overruns and project failure (Fageha & Aibinu, 2014). Variations during project execution most of the time are a reflection of the unmanaged risks that occur during the early stages of the project (Assaf & Al-Hejji, 2006). The change requests during the implementation stage are often as a result of a stakeholder’s differing appreciation and view of the project. The reason for such change orders may be poor project definition or poor idea of how the work has to be handled. In turn, stakeholders would then refer to the different parties who can influence the project and those who will be affected by the project. A project has many stakeholders beyond the project team boundaries and whose interest could be related or in conflict (Wang & Huang, 2006). The needs identification process at the early stage with the input from all stakeholders is vital to the project success.

Validation is the assurance that a product, service, or system meets the needs of the customer and other identified stakeholders and often involves acceptance and suitability with external customers (PMI, 2008). The project needs validation process which involves a set of criteria against which the project will be validated. They may include compliance with organizations’ strategy, anticipated project impact, technology, risk, expected income (return on investment, profitability index, payback period) and safety. The organization must have the necessary resources and funding to undertake the project. The project scope and goals should comply with the organizations business strategy. The validation process investigates the feasibility of a project by reviewing the level of project risk, approving the value of the project risk and by verifying the proposed project methodology.

### Preliminary Schedule and Budget Development

The establishment of an appropriate budget and time schedule is critical to the success of an insurance project. The client and the design consultants must agree on the anticipated cost early during the planning stage. This is a critical stage in the cost management process since an inaccurate budget can lead to poor project performance. Inaccurate budget may lead to quality compromise and variations with the client, end-user and the design team being completely unsatisfied at the end. A common mistake at planning stage is to use a schedule of accommodation with areas and apply some historical costs without making adjustments for the many factors which affect insurance costs such as size of the project, location, price increase since the date of the data used, procurement method, overall quality of the space envisioned, access and locational factors such as dense urban, traffic and sidewalk protection, water location, bid competitiveness in the local market, etc. ("WBDG," 2011).

Preliminary Estimates are developed during the planning stage of a proposed project in line with clients’ needs as expressed in an agreed spatial requirements brief, and with budget constraints in order to establish its overall scope and quality expectations. The bid based price estimation is most common and relies on using elemental costs tabulations from recently awarded projects of similar size and nature.

The preliminary insurance project schedule gives an indication of the project duration, critical path items and identifies major milestones. The preliminary schedule identifies the time line dates, absolute or relative to a start date, that a project task or activity will be started and completed. The schedule allows applicable resources to be identified and an anticipated timeframe to be established. This estimated time provides the basis for budgeting individual tasks and the project as a whole.

Program Evaluation and Review Technique (PERT) is a network scheduling technique that helps to determine where the greatest effort should be made to keep a project on schedule. PERT is used to determine the probability of meeting deadlines by development of alternative plans. PERT has the ability to evaluate the effect of changes in the program. Adopting PERT procedures can lead to reduction of the project cost and schedule and to better coordinate and expedite planning (Kerzner, 2009). PERT procedures help to cut the time required for routine decisions, but allows more time for decision-making.

### Project Cost Performance

Project Management Body of Knowledge guide (PMBOK) defines cost estimates as a developed approximation of the monetary resources needed to complete project activities. The accuracy of cost estimates starting from the planning phase of a project through to the tender estimate can affect the success or failure of an insurance project. Many failures of insurance projects are as a result of cost escalations. The process of determining the project budget involves aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline (PMI, 2008).

The project budget that results from the planning cycle must be reasonable, attainable, and based on contractually negotiated costs and the statement of work. The basis for the budget is historical cost, best estimates, or industrial engineering standards. The budget must identify planned manpower requirements, contract-allocated funds, and management reserve. Performance results standards are quantitative measurements and include such items as quality of work, quantity of work, cost of work, and time-to-complete (Kerzner, 2009).

Earned value is a management technique that relates resource planning to schedules and technical performance requirements. Earned value management (EVM) is a systematic process that uses earned value as the primary tool for integrating cost, schedule, technical performance management, and risk management. A variance is defined as any schedule, technical performance, or cost deviation from a specific plan. The cost variance compares deviations only from the budget and does not provide a measure of comparison between work scheduled and work accomplished. In order to calculate variances, we must define the three basic variances for budgeting and actual costs for work scheduled and performed (Archibald, 1976).

The first variable is the budgeted cost for work scheduled (BCWS) which is the budgeted amount of cost for work scheduled to be accomplished plus the amount or level of effort or apportioned effort scheduled to be accomplished in a given time period. The second variable is the budget cost for work performed (BCWP) which is the budgeted amount of cost for completed work, plus budgeted for level of effort or apportioned effort activity completed within a given time period. This is sometimes referred to as “earned value.” The third variable is the actual cost for work performed (ACWP) is the amount reported as actually expended in completing the work accomplished within a given time period.

BCWS represents the time-phased budget plan against which performance is measured. For the total contract, BCWS is normally the negotiated contract plus the estimated cost of authorized but unpriced work (less any management reserve). For any given time period, BCWS is determined at the final cost account level by totaling budgets for all work packages, plus the budget for the portion of in-process work (open work packages), plus the budget for level of effort and apportioned effort (Kerzner, 2009).

### Projected Time Performance

The project time schedule includes a planned start date and a planned finish date for each activity. A project schedule may be presented in a summary form referred to as a master schedule or milestone schedule or may be presented in detail. Often, the project schedule is presented graphically using milestone charts, bar charts, and project schedule network diagrams. The schedule baseline is developed from the schedule network analysis and is accepted and approved by the project management team as the baseline with baseline start dates and baseline finish dates. The baseline is a key element in schedule control and time management.

Project time performance is established by measuring, comparing and analyzing schedule performance such as actual start and finish dates, percent complete and remaining duration of work in progress. The performance is assessed by the use of techniques such as earned value management (EVM), schedule variance (SV), schedule performance index (SPI). These techniques help to assess the magnitude of schedule variances. The critical chain method compares the amount of buffer remaining to the amount of buffer needed to protect the delivery date and thus can help determine the schedule status (PMI, 2008). The total float variance is an essential planning component to evaluate project performance. Project management software for scheduling such as MsProject and Itask provides the ability to track planned date versus actual dates and to forecast the effects of changes to the project schedule.

Other available relevant literatures have been discussed below to have an insight of the previous work done on the subject. The findings in this area, however, are not consistent. Several studies found a positive relationship between the two variables. *“Risk Management and the transition of projects to “business as usual””*. A paper written by Sharma, J., Baraybar, A. J. and Dempey, M. from KPMG, which entails that today’s banks, insurance companies and other financial organizations must address a growing number of change management issues, including Basel III compliance and adoption of new enterprise-level technology.

Sound project management practices have been used by these organizations to mitigate change-driven operational risks. They also explain that in many ways, risk management is supported by the effective management of the project life cycle. Project management offices (PMOs) and steering committees are responsible for ensuring that all critical risks are considered and mitigated as part of project delivery.

