RISK MANAGEMENT AND project PERFORMANCE OF UNDP PROJECTS IN SOMALIA: A CASE STUDY OF MOGADISHU TO CADALE ROAD CONSTRUCTION PROJECT

BY

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APRIL, 2019

DECLARATION

I, **MAHAD YUSUF AHMED** declare that this dissertation is my original work and has not been presented for a Degree or any other academic award in any University or Institution of learning

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APPROVAL

"I confirm that the work in this Dissertation is carried out by the Candidate under my supervision"

Signature: ..... **Date:** 13/04/2017

Name of Supervisor: DR Edgar Mwesigy:

DEDICATION

I dedicate this work to my uncle Mohamud Dhudi Farah and my brother Allamagan Yusuf Ahmed , for the unconditional support and encouragement to my education.

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At first I am grateful to Allah for giving me strength to complete my master's thesis. I would like to acknowledge my supervisor. Dr. MWESIGYE EDGAR for the guidance. Assistance suggestions and constant support on this study. your assistance has been instrumental. special thanks goes to my classmates and friends with whom I weathered through the storms, giving each other encouragement and for their positive criticism.

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may Allah reward you all.

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ABSTRACT

This study sought risk management and performance of UNDP projects in Somalia: a case study of Mogadishu to cadale road construction project. The objectives were; To establish relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, To assess the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, and. To assess the relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, the study was based on Prospect theory of Tversky&Kahneman2013. The study applied a correlation research design to examine the relationship between risk management and project performance of Mogadishu to Cadale Road Construction Project. The study applied the quantitative data involved information from the questionnaires only. The qualitative and quantitative approaches were employed based on the Mogadishu to Cadale Road Construction Project. The quantitative technique was used to collect and analyze data on the risk management. The qualitative approach was used performance of Mogadishu to Cadale Road Construction Project. This design was used because it brings out clearly the relationship between risk management and project performance. The study findings revealed that the average Mean was 2.23 which was equivalent to low. This implies that there is a close relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. It was also found out that the average mean of the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia was 2.41. This implies that there was a close relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. The study findings revealed that the average mean of Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia was 1.90 which was. This implies that there is a close relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. The study concludes that risk management in the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives. The study concludes that during the project, risk monitoring and control is the processes of keeping track of the identified risks, monitoring the residual risks and identifying new risks. This process was also ensure the execution of the risk plan and continually evaluate the plan's effectiveness in reducing risk. Resource allocations can also be monitored as these were have been pre-planned and, where appropriate, allocated to the agreed actions. The study concludes that risk response is the action to be taken towards the identified risks and threats. The response strategy and approach chosen depend on the kind of risks concerned. Other requirements are that the risk needs to have a supervisor to monitor the development of the response, which was agreed by the actors involved in this risk management process.

CHAPTER ONE
GENERAL INTRODUCTION

1.0 Introduction

This chapter presented the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions and assumptions, scope of the study, significance of the study, the justification of the study and the operational definitions of terms and concepts as applied to suit the context of the study.

1.1 Background of the Study

The Background of the study was presented UNDP PERFORMANC. In this 10th annual performance report of the UNDP Global Environmental Finance Unit, we show how investments in the Sustainable Development Goals (SDGs)—on affordable and clean energy, climate action , life below water , and life on land —accelerate the achievement of other goals aimed at eradicating poverty, achieving zero hunger , achieving gender equality , reducing inequalities , and building strong institutions .

Throughout this report, we weave a story of transformational change that can be realized by addressing the key drivers of environmental degradation through multifaceted and integrated approaches. From the global to the local level, the impacts emerging from our work demonstrate progress being made toward realizing environmental and development benefits.

Our work contributes to advancing peace building and infrastructure development.

2017 UNDP-GEF Annual Performance Report

1.1.1 Historical perspective

Globally, risk management has remained to be one of the most essential tools to boost project performance throughout history. All projects across the globe are inherently risky because they are unique, constrained, complex, based on assumptions, and performed by people. As a result, project risk management must be built into the management of projects and should be used throughout the project lifecycle (Olwale& Sung, 2010).

In Africa, the first large organization was the transcontinental railroad, which began construction in the early 1870s that practiced traditional risk management. Suddenly, business leaders found

themselves faced with the daunting task of organizing the manual labor of thousands of workers and the manufacturing and assembly of unprecedented quantities of raw material. The 1950s marked the beginning of the modern Risk management era. Again, in South Africa, prior to the 1950s, projects were managed on an ad hoc basis using mostly Gantt Charts, and informal techniques and tools.

In Somalia, Benadir/Mogadishu pipeline project was considered to be the most expensive private project in 1970s (Olwale& Sung, 2010). With over 10billion dollars of budget and 800 miles of pipeline, this project required top notch project managements abilities to be completed and perfected. During the planning phase, the owner assigned the whole project to a Construction Management company while retaining the centralized decision making ability. Initially the hierarchy from top to bottom consisted of 9 layers which created many risks and conflicts between various subcontractors and other participants of the project. There were also delays made in decision making process because of various construction sites and count of subcontractors in Somalia (Tversky&Kahneman, 2013).