As part of efforts to mitigate critical risks, management should target specific focus areas at the junction between deployment and project closeout. These focus areas include; clarity of roles, responsibilities and transparency in project reporting, Rigor of formal project governance processes, Sustainability and operational readiness assessment and confirmation, development of a formal process to track issues, risks, deficiencies and decision making and clear definitions of roles and responsibilities for closure, including a process for assumption and transfer of authority and accountability. In each of these areas, risks across the project life cycle need to be properly managed by project managers and stakeholders with a strong influence on funding and results.

PWC, (2009), did the analysis of 52 North American, European and Japanese Financial institutions and found out that the market tends to assign a higher price-to-book multiple to firms with more effective and sophisticated risk management programs, as measured by earnings volatility, capital adequacy and capital optimization. More than half of 101 senior executives surveyed by PWC believe the capital market reward companies with a strong track record for risk management. They go on and explain that, a centralized, top-down approach to risk may work for some companies, but a more collaborative, integrated, accountability structures that provides incentives at every level of the organization may be better suited to managing risks alongside performance in an increasingly interconnected business world.

A research done on different universities in Kenya on relationship between risk management practices and organizational performance suggested that risk management is a key factor which determines the level of progress of organizations. The proper mechanism and system of risk control should be put in place to establish, prevent and mitigate risks encountered in operations of the organizations. An efficient risk management practice in risks could greatly reduce costs of maintaining operations in organizations. This study was motivated by the need to establish the relationship between risk management practices and performance.

Srinivas, Gallupe and Wolf, (2011), conducted a research on selected New Zealand and Canadian firms engaged in Internet-based projects where they analyzed the characteristics of these projects to determine current practices that facilitate and inhibit successful development and deployment of information technologies. From the case descriptions, they derived a set of factors that decision makers consider most important in evaluating the performance of their internet-based projects. They argued that the complexity of such projects, which makes them difficult to evaluate lies significantly in the interdependencies between performance factors and risks. Therefore, they suggest that taking an integrated view of performance and risks could assist the organization in making project-planning decisions. Therefore, they developed an integrated framework to assess the relationship between risk and performance on internet-based projects, which will improve decisions that must be made in both the planning, and execution phases of a project.

Carvalho and Junior, (2014), conducted a study that aimed to elucidate the relationship between risk management and project success, considering the contingent effect of project complexity. They involved 263 projects distributed among eight (8) industries. The fieldwork involved interviews with project managers and risk managers and an analysis of internal company documents about the projects’ performance.

It was found that the soft side of risk management appears most prominently and explains 10.7% of the effect on project success and it supports the hard side, since they found a significant correlation that explains 25.3% of the effect on the hard side. Ahlemann et al, (2013), state that the prescriptive characteristics of project management in general and risk management in particular lead to numerous problems such as non-acceptance practice, limited effectiveness and ambiguous application scenarios.

Carvalho and Junior, (2014), explain that the relationship between risk management and project success or failure has been studied extensively, particularly in the field of Information Technology (IT) (Ropponen and Lyytinen 1997, 2000; Yetton et al, 2000; Kwak and Stoddard 2004; Na et al, 2004; Zwikael and Globerson, 2006; Han et al, 2009; Bakker, Boonstra and Wortman 2010, 2012). These studies have come up with controversial findings. Although some surveys (Ropponen and Lyytinen 1997, 2000; Zwikael and Globerson 2006) have found that risk management has low impact on project performance, Bakker, Boonstra and Wortman, (2010) suggested that even moderate level risk management planning suffice to reduce the negative effects of risks on project success.

The distinct findings may be explained by the contingency approach, in which the type of project can affect not only project performance but also the effectiveness of project management practices (Shenhar and Dvir, 1996; Shenhar 2001; Cleland and Ireland, 2002; Shenhar et al 2002, 2005; Schwalbe 2007). Another explanation for the contradictory findings is that these studies focus on risk management, neglecting relevant aspects in uncertainty management, such as the soft skills of project stakeholders (Grabher 2004; Crawford et al 2006; Gladwell 2006; Sharma and Gupta 2012; Soderlund and Maylor 2012).

Zwikael and Ahn, (2011), conducted a study in three countries; New Zealand, Israel and Japan, involving 701 project managers in seven (7) industrial sectors. The study highlights the importance of project context, considering the industry’s and country’s levels of project risk. The authors suggested that even moderate levels of risk management planning will suffice to reduce the negative effects of risk on project success. Bakker, Boonstra and Wortman (2012) support these findings and emphasize the importance of identifying risks as having more widespread effects on project success, followed by risk reports.

## Research Gap

By considering the above reviewed empirical literature, it is evident that a good number of similar researches have been done, but there are a number of gaps left ranging from geographical to time as well as nature of the organization studied. As seen in the empirical literature, most of these researches have been conducted in the developed countries, this develops a gap in geographical location as most of the findings cannot be in favor of the Tanzanian environment. Few studies have been done in Africa. Also, the researches have been conducted years back, which then develops a gap in time as time is a very critical matter due to the everyday changes in the business world. Another gap is developed by the nature of the organization researched on, as many of the researches have concentrated mostly on the performance of the entire organization and not at a specific project performance. This research will then fill the existing gap that has been left by previous literature, specifically the effects of operational risk management on project performance of organizations in Tanzanian.

The literature review shows that most researchers have focused on different techniques for risk management and the role of risk management in insurance projects. While most literature acknowledge that risk management is a process, the issue of how this process should be adopted to the insurance process is not very clear. Most literature approaches the insurance as an organized and standardized service process. However, the insurance often has special features for every project that burden the process and makes changes leading to process improvement difficult.

The many players in the insurance industry bring many risks. While many scholars appreciate this source of risk, there is no theory on how to ensure that its project processes are well integrated. There is need to integrate the separate operations and interests of the client, the designers and suppliers to ensure unwavering commitment to the success of the project.

There is no research on risk management in insurance projects in Tanzania. Despite the volumes of literature on risk management in the insurance industry, delays and cost overrun remain an everyday event in most insurance projects. There is therefore need for research to develop a better understanding of what effective risk management is in the insurance industry. While the literature review indicate that the planning stage provides the best opportunity for risk management for project success, very little research has been done to show the impact of specific process at this stage on project performance. This research aims to contribute to this knowledge and with an emphasis on Tanzania Insurance industry.

## Conceptual Frameworks

The conceptual framework for this study is derived from the literature review that has identified the key risks at planning stage and suggested risk management practices. According to the UMIST report on risk management (Hayes et al, 1986) the greatest uncertainties and risks appear in the earliest phases of the project life cycle. The UMIST report recommends that project management should be a continuous activity throughout the project life cycle. The planning stage provides the greatest opportunity in the project life cycle to govern and control scope, costs and schedule through sound risk management practices (Wallace & Blumkin, 2007).