Risk within the Mogadishu to Cadale construction project is generally perceived as an occurrence that impacts the major objectives of the project, namely cost, time and quality. The other fact is that just like most construction projects, the Mogadishu to Cadale construction project is more prone to risk and uncertainty than any other project in Somalia (Tah&Carr 2000; Othman 2008). This could be due to the inherent idiosyncrasies of the construction sector, such as considerable complexity, dynamic nature vulnerability to project environment, tight scheduling and the immense size and volume of the projects. The impacts of these factors are further exacerbated due to the involvement of a wide range of stakeholders and parties at every stage of the product delivery. Projects risks might influence every aspect of a project to the extent that these risks could hamper meeting the main objectives of the project (Tadayon et al. 2012)

1.1.2 Theoretical perspective

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 typical person makes in a 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, 1979). 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, 1979). 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).

1.1.3 Conceptual perspective

Risk management refers to an important aspect of project management (Choge&Muturi, 2014). According to Tversky&Kahneman (1979), risk management is one of the ten knowledge areas in which a project manager must be competent. Project risk is defined by Project Management Institute (PMI) as, "an uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives. Project Risk is the possibility of loss or injury. Project risk is an uncertain event or condition that, if it occurs, has an effect on at least one project objective.

Performance is completion of a task with application of knowledge, skills and abilities (Choge&Muturi, 2014). In work place, performance or job performance means good ranking with the hypothesized conception of requirements of a task role, whereas citizenship performance

means a set of individual activity/contribution (prosocial organizational behavior) that supports the organizational culture. This important concept is used throughout the business and professional world as a means of understanding and improving company, department, and personnel performance. There are many ways to conduct these reviews, most geared towards analyzing practices and data in order to improve procedure (Choge&Muturi, 2014).

1.1.4 Contextual perspective

Mogadishu to Cadale Road Construction project has been under construction for 6 years while the contract period was less than three years. The studies and design for the proposed project were done at the cost of 1.8 billion USD. The studies indicated an estimated construction cost of 191.5 Million Dollars (OAG, 2013). The project had been significantly delayed (OAG, 2017). The works were expected to be completed by December 2016 but by the time of audit in October 2016, work was still in the early stages and only 17.9% of the road construction works had been completed (OAG, 2017).

Just like most projects, Mogadishu to Cadale Road Construction project suffered overrun in cost, delayed schedule, failure and even abandonment. They equally did not meet the quality specifications for which they were embarked upon. The cost of failure made it important to understand what makes a project successful. The Project was inherently risky because it was unique, constrained, complex, based on assumptions, and performed by people. As a result, risk management was built into the management of projects and was used throughout the project lifecycle.

As a result, the performance of Mogadishu to Cadale Road Construction project lied in effectively managing the risks involved. The pivotal role of risk management for the construction project is under-pinned by Baloi and Price (1976, p. 262), who postulated that there is a direct relationship between effective risk management methods and project performance since risks are assessed by their potential effect on the objectives of the project (Choge&Muturi, 2014). For the purpose of this study, risk management is considered as the whole activities geared towards spotting risky situations, along with developing the strategies to reduce the probability of occurrence and impacts of risks.

1.2 Statement of the problem

Success in road construction project is indicated by its performance in the achievement of project time, cost, quality, safety and environmental sustainability objectives (Zhou, Zhang, & Wang, 2015). Despite the efforts by all players in the construction industry, many construction projects in Somalia and generally in the region and the world run a high risk poor performance by being well over budget and significantly late(Choge&Muturi, 2014).

Currently in Mogadishu, the road construction industry generally has poor cost and schedule performance. For instance Mogadishu to Cadale Road Construction project has been marred with cost overruns (Choge&Muturi, 2014).The risks in the project stems from poor scope definition, poor estimating and development of a budget based on incomplete data. The project was supposed to be completed between 2012-2016. However money was overspent, this project did not get complete.

One of the biggest challenges in construction project management is undefined goals., Another challenges in construction project management is changing scope. Also known as scope creep, it can arise from a lack of defined goals. It can be a huge reason why projects end up delayed or over budget. A good project manager can communicate concerns to scope changes to the stakeholders. Thereby informing them of all the changes to schedule and budget it will cause. The construction industry fails to manage risk, since the project manager is responsible for identifying potential problems and finding ways to mitigate it. They need to gather input and plan ways to prevent the project from veering off course. Without this, the project will most certainly go over budget or delayed.

The risks at construction project planning stage include poor scope definition, Undefined Goals and development of a budget based on incomplete data. The risk management practices required at this stage include risk profiling and risk identification, the construction site review and risk monitoring and control (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. Therefore, this study sought to establish the relationship between risk management and project performance using Mogadishu to Cadale Road Construction project as a case study of UNDP Mogadishu- Somalia

1.3 Purpose of the study

The purpose of the study was to establish the relationship between risk management and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia.

1.4 Objectives of the study

i. To establish relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project,
ii. To assess the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project,
iii. To assess the relationship between risk response and project performance of Mogadishu to Cadale Road Construction project,

1.5 Research questions

i. What is relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project,?
ii. What is the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project,
iii. What is the relationship between risk response and project performance of Mogadishu to Cadale Road Construction project,?

1.6 Scope of the Study

1.6.1 Geographical Scope

The study was carried out from UNDP headquarters and reason I choose Mogadishu is the main branches of UNDP working in Mogadishu-Somalia. Mogadishu is the largest city in Somalia and the nation's capital. The study focused on Mogadishu to Cadale Road Construction Project. The projects aimed at constructing 180 kms of road from Mogadishu through Eelm'an and Warshiekh up to Cadale.