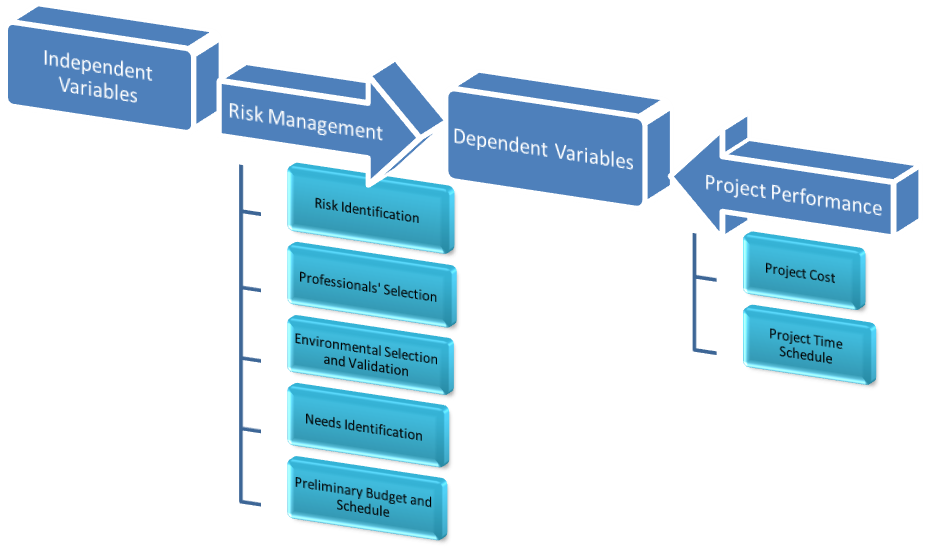


Figure 2.3: Conceptual Framework

**Source:** Compiled by researcher from various sources.

The risks at insurance project planning stage include poor scope definition, poor estimating and a project budget based on incomplete data. The risk management practices required at this stage include risk profiling and identification, the insurers and actuaries selection process, the environment selection and validation process, the needs identification and validation and the preliminary budget and schedule development. Risk profiling involves finding an optimal investment risk by considering the risk required, risk capacity and risk tolerance of the client. The research aims to study the correlations between the risk management practices and the project performance. This research aims to describe, explain, and predict the choices made at insurance project planning under conditions of uncertainty. The research addresses how these choices are framed and evaluated in the decision making process.

# CHAPTER THREE

# 3.0 RESEARCH METHODOLOGY



## Overview

This chapter describes the methodological aspects that were used in conducting the research. It includes research design, population and sampling procedures, and data collection methods to be used and how data was used in presenting and analyzing the research question.

Research Methodology is defined as a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it, we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them, (Kothari, 2004). It involves elements like; defining the research problem; sampling design, data collection methods, data analysis. The researcher intends to use the following elements; Research design, population and sample size, sampling techniques, data collection, and data analysis.This chapter is intended to give a brief description on how the study was conducted as per the fore mentioned items.

## Research Paradigm

For the purpose of this study, both the research philosophies were used. These are positivism and enterpretivism (quantitative and qualitative). The researcher used quantitative design to obtain different measurements of data and qualitative design to obtain different views and opinions of people.

## Research Design

Research Design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the researcher’s purpose with economy in procedure (Kothari, 2004). Research was conducted within the conceptual structure. The function of research design is to provide for the collection of relevant information with minimal expenditure of effort, time and money (Ranjit, 2005). Research design is one of the most important tasks in carrying out the survey. Explanatory research design was adopted in this study to investigate how operational risk management can help the performance of projects in Tanzania. Research design allows the researcher to analyze the relationship between risk management and project performance.

The research project used both qualitative and quantitative research. The research was both descriptive and explanatory. The research is descriptive as it attempts to answer the question of what risk management practices should be included in insurance projects planning phase. The research is explanatory as it seeks to show why such risk management practices affect the project performance. The research attempts to predict, correlate a risk management practices at planning stage with project performance. The research has a cross sectional design, which involves getting views of respondents or informants at one point in time.

The research is probabilistic rather than deterministic. Risk management is in the field of human social behavior. The complexity of human social behavior and the subjective, meaningful and voluntary components of human behavior means that it will never be possible to arrive at causal statements that are purely deterministic. The researcher used sampling design. The researcher decided to use sampling design because it is difficult to give each respondent a questionnaire.

### Area of the Study

The study was conducted in the Insurance Industry in Tanzania. The area was chosen because the researcher works in the same industry thus data collection was easily accessible and researcher achieved high response rate of the questionnaires as expected.

### Population of the Study

According to Kothari (2007), the term population means an entire group of individuals, events or objects that have common observable characteristics. It refers to all elements that meet certain criteria for inclusion in a given universe. The study used case study based approach and the targeted population were employees of the Insurance players in the country which has more than 300 companies. A total of hundred and six (106) employees from different cadres in the companies from marketing, administrative and technical staff were selected for the study. The main reasons for the choice of case study were based on the strengths of methodology that allowed intensive investigation Also, the study was the case study design which has several ways of doing social science research. Under this, a single unit of the study was studied to obtain information on several variables.

### Sample and Sampling Technique

According to Kothari (2007), sample is a collection of some parts of the population to be a true representative of the population. Sample size refers to a number of items to be selected from the population. While sampling technique is defined as a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of characteristics found in the entire group (Kothari, 2007). Sampling can be probability or non-probability.

**Probability Sampling;** under this sampling design, every item of the universe has an equal chance of inclusion in the sample. This technique was used specifically to all employers and staff. The researcher used this method because there is no bias in selecting respondents, since all respondents are given an equal chance of being selected.

**Non-Probability Sampling;** This is the sampling procedure, which does not afford any basis for estimating the probability that each item in the population has been included in the sample. The researcher used this method because some data could be found to specific people, example Manager, Director (In cases of staff). Also, the method will be used to staff, especially those who will be willing and able to respond to the questions on project performance by their organization and the associated risks. Likewise, personal interview can be used on staff to obtain information like an experience on when risk management assisted in the performance of different projects in their company.

## Procedures of Data Collection

According to Kothari (2007), procedures for data collection is defined as a guideline for the collection, processing and analysis of data from the selected population. These methods can be grouped according to whether they use secondary or primary source of data collection. This study employs both primary data and secondary method of data collection.

### Types of Data

The task of data collection follows after a research problem has been defined and research design chalked out (Kothari, 2007). In this research two types of data, namely primary and secondary data were collected.

#### Primary Data Collection Method

Primary data is the information, which is collected specifically for the purpose of answering the question at hand. This source of data is gathered directly from respondents and it includes; questionnaires, interviews, focused group discussions, observation and experimental studies. Information here was collected from the respondents by using personal interview and questionnaires.

#### Secondary Data Method

Are those data, which have been collected by someone else and have already passed through statistical processes? Also, secondary data can be defined as the data that provide second hand information and include both raw data and published ones (Saunders et al, 2000).

### Methods of Data Collection

#### 3.4.2.1 Interview

This is a conversation between the interviewer and the interviewee with an intention of getting information from the interview. The researcher used both structure and unstructured interview in order to obtain relevant information from the respondents. This method helped to capture the information in a short period of time compared to other methods and also, it helped to get more classified data or information provided by the respondents and quick feedback. Interviews provide a way of collecting information on and finding out about things that the researcher cannot directly observe (Patton, 1990).

#### 3.4.2.2 Questionnaires

Questionnaire is a set of questions, which are usually sent to the selected respondents to answer at their own convenient time and return the filled questionnaire to the researcher. The reason for using questionnaire includes its ability to cover a large sample size at a low cost and give a respondent adequate time to give well though-out answers. (Saunders, Lewis & Thornhill, 2012). The questionnaires consisted of closed and open - ended questions. Close ended questions were multiple choices where respondents were requested to tick in the appropriate box/letter against the answers that satisfy him/her. For the open – ended questions, the respondents were required to fill the spaces provided by giving their opinion. This method is to be given to the staff as well as top management to properly present their view and opinion concerning this research. The questions were used as a major data collection technique.

## Pilot Test

Instruments were initially piloted to small numbers of respondents to verify whether the questions are easy to understand, appropriate to the research topic, unambiguous (Fellows & Liu, 2008) and to gain some idea of the time required to administer the questionnaire. It is also important to get feedback and input on other important issues that may be worthy of consideration that the initial instrument may have missed. This also gives the researcher an indication of whether the instrument is measuring the right concept, hence its validity and reliability.

Validity is the degree to which an instrument measures what it is supposed to measure. The reliability of a research instrument is the extent to which the instrument yields the same results on repeated measurements. The tendency toward consistency found in repeated measurements is referred to as reliability (Carmines & Zeller, 1979). The researcher used the retest method to determine the reliability of the instruments by giving the same test to the same people. This was achieved by asking the same question in a slightly different way at a later time or in a different part of the questionnaire. The reliability of the instrument was estimated by examining the consistency of the results between the two measurements.

## Data Processing and Analysis

The researcher collected data from various sources and use the data management tools and procedures in preparation for analysis. As appropriate for an exploratory and descriptive study in which the study’s design involved over the course of the research. Two approaches were used for the analysis of data. These are such as;

### Quantitative Analysis

This involves the use of sample statistics especially the use of percentage and tables, the data was generated from close-ended question tailed, tabulation and connected into percentage for easy interpretation.

### Qualitative Analysis

This involves the factual and logical interpretation of the study findings, since the study is qualitative in nature. The qualitative technique involved logical interpretation of data. It used to analyze and interpret data that cannot be quantified (cannot be expressed in figures). Qualitative data was chosen through content analysis by communication, experience, opinion and feeling based on their messages. This technique helped the researcher to understand the companies’ behaviors towards the relationship between risk management and project performance in an indirect way by analyzing their perspectives.

## Reliability and Validity of Data

Reliability is defined as the extent to which results are consistent overtime (Saunders, Lewis & Thornhill, 2012). Reliability has to do with accuracy and precision of measurement procedures. Validity implies applicability and usefulness of the data obtained through such reliable design and all the way to conclusive findings (Kothari, 2007). Pilot study was done to test whether the tools are truly measuring what they intended to measure (Kothari 2007). Reliability of the tool was made by piloting the questionnaires before a comprehensive exercise of data collection to see if the tool can give consistent response from different respondents.

## Ethical Issues

Ethical refers to the standards of behavior that guide researchers' conduct in relation to the rights of those who become the subject of research, or are affected by it (Saunders, Lewis & Thornhill, 2012). In this study, the researcher ensured that there is confidentiality of the data provided by the respondents. In addition, researcher ensured anonymity of participant's identities. Before collecting the data, respondents were informed about the purpose of the study and the way the results were used.

**CHAPTER FOUR**

# 4.0 INTERPRETATION, ANALYSIS AND DISCUSSION OF THE FINDINGS



## Introduction

Chapters four presents and analyze findings. The use of figures and percentages in form of tables and graphs is adapted to present and analyze the results in order to answer the research questions. Total of 106 (hundred and six) questionnaires were distributed to respondents from the Insurance industry both staff and top Management. The returned and successful answered questionnaires by respondents were 98 (ninety-eight). The questionnaires comprised of two parts namely; personal profile of respondents and questions related to the relationship between project risk management and project performance.

## Descriptive Statistics on the Demographic Variables of Respondents Involved in the Study

From the sample size involved in the study to represent the entire population intended to be studied; the sample chosen had variety of professionals, sex and age groups (total percentage of 64.3 male and 37.7 female were sampled). Statistics by educational level shows that those with Master’s degree constituted 44.9% and those with first degree constituted 27.6%. The rest composed of those with higher degree respondent aged between 31 and 40 who dominated the study by 50% followed by those aged below 31 who constituted 30% of the study.

On the other hand, results show that 70.4% of respondents have been working in the Insurance industry at the range of between 4 to 10 years. This information tells that the study has valid composition of the respondents ranging from different perspectives within the Insurance industry; this also ensures a clear insight of the situation prevailing within the sector. The details have been extracted from table 4.1 to table 4.5 depicting the real situation from the case study.

Table 4.1: The Respondents’ Gender

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Male | 63 | 64.3 |
| Female | 35 | 35.7 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

Table 4.2: The Respondents’ Age Groups

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| 20 – 30 | 9 | 9.2 |
| 31 – 40 | 49 | 50.0 |
| 41 – 50 | 30 | 30.6 |
| 51 – 60 | 8 | 8.2 |
| 61+ | 2 | 2.0 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

Table 4.3: The Respondents’ Educational Background

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Certificate | 0 | 0.0 |
| Diploma | 11 | 11.2 |
| Bachelors | 27 | 27.6 |
| Masters | 44 | 44.9 |
| Doctorate Degree | 16 | 16.3 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

Table 4.4: The Respondents’ Marital Status

| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| --- | --- | --- |
| Single | 16 | 16.3 |
| Married | 77 | 78.6 |
| Divorced | 3 | 3.1 |
| Widow/Widower | 2 | 2.0 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

Table 4.5: The Respondents’ Years of serving the Organization

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Less than 4 years | 11 | 11.2 |
| 4 – 10 years | 69 | 70.4 |
| 11 – 16 years | 9 | 9.2 |
| More than 16 years | 9 | 9.2 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

## Findings Based on the Assessment of the Relationship between Operational Risk Management and Project Performance

The assessment of the relationship between Operational Risk Management and Project Performance in the Insurance industry covered a wide area to collect information, which will be useful in understanding the right approached to receiving successful project performance. From the sample size, 40.8% indicate that they have conducted 6 to 10 projects since they started followed by 32.7% who have conducted 11 to 15 projects. This shows the experience that the sample size selected has in conducting projects. Table 4.6 shows the results from the study.