1.6.2 Content Scope

The study focused on relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia, relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia, relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia, the relationship between needs identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia.

1.6.3 Time Scope

The study covered a period of 5 years i.e. 2013-2018 so that the enough data would be got for the research. This was because it was during this time gap when the Mogadishu to Cadale Road Construction project was executed.

1.6.4 Theoretical scope

The study was based on Prospect theory of Tversky&Kahneman2013. This theory was designed to better describe, explain, and predict the choices that typical person makes in a 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, 1979). 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.

1.7 Significance of the Study

The following are the anticipated beneficiaries and ways through which the parties will benefit:

The results of this research are expected to indicate the correlation between risk management practices during the planning stage and the construction 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 the results of this study will inform policy makers and property developers on the benefits of the risk monitoring and control and the risk response 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 architects or engineers on the needs identification and validation process and in the preparation of the preliminary budget and schedule that is submitted to the Ministry of Finance for budgetary allocation.

1.8 Definitions of Key terms

Risk management

Risk management involves understanding, analyzing and addressing risk to make sure project achieve their objectives. So it must be proportionate to the complexity and type of project involved. Enterprise Risk Management (ERM) is an integrated and joined up approach to managing risk across a project and its extended networks.

Performance

Performance is completion of a task with application of knowledge, skills and abilities (OAG, 2013). In work place, performance or job performance means good ranking with the hypothesized conception of requirements of a task role, whereas citizenship performance means a set of individual activity/contribution

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

The study reviewed literature from various scholars on the major variables of the study. This chapter reviews the literature concerning theories of decision making under uncertainty, some of the risks faced in the construction industry, some risk analysis techniques and risk response practices. The chapter further reviews literature related to the independent and dependent variables in the research.

2.1 Theoretical Review

The study was based on Prospect theory (Tversky&Kahneman, 1979). Prospect theory is a theory in cognitive psychology that describes the way people choose between probabilistic alternatives that involve risk, where the probabilities of outcomes are known (=/uncertainty = do not know the possible outcomes and/or probabilities). The theory states that people make decisions based on the potential value of losses and gains rather than the final outcome, and that people evaluate these losses and gains using some heuristics. The model is descriptive: it tries to model real-life choices, rather than optimal decisions, as normative models do.

The theory was created in 1979 and developed in 1992 by Daniel Kahneman and Amos Tversky as a psychologically more accurate description of decision making, compared to the expected utility theory. In the original formulation, the term prospect referred to a lottery. The paper "Prospect Theory: An Analysis of Decision under Risk" (1979) has been called a "seminal paper in behavioral economics".

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 typical person makes in a 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.

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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, 2011). Many scholars have defined risk: Wideman Most definitions include the factors of chance or probabiiity 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 (Kerzner, 2014).

Risk impacts construction 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 to achieve the objective of the project, within

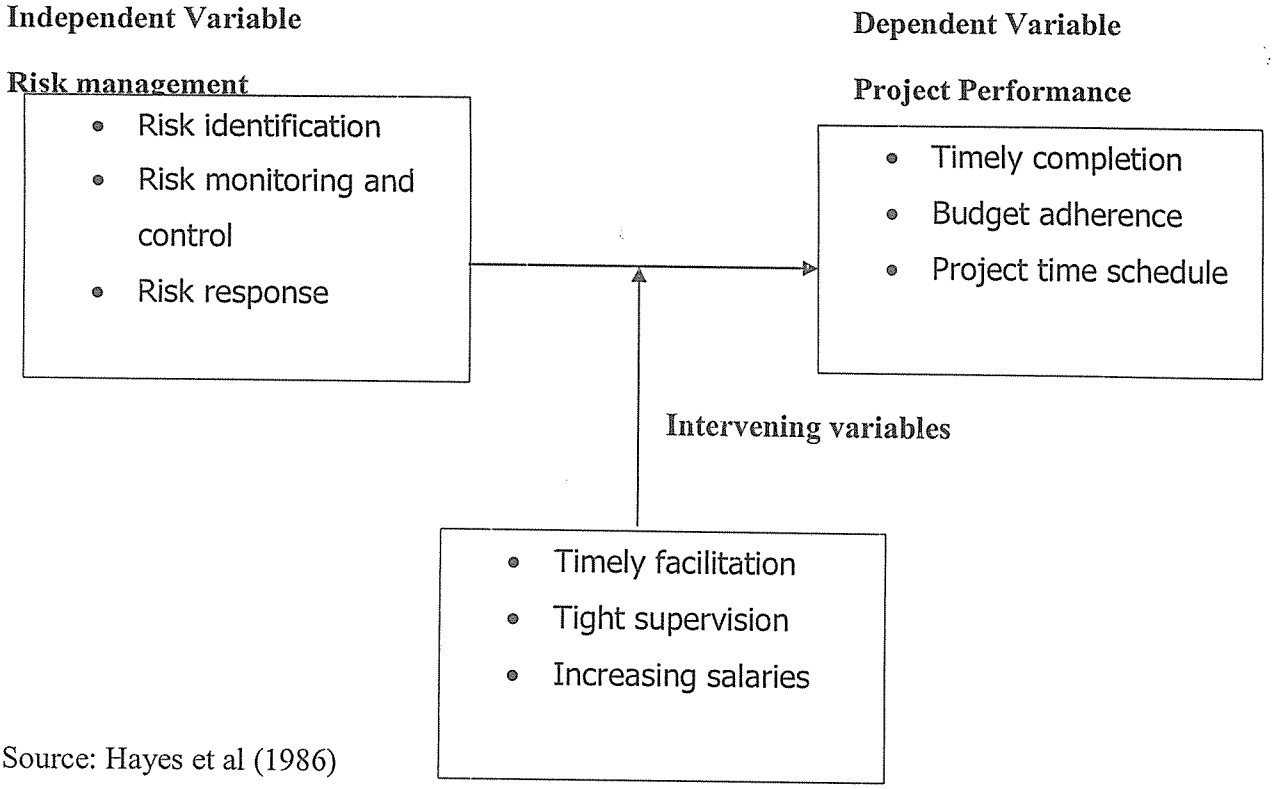
the constraints of the project (Carbone, T. A., & Tippet, D. D. (2004).). Risk management includes planning for risk, identifying risks, analyzing risks, developing risk response strategies, and monitoring and controlling risks to determine how they have changed (Kerzner, H. (2001). Since risk affects the achievement of project objectives, risk management is one aspect of sound project management.