Table 4.6: Number of Projects Conducted

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Less than 2 projects | 6 | 6.1 |
| 2 – 5 projects | 11 | 11.2 |
| 6 – 10 projects | 40 | 40.8 |
| 11 – 15 projects | 32 | 32.7 |
| More than 15 projects | 9 | 9.2 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

From the findings collected from the sample population, all respondents (100%) agree to the fact that there is a relationship between ORM and project performance. The following are the reasons that the respondents provided:

1. Objectives of the projects are hardly addressed and so, sometimes there is divergence during the project. Hence, ORM is required so that such problems are avoided.
2. For any project to succeed, i.e., achieve positive performance, there must be operations taken in managing risks.
3. In conducting any project, one has to first ensure that any possibilities of running it, be it positive or negative, are taken into consideration.
4. Considering the risks of conducting a project will provide opportunities for the success of the projects.

This result has shown the importance of this study and that there is an understanding of this relationship and so, it requires the right approaches in order to make use of it so that positive project performance is achieved. Table 4.7 shows this result from the study.

Table 4.7: The Respondents’ Views of the Availability of the Relationship between ORM and Project Performance

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Yes | 98 | 100 |
| No | 0 | 0.0 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

### Level of Importance attached to Risk Identification

**Table 4.8: Risk Identification at Project Planning Phase**

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Yes | 91 | 93 |
| No | 7 | 7 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

The first objective was to identify the level of importance attached to risk identification practices during planning stage in insurance projects in Tanzania. Out of the 98 respondents, 91 of them, which make up 92.9%, agree to be risk identification process during the project planning phase.

### The Risks faced by Organizations in conducting different Projects

The researcher went on to find out the risks that organizations face when/during conducting of different projects. The respondents provided the following responses;

1. Lack of expected qualified individuals to work with during implementation of the projects.
2. The increase in prices of project requirements, equipment and other costs of implementation of the project. This tends to affect the projected budget to cover the project.
3. Change in government policies.
4. Currency fluctuation leading to under performance of some activities.
5. Poor estimation of the project life cycle. Sometimes activities take a longer time than expected.
6. Failure to reach targeted areas due to poor infrastructure and bad weather.
7. Human resources (man power) professionals tend to be inadequate depending on the required number in executing the projects.
8. Lack of integrity.
9. Poor time management especially in cases where decisions are to be made, in some cases these decisions are delayed and hence distort the project time for the projects.
10. Failure in project completion due to funders’ withdrawal from provision of funds for the projects.
11. The budgeting might not reflect reality for projects’ undertaking.
12. Timing of the projects’ start-up is a problem since funds disbursement may delay.

### Impacts Caused by the Risks to the Success of Project Performance

The respondents further provided the effects or impacts that the risks mentioned above cause to positive performance of the projects (project success). The effects are such as;

1. Delayed deliverance of the project end product (deliverables).
2. Low quality of deliverables.
3. Loss of confidence from stakeholders.
4. Poor performance of man power (human resources).
5. Failure to execute planned plans on time.
6. Higher risks to the project performance due to inadequately qualified human resources.
7. Poor discipline and honesty especially in issues that involve finances.
8. Bureaucracy (decision making time).
9. Project collapse.
10. Loss of trust from funders and stakeholders when the projects fail to be completed.
11. Re-imbursement of funds to sponsors (unused funds).

With the proof of existing risks in conducting the projects and how these risks affect project performance, 1% of the respondents believe that these risks can be beneficial to the performance of projects in their organization due to the reason that some risks, if well managed can bring positive outcomes for the projects, while 99% do not agree to this statement. Table 4.8 shows the results on this from the sample size.

Table 4.8: The Respondents’ view if Project Risks can be Beneficial to Projects

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NUMBER** | **PERCENTAGE (%)** |
| Yes | 1 | 1 |
| No | 97 | 99 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

**Table 4.9: Impact on the Project Cost for Identified Risks**

|  |  |  |
| --- | --- | --- |
| IMPACT | NUMBER | PERCENTAGE (%) |
| Fairly Large (20 – 40% variation) | 28 | 29 |
| Fairly Small (10 – 20% variation) | 33 | 34 |
| Very Large (over 40% variation) | 14 | 14 |
| Very Small (1 – 10% variation) | 9 | 9 |
| Risk did not occur | 14 | 14 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

There were many and varied reasons cited as reasons why these risks occurred. Most of these risks resulted in additional costs and delayed project completion time. Unforeseen risks occurred in the projects resulting in 10-20% project cost in 38.9% of the projects, a 20-40% variation in 33.3% of the projects and an over 40% variation in 16.7% of the projects. 39% of the respondents said that all team members had the best chance to manage cost variations while 82.5% thought that the client had the best chance to manage delayed payments risks. The consultants had the best chance to manage unsuitable design solution risks according to 53.7%. The client had the best chance of managing design changes according to 48% of the respondents while 36.6% of the respondents thought that the consultants had the best chance of managing design change. 75% of the respondents said that the consultants had the best chance to manage delays in design.

The insurance professionals had the best chance to manage project delays according to 73.8% of the respondents while the client had the best chance in managing the risk of unsuitable environment conditions according to 58.5% of the respondents. The insurers had the best chance in managing the risk of lack of materials according to 56.1% of the respondents.

### The Impact of Insurers and Actuaries Selection Process

**Table 4.10: Timing and Method of Insurers and Actuaries Selection**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Method of Selection** | | | | **TOTAL** | |
| **Time of Selection** | **LCBS** | **QBS** | **QCBS** | **Single Source** | **%** | **Number** |
| Feasibility stage | 3.7 | 3.7 | 52.7 | 13.4 | 73.5 | 72 |
| Before project planning | 00 | 1.85 | 1.85 | 10.6 | 14.3 | 14 |
| For supervision of works | 4.8 | 00 | 3.7 | 3.7 | 12.2 | 12 |
| **TOTAL** | **8.5** | **5.55** | **58.25** | **27.7** | **100** | **98** |

**Source:** Research (2016)

The insurers and actuaries were selected before design in 73.5% of the projects, before planning in 14.3% of the projects and for supervision works in 12.2 % of the projects surveyed. The quality and cost based selection, QCBS, was used in 58.25% of the surveyed project and single sourcing method in 27.7% of the projects.

**Table 4.11: Evaluation of Project Performance**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Perception** | **Functionality** | **Time** | **Cost** | **Communication** |
| Very Good | 26 | 9.5 | 9.5 | 10 |
| Fairly Good | 55 | 45.2 | 54.8 | 64 |
| Fairly Bad | 17 | 28.6 | 21.4 | 24 |
| Very Bad | 2 | 16.7 | 14.3 | 2 |
| **Number** | **98** | **98** | **98** | **98** |
| **Percentage** | **100** | **100** | **100** | **100** |

**Source: Research (2016)**

55% of the respondents evaluated the functionality of the surveyed project as fairly good; 26% evaluating it as very good; 17% as fairly bad and 2% as very bad. 45.2% and 54.8% of the respondents evaluated the project performance in terms of time and cost respectively as fairly good. Communication was evaluated as fairly good by 64% of the respondents.