According to Kerzner, H. (2001). 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 Kerzner, H. (2001). 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, 2014).

The contingency amount has for a long time been added to the estimated construction 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. Ceric, (2014) has discussed the use of project reserves and contingency amounts as risk management strategies in construction projects. Ceric, A. (2003). developed a systematic approach to managing project budget risks during project appraisal.

2.2 Conceptual Frame work

The conceptual framework diagrammatically shows the relationship between the different variables in the study. The independent variable was perceived as risk management and dependent variable was performance of road construction projects



Source: Hayes et al (1986)

Figure 2. 1: Conceptual Frame work

The conceptual framework above indicates that the independent variable was risk management and this concerned; risk identification, risk monitoring and control and risk response and the dependent variable was project performance and it focused on; timely completion, budget adherence and project time schedule.

The conceptual framework is derived from the literature review that has identified the key risks at planning stage and suggested risk management practices. Risk management in Engineering Construction (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).

2.3 Related Literature

The related literature review be reviewed basing on objectives.

2.3.1 Risk Identification and project performance

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 (Ahmed &Kayis, 2015). 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 the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives. Major decisions and influence on the choice of alignment and selection of construction methods are made at the early stages of a project, making risk management at this stage very essential (Assaf& Al-Hejji, 2013).

The construction industry involves many players and is inherently complex. The major classifications of construction works are: housing, non- residential building, heavy, highway, utility, and industrial (Carbone & Tippet, 2014). Construction projects may be new construction or renovation and rehabilitation of existing infrastructure facilities. Most construction work in Somalia involves new public and private infrastructure projects. Large construction projects are exposed to risks arising from planning, design and construction 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 (Ceric, 2014). 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 construction project and the clarification of risk responsibilities (Chapman & Ward, 2014). 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, 2014).

The school of finance and banking learning complex project started in 2013 but was only completed in the year 2013 (Chapman & Ward, 2015). The project was tendered for construction in the 2015 but the contract was not awarded, as the client had not secured enough funding for the project. The construction works started in 2014. The project time was extended by one year and the construction cost went up by 20% due to unforeseen ground conditions. The challenges in the project were mainly related to risk response and the preliminary budget and schedule development processes.

Risk and uncertainty can potentially have damaging consequences for the construction projects (Chapman, 2011). Therefore, risk analysis and management continue to be a major feature of the project management of construction 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 (Choge&Muturi, 2014).

Risk management is one of the nine knowledge areas propagated by the Project Management Institute (Clough et al., 2012). Risk management in the construction 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. In the construction industry, risk is often referred to as the presence of potential or actual threats or opportunities that influence the objectives of a project during construction, commissioning, or at time of use (Cretu et al., 2011).

Mitigating risk by lessening their impact is a critical component of risk management. Implemented correctly, a successful risk mitigation strategy were 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 (Eskesen et al., 2014). The ability to govern or to set up control mechanisms for costs, schedule and quality in a construction project reduces rapidly as you move through the project lifecycle. The control activities at the planning stage are risk profiling, architect and engineer selection process, architect and engineer contract

review, risk response, need identification and validation and preliminary budget and schedule development (Fageha, 2014).

2.3.2 Risk monitoring and control and project performance

During the project, risk monitoring and control is the processes of keeping track of the identified risks, monitoring the residual risks and identifying new risks (Fageha&Aibinu, 2014). This process were also ensure the execution of the risk plan and continually evaluate the plan's effectiveness in reducing risk. Resource allocations can also be monitored as these to have been pre-planned and, where appropriate, allocated to the agreed actions. Immediate risk actions should be built in with the other project activities as an integral part of the overall project management plan. Other actions were be dependent upon the risk materializing and be triggered by the occurrence of risk metrics and milestone events.

Risk monitoring and control also records risk metrics associated with implementing contingency plans and needs to be, of course, an ongoing process for the duration of the project (Jajac et al., 2013). Naturally the risks change as the project matures; new risks may develop or the anticipated risks disappear.

Risk control may involve choosing alternative strategies, implementing a contingency plan, taking corrective action(s), or even the re-planning the project (Kerzner, 2014). It is important for the risk response owner to report periodically to both the project manager and the risk team leader on the effectiveness of the plan, any unanticipated unwanted effects and any mid-project programme correction needed to mitigate the risk occurrence.

Some activities of risk monitoring and control use triggers to indicate that a risk is occurring as defined during the risk response planning stage. This is one of the outputs of the action plan and as such triggers are events or consequences that cause activation of the corrective actions: a fallback plan, updating of the risk plan and use of the risk identification checklists. The concept of monitoring and feedback of risk information is a standard systems approach (Klemetti, 2013).

Monitor and Control Risk is the process of executing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project (Klemetti, 2013). Planned risk responses that are included in the project management plan are executed during the life cycle of the project, but the project work was

continuously monitored for new and changing risks. The Monitor and Control Risk process applies techniques, such as variance and trend analysis, which require the use of performance data generated during project execution (Neumann & Morgenstern, 2014).

While the project management team and or the project management team leader is doing its careful and complete characterizations of risk, they often find themselves in a position in which they realize that a particular component as to the project and or a particular facet of that project does in fact come with a set or series of inherent risks (Clwale& Sung, 2010). After all of these likely and potential risks have been properly organized and categorized, it is up to the project management team and or the project manager to effectively determine the best way to deal with these risks. The entire process of identifying these risks and establishing a method of dealing with them can be referred to as risk monitoring and control. This process refers to the process of detailing and tracking identified risks as well as monitoring residual risks, also the identification of any new risks that may arise. This also includes the execution of business response plans, as well as making a thorough evaluation of their effectiveness (Smith, 2013).

2.3.3 Risk response and project performance

Risk response is the action be taken towards the identified risks and threats. The response strategy and approach chosen depend on the kind of risks concerned. Other requirements are that the risk needs to have a supervisor to monitor the development of the response, which was agreed by the actors involved in this risk management process. Risk response is the process of developing options and determining actions to enhance opportunities and reduce threats to the project's objectives. According to Smith, (2013) having identified and analyzed risks, it is essential that something should be done in response.

As a result, many believe that the Risk Response Planning phase is the most important in the risk process, since this is where the project team gets a chance to make a difference to the risk exposure facing the project (Walewski et al., 2013). It is usually the responsibility of each risk owner to decide what type of response is most appropriate, though they were often seek help and advice on this. When developing risk responses, it is important to adopt a strategic approach in order to focus attention on what is being attempted.

Winch (2002) claims that the lower impact the risk has, the better it can be managed. Most common strategies for risk response are: avoidance, reduction, transfer and retention (Wallace &Blumkin, 2015). Beyond those types of responses, Winch (2002) describes that sometimes it is difficult to take a decision based on too little information. This may be avoided by waiting until the appropriate information is available in order to deal with the risk. This way of acting is called 'Delay the decision' but this approach is not appropriate in all situations, especially when handling critical risks. Those need to be managed earlier in the process.

If the risk is classified as bringing negative consequences to the whole project, it is of importance to review the project's aim (Walliman, 2011). In other words, if the risk has significant impact on the project, the best solution is to avoid it by changing the scope of the project or, worst scenario, cancel it. There are many potential risks that a project can be exposed to, and which can impact its success. This is why risk management is required in the early stages of a project instead of dealing with the damage after the occurrence of the risk (PMI, 2004). The avoidance means that by looking at alternatives in the project, many risks can be eliminated. If major changes are required in the project in order to avoid risks, Darnall and Preston (2010) suggest applying known and well developed strategies instead of new ones, even if the new ones may appear to be more cost efficient. In this way, the risks can be avoided and work can proceed smoothly because strategy is less stressful to the users.

Risk avoidance involves changing the project plan to eliminate the risk or the condition that causes the risk in order to protect the project objectives from its impact. This may be either by eliminating the source of risk within a project or by avoiding projects (Merna, 2004). It seeks to reconfigure the project such that the risk in question disappears or is reduced to an acceptable value as well as developing an alternative strategy that has a higher probability of success but usually at a higher cost associated with accomplishing a project task.

2.4 Related Studies

Projects are authorized as a result of a market demand, a business need, a customer request, a legal requirement or a social need (Wang et al., 2014). 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.

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 construction, 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, 2013). The change requests during the construction 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 were then referring to the different parties who can influence the project and those who were 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, 2013) 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, 2012). The project needs validation process involves a set of criteria against which the project was 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 risk management and by verifying the proposed project methodology.

These findings are similar to the findings by Fageha(2014) that 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 construction, delays, rework, cost overruns, schedule overruns, and project failure (Fageha&Aibinu, 2014).

It is apparent from the literature review that there is no common view of risks among the different players in construction projects. The value of systematic risk management of project activity is not fully recognized by the construction industry (Walewski, Gibson, & Vine, 2013). Since no common view of risk exists, owners, investors, designers, and constructors have differing objectives and adverse relationships between the parties are common.

The literature review shows that most researchers have focused on different techniques for risk management and the role of risk management in construction projects (Wang et al., 2014). While most literature acknowledge that risk management is a process, the issue of how this process should be adapted to the construction process is not very clear. Most literature approaches the construction process as an organized and standardized production process like manufacturing. However the construction process often has special features for every project that burden the process and makes changes leading to process improvement difficult.