### Measures adopted by Organizations for Successful Project Performance

Respondents from the sample size provided the measures that their organizations adopt or use in ensuring successful project performance. These measures are such as;

1. Conducting of needs assessment and risk analysis quite early, before the commencement of the project.
2. Involve all stakeholders in the planning stage of the project (stakeholder involvement).
3. On-job training of the manpower (human resources).
4. Employing professionals (experts) who will be part of the implementation of the project.
5. Adopting cultures that are suitable for all staff.
6. Realizing the real situation of the project environment prior to project start-up.
7. Persuading funders (fund providers) to disburse funds on time for the project activities to commence on time.
8. Ensuring that there is proper timing of commencing project activities.

### Risk Management Tools and Techniques that Organizations should adopt for effective Project Performance

Respondents also provided the risk management tools and techniques that they believe their organizations should adopt towards achieving effective positive project performance. These tools and techniques are such as;

1. To have better understanding of the risks and get prepared for better alternatives when they occur.
2. Organizations should operate in the sphere of their influence, that is, they should not be over ambitious to embark on projects that are beyond their own capacity (points mainly in capacity of the organization).
3. Provision of proper training for the workforce.

Table 4.12 shows the views of the respondents on different aspects of their organization in conducting projects towards achieving effective project performance.

Table 4.12: The Respondents’ views on ORM and Project Performance Relationship Questionnaire Statements

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CRITERIA** | Very Low | Low | Moderate | High | Very High | **TOTAL** |
| Project Capacity to manage risks |  |  | 98 |  |  | **98** |
| Project Managers Capacity to manage risks |  | 25 | 48 | 25 |  | **98** |
| Involvement of stakeholders |  | 49 |  |  | 49 | **98** |
| Org. Risk Management tools for project success |  | 25 | 73 |  |  | **98** |

**Source:** Research (2016)

### Needs Identification and Validation

**Table 4.13: Time of Needs Identification**

|  |  |  |
| --- | --- | --- |
| **Time** | **Project** | **Percentage (%)** |
| Planning | 54 | 55 |
| Type of project/Design | 32 | 33 |
| Implementation | 12 | 12 |
| **TOTAL** | **98** | **100** |

**Source:** Research (2016)

In the projects surveyed, needs identification was done during planning in 55% of the projects, during design in 33% and during implementation in 12% of the projects.

### Preliminary Budget and Schedule Development

**Table 4.14: Time of Budget and Schedule Development**

|  |  |  |
| --- | --- | --- |
| **Phase** | **% Budget Development** | **% Schedule Development** |
| Planning | 64.3 | 71.4 |
| Type of project/design | 35.7 | 19.0 |
| Implementation | 00.0 | 00.0 |
| **TOTAL** | **100** | **90.5** |

**Source:** Research (2016)

# CHAPTER FIVE

# 5.0 SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS



## Introduction

This chapter presents the summary, conclusion, recommendations and areas for further study. The main objective of the study was to determine the relationship between Operational Risk Management at the Planning Phase and Project Performance of Insurance Projects in Tanzanian Insurance Industry.

## Summary of Findings

The primary purpose of the study was to examine the relationship between ORM at the planning stage and project performance. Various techniques were used to analyze data derived from objectives of study. Research questions were answered and it involved 98 respondents from the Insurance industry. The study findings show that majority of the respondents (50%) were aged between 31-40 years. Dominant respondents were male comprising 64.3%. On the other hand, the findings revealed that 78.6% of the respondents were married. In addition, 44.9% of the respondents were university graduates with master degree.

The results have revealed that there is a recognizable relationship between ORM and Project Performance as they are two faces of the same coin. The project managers do understand some ways through which ORM can assist in attaining the most effective project performance in different projects. Risk management is recognized as an important exercise in order to achieve better performance of insurance projects. Success in insurance projects is indicated by its performance in the achievement of project time, cost, quality, safety and environmental sustainability objectives. Insurance projects in Tanzania and generally in the region and the world run a high risk of being well over budget and significantly late. While some degree of cost and time schedule risks is inevitable in insurance projects, it is possible to improve risk management strategies to minimize their negative impact.

The findings also revealed that project conducted in these organizations tend to face different kind of risks throughout the life cycle of the project like budget constraints, unqualified personnel/workforce and so on that can lead to ineffective or poor project performance. Tanzania’s insurance industry poor budget and schedule performance informed the need for this study. The objective of the study was to investigate the extent of the risk management practices at planning phase and the effect of these practices on project cost and schedule performance.

The risk management practices at insurance project planning phase were identified as risk identification and profiling, insurers/actuaries selection, environment selection and validation, needs identification and validation and cost and schedule development. The study targeted actuaries, insurance professionals, project managers and consultants, clients and government. The study used both qualitative and quantitative methods of data collection. Literature review, physical and email delivered questionnaires and structured interviews were used to collect data. Results also revealed that the involvement of stakeholders in projects is either high for some projects or low in others. For projects with high stakeholder involvement, it becomes beneficial as it indicates that the project performance is effective while when the stakeholder involvement is low, it indicates the oppoenvironment.

The research project indicated that risk management practices at planning stage had a large effect on project performance. Projects done by qualified insurance professionals and consultants who had risk management knowledge and who used formal risk management practices had better performance in terms of communication, functionality, cost and time. Involving the consultants in environment selection and validation in insurance projects was discovered to be a key risk management practice to mitigate the risks of costs and time variation due to unfavorable environment conditions.

On top of that, results have also revealed that the capacity of projects and project managers in managing risks is moderate, which entails the fact that this capacity is at a medium level and so more practice and measures are to be taken so that this capacity is increased. Various project team members had different chances in managing the various risks. The client had the best chance to manage environment selection risks, delayed payment risks, changes in project conditions, quality of contract documents risks and, changes in design risks according to the findings of this research project. The consultants had the best chance in managing the unsuitable design solution risk and delays in design. The combined effort of the whole team was the best chance in mitigation the risks of cost variations. The professionals were best placed to manage risks on availability of materials.

The results also revealed that in some cases, some organizations take on projects that above or beyond their capacity (too ambitious) and hence they end up being unable to deliver the right performance or the expected objectives. Also that the project managers and staff are aware of the measures that their organizations should take so that effective project performance can be achieved more. The needs identification process happened before planning and design in majority of the projects. Moreover, projects were conceived for various reasons; customer request, business need and social need ranking high. The end users and project beneficiaries were not involved in the needs validation process in the projects. Compliance with external politics and organization strategies were key criteria used in project needs validation. The research project found out that expected income and return on investment as criteria for project validation was not used in the projects. This was surprising and contrary to expectations. This could be a result of external political strategies being key criteria in project needs validation. There were change orders in most projects and their effect was fairly large.

The preliminary budget development process in most projects was done without the involvement of professionals. There were some projects that were closed before implementation works, as the initially anticipated budget was not feasible. In many projects, insurance professionals and consultants were forced to work within unfavorable client financial schedules resulting in incomplete and poor design and delay in insurance works. There was strong relationship between designs done in less than two months and the occurrence of variations, change orders and design changes during implementation.