2.5 Research Gap

There is research gap on risk management in construction projects in Somalia. Despite the volumes of literature on risk management in construction industry, delays and cost overrun remain an every day event in most construction projects. There is therefore need for research to develop a better understanding of what effective risk management is in construction 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 aimed to contribute to this knowledge and with an emphasis on Somalia construction industry.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter consisted of the procedures and methods used to conduct research on the study area. The chapter discusses how the respondents were selected, how data was collected and analyzed. The chapter also presented research design, population of study, sample size, sampling method, data sources, data collection instruments, reliability and validity of the instruments, data gathering procedure and data analysis.

3.2 Research Design

The study applied a correlation research design to examine the relationship between risk management and project performance of Mogadishu to Cadale Road Construction Project. The qualitative and quantitative approaches were employed based on the Mogadishu to Cadale Road Construction Project. The quantitative technique was used to collect data on the risk management. The qualitative approach was used to collect project performance of Mogadishu to Cadale Road Construction Project. This design was used because it brings out clearly the relationship between risk management and project performance.

3.3 Study Population

The study population involved the total population of 160 staff of Mogadishu to Cadale Road Construction Project under UNDP Somalia. These included; 20 Mogadishu to Cadale Road Construction Project risk managers, 70 Project beneficiaries, 42 Mogadishu to Cadale Road Construction Project staff and 28 UNDP Staff who were available (UNDP Human Resource Department, 2017).

3.4 Sample Size

The sample size of the study consisted of 65 respondents of the target population. This was so because the nature of data to be generated required different techniques for better understanding of the research problem under investigation. Besides, the approach is also commonly known for achieving higher degree of validity and reliability as well as eliminating biases as per Amin (2012).

The study used Sloven's formula to determine the sample size of the actual respondents. Sloven's formula states: $n = \frac{N}{1+N(\alpha)^2}$

Where; = sample size; = target population; and = 0.05 level of significance

$$n = \frac{160}{1 + 160(0.025)^2}$$

$$n = \frac{160}{1 + 160(0.0025)}$$

$$n = \frac{160}{161(0.4025)}$$

$$n = 65$$

Table 3. 1 Showing Research Population

Type of population	**Target Population**	**Sample Size**	**Sample Procedure**
Mogadishu to Cadale Road Construction Project risk managers	20	8	Purposive sampling
Project beneficiaries	70	35	Random sampling
Mogadishu to Cadale Road Construction Project staff	42	12	Purposive sampling
UNDP Staff	28	10	Purposive sampling
Total	**160**	**65**	

3.5 Sample Procedure

The researcher used a number of sampling which include; simple random sampling and purposive random sampling.

3.5.1 Simple Random sampling

The researcher used random sampling method. The Project beneficiaries, Mogadishu to Cadale Road Construction Project staff and UNDP Staff were randomly selected to give each an equal chance of representation. All respondents were assumed to have vital information on the subject matter of the research. Respondents who were willing to participate were approached.

3.5.2 Purposive sampling

The Mogadishu to Cadale Road Construction Project risk managers were purposely selected because the respondents were considered very knowledgeable about risk management and performance of road construction projects of UNDP in Somalia.

3.6 Sources of Data

Both primary and secondary data collection methods were used to collect relevant data to the study. Data collection methods that were considered in such a way that relevant information was collected as much as possible with little inconvenience to respondents.

Primary data means first hand data. It was collected from the respondents through interviews, and self-administered questionnaire. Primary data was important in answering questions about the effects of risk management and project performance . Secondary data means second-hand data. This was obtained from recorded documents, earlier studies and some publications on risk and management and project performance . Other information was obtained from the internet.

3.7 Research Instruments

3.7.1 Interviews

The researcher organized key informant interviews with the selected UNDP Staff who enriched the study findings. The researcher therefore had to interact with the respondents, face to face and asked them relevant questions to the study. The method was used purposely because it provided for a systematic flow of information due to the order of questions and it also helped in covering information that would have been skipped in the questionnaires.

3.7.2 Questionnaires

Self-administered questionnaires were used in the collection of data and these were distributed to the Project risk managers, Project beneficiaries and project staff of Mogadishu to Cadale Road Construction Project to provide answers. The instrument was purposely selected because it seeks personal views of the respondents and thus enabled the respondents to use their knowledge in providing a wide range of data as they would never shy away in any way.

3.8 Validity and reliability of the instrument

3.8.1 Validity

The researcher ensured validity of the instrument through expert judgment and the researcher made sure the coefficient of validity to be at least 70%. The researcher consulted her supervisor for expert knowledge on questionnaire construction. After the assessment of the questionnaire, the necessary adjustments were made bearing in mind of the objectives of the study. The formula that were used to calculate the validity of the instrument was;

$$\square\square\square = \frac{\text{no of items declared valid}}{\text{total no of items}}$$

$$\square\square\square = \frac{16}{18} * 100\% = 88.9\%$$

3.8.2 Reliability

According to Mugenda and Mugenda (1999), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. In order to test the reliability of the instrument to be used in the study, the test- retest method was used. The questionnaire was administered twice within an interval of two weeks. The researcher measured the reliability of the instruments using Cronbach's Alpha results.

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

3.9 Data gathering procedure

Before administration of the questionnaires

1. An introduction letter was obtained from the College of Humanities and Social Sciences to enhance the researcher to conduct for the study in Mogadishu, Somalia

2. When it was approved, the researcher made a list of respondents from the selected UNDP Staff through random sampling and purposive sampling.

3. The researcher then explained the study to the respondents and requested them to sign the informed consent form.

4. Research assistants were Select who assisted in the data collection; briefed and oriented them in order to be comprised items with some common set such as sex, age, marital status, consistent in administering the questionnaires.

During administration of questionnaire

1. The respondents were requested to answer in full and not to leave any part of the questionnaires unanswered.

2. The researcher and assistants emphasized to get back the questionnaires within three (3) days from the date of distribution.

3. All returned questionnaires were checked if they were all answered.

After the administration of the questionnaires

The researcher also collected the gathered data, encoded it into the computer and statistically treated using the Statistical Package for Social Sciences (SPSS).

3.10 Data analysis

This study explained, described and presented the findings basing on the specific objectives of the study and research questions, where data analysis was initially done through sketchy and generalized summaries of the findings from observation and conclusions in the process of data collection.

Data analysis was done using statistical package of social science (SPSS) under the tools mean and standard deviation for objectives one and two and the Pearson linear correlation co-efficient analysis was used to test the relationship between variables in objective three.

3.11 Ethical Consideration

The researcher carried out the study with full knowledge and authorization of the top authorities of UNDP, Mogadishu-Somalia. The researcher first of all acquired an introductory letter from the University which he would use to eliminate suspicion. The researcher thereafter went ahead to select respondents, and arrange for dates upon which he was to deliver questionnaires as well as pick them in addition to making appointments for interviews to be conducted in order to ensure that data collection was done in time.

CHAPTER FOUR

PRESENTATION DATA ANALYSIS

4.0 Introduction

This chapter present the data collected. The processed and analyzed data are in tables. Interpretation in form of implications and discussion are reflected below each table.

4.1 Demographic characteristics of the Respondents

Table 4.1 depict the demographic characteristics of the respondents in terms of gender, age, and education level.

Table 4. 1: Demographic characteristics of the Respondents

Category	Categories	Frequency	Percentage %
Gender	Male	94	82.46
	Female	20	17.54
	Total	**114**	**100.00**
Age	20-35 years	68	59.65
	36-51 years	38	33.33
	51 and above	8	7.02
	Total	**114**	**100.00**
Education Level	Primary	5	4.39
	Secondary	14	12.28
	Certificate	26	22.81
	Diploma	42	36.84
	Bachelor'	18	15.79
	Master's Degree	9	7.89
	Total	**114**	**100.00**

Source: primary data (2018)

The research findings indicated that 94(82.46%) of the respondents were male and 20(17.54%) were female. The research findings indicated that there was equitable distribution of the male and female population in the study. This implies that most of the respondents were men since the kind of work that is involved in road construction projects require masculine power.

The research findings also indicated that 68(59.65%) of the respondents were aged between 20-35 years, 38(33.33%) of the respondents were aged between 36-51 years, 8(7.02%) of the respondents were aged between 51 and above years. These findings indicated that all the expected representative ages participated in the study. However, the majority were young aged adults who are very energetic to carry out most activities in the road construction project.

In relation to education level, 5(4.39%) of the respondents were at Primary school level, 14(12.28%) were at secondary school level, 26(22.81%) were Certificate holders, 42(36.84%) of the respondents were Diploma holders, 18(15.79%) of the respondents were Bachelor' Degree holders and the remaining 9(7.89%) were Master's Degree holders. This implies that most of the respondents were relatively educated and thus had information about the risk management and project performance.

4.2 Relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project,

Conspicuously shown in Table 4.2 is the relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. The objective was measured using five constructs as illustrated below;

Table 4. 2: Relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

Items	Mean	Interpretation	Rank
The project manager must be able to recognize and identify the root causes of risks	3.10	High	1
Identifying, analyzing and responding to risks helps to achieve the project objectives	2.32	Low	2
Risk identification process attempts to identify the source and type of risks	2.13	Low	4
Risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness	2.30	Low	3
The identification and mitigation of project risks are crucial steps in managing successful projects	1.30	Very low	5
Average Mean	2.23	Low	

Source: Primary Data (2018)

Legend

Mean Range	**Interpretation**
3.26-4.00	Very High
2.51-3.25	High
1.76-2.50	Low
1.00-1.75	Very Low

Research results indicate that the project manager must be able to recognize and identify the root causes of risks (mean =3.10) was High on the Likert Scale. This was followed by identifying, analyzing and responding to risks helps to achieve the project objectives with a mean of 2.32 which was Low on Likert Scale.

(The meaning of Linker scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research, such that the term is often used interchangeably with rating scale, although there are other types of rating scales). Risk identification process attempts to identify the source and type of risks (Mean=2.13) was Low. Another indicator that risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness had a mean of 2.30 which was Low on the Likert Scale. Then the indicator that the identification and mitigation of project risks are crucial steps in managing successful projects had a mean of 1.30 which was very low. Finally, the average Mean was 2.23 which was equivalent to low. This implies that there is a close relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Clough et al., (2012) who noted that risk management is one of the nine knowledge areas propagated by the Project Management Institute. Risk management in the construction 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. In the construction industry, risk is often referred to as the presence of potential or actual threats or opportunities that influence the objectives of a project during construction, commissioning, or at time of use.