## Conclusions

In conclusion, the research projected identified an ineffective level of risk management practices in insurance project in Tanzania. This was because most practice was informal, and most of the project team members had not studied project management. The impact of identified but unmitigated risks was found to be high. Various project team members had different chances of mitigating the various risks but the client had the best chance in managing most of the risks. The relationship between ORM and project performance is very crucial and important in running any project for it to deliver all the objectives and what is expected from it. Even though this important relationship is known by most, some tend to ignore it and only make use of ORM only when risks occurs and not use it throughout the project.

The levels and principles of ORM play an important role in ensuring that the objectives of the project are met at an expected rate and on time and hence, ensuring effective project performance. In Tanzania, Insurers and actuaries were not appointed prior to the decision process in most projects. This meant that most projects were conceived with inaccurate information since there was no professional input at the planning phase in most projects. Consequently, in majority of the projects, the client alone, did environment selection and validation and the needs identification and validation, which often happens at planning phase. This lead to unsuitable sites that increased cost and time for the implementation works. The end users were not involved in needs identification and validation process in many projects surveyed.

Compliance with external political strategy and organization strategies was the main criteria in needs identification. There were change orders in majority of the projects arising from change in needs during implementation. The cost and schedule development process was inefficient in many projects and led to inaccurate estimates that later negatively affected project performance. Most estimates for time and cost were done early at project planning without the active role of skilled professionals.

## Recommendations

Based on the findings, the following recommendations are hereby suggested:

1. Awareness on the relationship between ORM at the planning stage and project performance should be provided to all project managers and their project personnel by their organizations; explaining to them the importance of conducting ORM throughout the project life cycle and what role it plays towards effective project performance.
2. The research project identified ineffective risk management practice at planning phase as a major cause of poor project performance. This research project recommends a formal and structured risk management practice during project planning and with the involvement of insurance professionals and end users. The researcher recommends that risk management is conducted in continuous development for all professionals in Tanzania and especially those in insurance projects planning and procurement departments of both private and government developers. This research further recommends that qualified project managers who are either insurers or actuaries be included in all insurance projects environment selection, needs identification and in preliminary budget and schedule development. This research project recommends that major developers should retain the services of competent consulting insurers or actuaries throughout and this consultant should sit at top level decision meetings to advice on implementation issues. End users and beneficiaries should be involved in needs identification at the early stages of a project.
3. In addition, the organizations conducting the projects should use the four KPIs; Direct input, bottom line impact & return on investment, on-time & on-budget and lastly, stakeholder support and engagement, which can entail the overall performance of the project and the effect it has on its objectives.
4. In addition, the management should target specific focus areas at the junction between deployment and project close out in managing risks that would affect the entire project.
5. To target and ensure that the expected objectives of the stakeholders or consumers are either achieved or exceeded. This will reveal effective project performance of the projects conducted.
6. ORM should be conducted throughout the project life cycle and not wait until risks actually occur, as risks are inevitable and at the same time, unpredictable.
7. This research recommends that more research is needed in this area to produce a comprehensive insurance project-planning guide for use by developers and government departments. This research found a weak correlation between the insurers and actuaries selection process, which is contrary to the literature reviewed. There is therefore a need for further research on the effects of the insurers and actuaries selection process on project performance. This research project identified that many project managers had not studied risk management. There is therefore a need for further research on the training gaps and education.
8. This research project identified that many projects were initiated due to social and political needs. There is a need for further research on the factors affecting the performance of social and political projects in Tanzania. This research identified that the criteria for return on investment and profitability was not used in the validation process in many projects. There is therefore need for further research on the economic sustainability of the current investments in building insurance projects in Tanzania. This research project recommends for further research on the challenges faced by developers in budget and schedule development for insurance projects in Tanzania. There is need to identify the extent and use of budget reserve and contingency sum and its effect on the insurance project performance.

## Limitation of the Study

Despite valuable insight uncovered by this study, it should be read with few limitations. First, data was collected from a single sector or industry in Tanzania out of more than 26 sectors and the companies involved were the ones in Dar es Salaam only out of 30 regions all over Tanzania. The sample size is small which does not represent population of the Insurance industry staff.

In future, larger sample may be opted. Second, some employees were reluctant to fill questionnaires they deemed unsafe when reporting the answers and luck of ample time to fill out the questionnaires. This posed a great challenge to the research, as the researcher had to take a longer time to find employees who were willing to give out adequate information.

## Areas for Future Research

The study assessed the relation between Operational Risk Management at the planning stage and Project performance in the Insurance industry. Suggestions for future studies are provided accordingly. Other researchers should consider investigating the relationship between ORM and project performance in other sectors or industries for making comparative study on the findings. Furthermore, due to contradiction of results with other researchers’ arguments, future research may further study and analyze this relationship using intermediate variables to get a clear picture of the antecedents and consequences of project performance and also, this relationship to be studied in other stages of project conduction.

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# APPENDICES

Appendix 1: Questionnaire

**Part 1: Introduction**

Dear respondent,

The purpose of this survey is to get a better understanding of the relationship between Operational Risk Management and Project Performance. The study is purely academic and the results of the survey will help me in writing a dissertation on **Operational Risk Management at the Planning Phase and Project Performance in Tanzania** as part of the requirement for the award of a Masters in Project Management. You were sampled as a person suitable to provide the information required. I request you to spare part of your valuable time to fill this questionnaire. The information you provide will be treated ethically with the degree of anonymity and confidentiality it deserves.

Sincerely,

Mwakalapa, Elizabeth Brown

Masters in Project Management (MPM)

Open University of Tanzania

**Part 2: Questionnaires- Personal information**

1. Your age (please tick the appropriate answer)
2. 20-30 years ( )
3. 31-40 years ( )
4. 41-50 years ( )
5. 51-60 years ( )
6. 61 + ( )
7. Gender (please tick the relevant answer)
8. Male ( )
9. Female ( )
10. Marital Status (circle the relevant answer)
11. Single b. Married c. Divorced/Divorcee d. Widow/widower
12. Academic qualifications (please tick the relevant answer)
13. Certificate ( ) b. Diploma ( ) c. Bachelor’s degree ( )
14. Master’s degree ( ) e. Doctorate and above ( )
15. How long have you been working in this organization? (tick the relevant answer)

a. Less than 4 years ( ) b. 4-10 years ( )

c. 11- 16 years ( ) d. Above 16 years ( )

**Part 3: Operational Risk Management and Project Performance**

1. How many projects has your company conducted to date? (tick the relevant answer)
2. Less than 2 ( )
3. 2 - 5 projects ( )
4. 6 - 10 Projects ( )
5. 11 – 15 Projects ( )
6. More than 15 Projects ( )
7. In regards to your experience, do you think Operational Risk Management (ORM) has any relationship to Project Performance success? Yes ( ) No ( )
8. Please provide a short explanation of your answer on question number 7 above: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. What are the risks that your organization faces when conducting different projects?
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. What are the impacts/effects that these risks cause to the success of project performance in your organization?
16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
18. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
19. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
20. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Do you think some of these risks are beneficial to the projects of the organization?

Yes ( ) No ( )

1. If your answer above is Yes, please assist with an explanation on how these risks can be beneficial to the projects or organization. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Is there an importance of conducting risk identification in performing projects?

Yes ( ) No ( )

1. Indicate below the impact of project cost on the identified risks. Pleas tick the appropriate impact.

|  |  |
| --- | --- |
| CRITERIA | IMPACT |
| Fairly Large (20 – 40% variation) |  |
| Fairly Small (10 – 20% variation) |  |
| Very Large (over 40% variation) |  |
| Very Small (1 – 10% variation) |  |
| Risk did not occur |  |

1. Select the timing and method of insurers and actuaries’ selection below. Please tick the appropriate criteria.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Method of Selection** | | | |
| **Time of Selection** | **LCBS** | **QBS** | **QCBS** | **Single Source** |
| Feasibility stage |  |  |  |  |
| Before project planning |  |  |  |  |
| For supervision of works |  |  |  |  |

1. What are the measures that your organization can adopt so ensure successful performance of projects conducted?
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. What do you suggest are the risk management tools and techniques that your organization can adopt in order to have effect project performance?
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. On the scale from 1 to 5, rate the following statements as they relate to your organization in conducting projects. Please tick ( ✓) the appropriate answer. (**1= very low, 2 = low, 3= moderate, 4= high, 5 = very high**)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SN** | **Issues** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| 15 | How would you rate the capacity of projects (in general) in managing risks? |  |  |  |  |  |
| 16 | What is the capacity of the project managers in your organization in managing risks? |  |  |  |  |  |
| 17 | How would you rate the involvement and engagement of project stakeholders in general? |  |  |  |  |  |
| 18 | How would you evaluate your organization’s risk management tools in ensuring successful project performance? |  |  |  |  |  |

1. Evaluate the performance of projects conducted generally in your organization based on the perceptions provided below. Please tick your appropriate answer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Perception** | **Functionality** | **Time** | **Cost** | **Communication** |
| Very Good |  |  |  |  |
| Fairly Good |  |  |  |  |
| Fairly Bad |  |  |  |  |
| Very Bad |  |  |  |  |

1. Please select the appropriate measure for needs identification in reference to the provided timings/phases of a project below;

|  |  |
| --- | --- |
| **Time** | **Project** |
| Planning |  |
| Type of project/Design |  |
| Implementation |  |

1. Please select the correct criteria for budget and schedule development versus time/ phases of a project. Please tick the appropriate answer.

|  |  |  |
| --- | --- | --- |
| **Phase** | **% Budget Development** | **% Schedule Development** |
| Planning |  |  |
| Type of project/design |  |  |
| Implementation |  |  |

***Thank you for your time and co-operation. Your opinions are highly valued. Please be assured that your answers will remain anonymous.***

Appendix 2: Interview

Dear respondent,

The purpose of this survey is to get a better understanding of the relationship between Operational Risk Management and Project Performance. The study is purely academic and the results of the survey will help me in writing a dissertation on **Operational Risk Management at the Planning Phase and Project Performance in Tanzania** as part of the requirement for the award of a Masters in Project Management.

You were sampled as a person suitable to provide the information required. I request you to spare part of your valuable time to answer these questions. The information you provide will be treated ethically with the degree of anonymity and confidentiality it deserves.

Sincerely,

Mwakalapa, Elizabeth Brown

Masters in Project Management (MPM)

Open University of Tanzania

1. Your age (please tick the appropriate answer)
2. 20-30 years ( )
3. 31-40 years ( )
4. 41-50 years ( )
5. 51-60 years ( )
6. 61 + ( )
7. Gender (please tick the relevant answer)
8. Male ( )
9. Female ( )
10. Marital Status (circle the relevant answer)
11. Single b. Married c. Divorced/Divorcee d. Widow/widower
12. Academic qualifications (please tick the relevant answer)
13. Certificate ( ) b. Diploma ( ) c. Bachelor’s degree ( )
14. Master’s degree ( ) e. Doctorate and above ( )
15. How long have you been working in this organization? (tick the relevant answer)

a. Less than 4 years ( ) b. 4-10 years ( )

c. 11- 16 years ( ) d. Above 16 years ( )

1. How many projects has your company conducted to date? (tick the relevant answer)
2. Less than 2 ( )
3. 2 - 5 projects ( )
4. 6 - 10 Projects ( )
5. 11 – 15 Projects ( )
6. More than 15 Projects ( )
7. In regards to your experience, do you think Operational Risk Management (ORM) has any relationship to Project Performance success? Yes ( ) No ( )
8. Please provide a short explanation of your answer.
9. What are the risks that your organization faces when conducting different projects?
10. What are the impacts/effects that these risks cause to the success of project performance in your organization?
11. Do you think some of these risks are beneficial to the projects of the organization?

Yes ( ) No ( )

1. If your answer above is Yes, please assist with an explanation on how these risks can be beneficial to the projects or organization.
2. Do you think there is an importance of identifying risks when conducting different projects?
3. What is the level of impact of project cost on risk identification in your organization?
4. Please state the method of selecting insurance professionals and actuaries on the following phases of a project;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Method of Selection** | | | |
| **Time of Selection** | **LCBS** | **QBS** | **QCBS** | **Single Source** |
| Feasibility stage |  |  |  |  |
| Before project planning |  |  |  |  |
| For supervision of works |  |  |  |  |

1. Given the below criterion for project performance in your organization, which one would you say fits in what perception?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Perception** | **Functionality** | **Time** | **Cost** | **Communication** |
| Very Good |  |  |  |  |
| Fairly Good |  |  |  |  |
| Fairly Bad |  |  |  |  |
| Very Bad |  |  |  |  |

1. In what time of the project do you think need identification is to be conducted?

|  |  |
| --- | --- |
| **Time** | **Project** |
| Planning |  |
| Type of project/Design |  |
| Implementation |  |

1. Please select the phase through which budget and schedule development is to be conducted in a project.

|  |  |  |
| --- | --- | --- |
| **Phase** | **% Budget Development** | **% Schedule Development** |
| Planning |  |  |
| Type of project/design |  |  |
| Implementation |  |  |

1. What are the measures that your organization can adopt so ensure successful performance of projects conducted?
2. What do you suggest are the risk management tools and techniques that your organization can adopt in order to have effect project performance?

On the scale from 1 to 5, rate the following statements as they relate to your organization in conducting projects. Please tick ( ✓) the appropriate answer. (**1= very low, 2 = low, 3= moderate, 4= high, 5 = very high**)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SN** | **Issues** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
| 15 | How would you rate the capacity of projects (in general) in managing risks? |  |  |  |  |  |
| 16 | What is the capacity of the project managers in your organization in managing risks? |  |  |  |  |  |
| 17 | How would you rate the involvement and engagement of project stakeholders in general? |  |  |  |  |  |
| 18 | How would you evaluate your organization’s risk management tools in ensuring successful project performance? |  |  |  |  |  |