Interview responses

One of the UNDP Staff who were interviewed agreed that they often conduct risk identification of road construction in order to identify possible risks that could affect the project. This also helped the project managers to implement possible strategies to avert all risks involved in the project.

Another staff of UNDP interviewed also noted that there was a close relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia.

4.3 Relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project,

The study results illustrated in the Table 4.3 indicate the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. The objective was measured using five Items as illustrated below;

Table 4. 3: Relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project,

Items	Mean	Interpretation	Rank
Risk monitoring and control concerns keeping track of the identified risks and monitoring the residual risks	1.35	Very low	5
Risk monitoring and control also records risk metrics associated with implementing contingency plans and needs of the project	2.98	High	1
Some activities of risk monitoring and control use triggers to indicate that a risk is occurring as defined during the risk response planning stage	2.97	High	2
Planned risk responses in the project management plan are executed during the life cycle of the project	1.96	Low	4
Monitor and Control Risk involves of executing risk response plans, tracking identified risks and evaluating risk process effectiveness throughout the project	2.78	High	3
Average Mean	**2.41**	**Low**	

Source: Primary Data (2018)

Legend

Mean Range	Interpretation
3.26-4.00	Very High
2.51-3.25	High
1.76-2.50	Low
1.00-1.75	Very Low

Study results revealed that risk monitoring and control concerns keeping track of the identified risks and monitoring the residual risks had a mean of 1.35 which was Very low on the Likert Scale. This was followed by Risk monitoring and control also records risk metrics associated with implementing contingency plans and needs of the project had a mean of 2.98 which was High on the Likert Scale. The indicator that some activities of risk monitoring and control use triggers to indicate that a risk is occurring as defined during the risk response planning stage had a mean of 2.97 which was equivalent to High on the Likert Scale. This was followed by planned risk responses in the project management plan were executed during the life cycle of the project with a mean of 1.96 which was Low on the Likert Scale. Monitoring and Control Risk involves of executing risk response plans, tracking identified risks and evaluating risk process effectiveness throughout the project followed with a mean of 2.78 which was High on. The average Mean was 2.41 which was Low on the Likert scale. This implies that there was a close relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Fageha&Aibinu, (2014) who revealed that during the project, risk monitoring and control is the processes of keeping track of the identified risks, monitoring the residual risks and identifying new risks. This process was also to ensure the execution of the risk plan and continually evaluate the plan's effectiveness in reducing risk. Resource allocation can also be monitored as these too were have been pre-planned and, where appropriate, allocated to the agreed actions. Immediate risk actions should be built in with the other project activities as an integral part of the overall project management plan.

Interview responses

Another UNDP staff who was interviewed also revealed that there was close relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. One of the UNDP staff who was interviewed noted that risk monitoring and control had an effect of project performance of road construction.

4.4 Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

The study results illustrated in the Table 4.4 indicate the relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. The objective was measured using five constructs as illustrated below;

Table 4. 4: Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

Items	Mean	Interpretation	Rank
Risk response is the action be taken towards the identified risks and threats	1.90	Low	3
Risk response involves developing options and determining actions to enhance opportunities and reduce threats to the project's objectives	1.35	Very low	5
Having identified and analyzed risks, it is essential that something should be done in response	1.93	Low	2
It is usually the responsibility of each risk owner to decide what type of response is most appropriate, though they will often seek help and advice on this	2.11	Low	1
If the risk is classified as bringing negative consequences to the whole project, it is of importance to review the project's aim	1.82	Low	4
Average Mean	**1.90**	**Low**	

Source: Primary Data (2018)

Legend

Mean Range	Interpretation
3.26-4.00	Very High
2.51-3.25	High
1.76-2.50	Low
1.00-1.75	Very Low

The study findings revealed that the average mean of Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia had a mean was 1.90 which was equivalent to Low on the Likert Scale. This was followed by the indicator that risk response is the action be taken towards the identified risks and threats with a mean of 1.90 which was Low on the Likert Scale. Risk response involves developing options and determining actions to enhance opportunities and reduce threats to the project's objectives had a mean of 1.35 which was Very low on the Likert Scale. This was followed by having identified and analyzed risks, it is essential that something should be done in response had a mean of 1.93 equivalent to Low. It is usually the responsibility of each risk owner to decide what type of response is most appropriate, though they will often seek help and advice on this had a mean of 2.11 which is equivalent to Low on the Likert Scale. If the risk is classified as bringing negative consequences to the whole project, it is of importance to review the project's aim had a mean of 1.82 equivalent to low. This implies that there is a close relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Winch (2010) who claims that the lower impact the risk has, the better it can be managed. Most common strategies for risk response are: avoidance, reduction, transfer and retention. Beyond those types of responses, Winch (2010) furthermore describes that sometimes it is difficult to take a decision based on too little information. This may be avoided by waiting until the appropriate information is available in order to deal with the risk. This way of acting is called 'Delay the decision' but this approach is not appropriate in all situations, especially when handling critical risks. Those need to be managed earlier in the process.

Table 4. 5: Pearson's Correlation co-efficient index between risk identification and project performance

Correlations			
		Risk identification	Project performance
Risk identification		1	.465**
	Sig. (2-tailed)		.000
	N	67	67
Project performance	Pearson Correlation	.465**	1
	Sig. (2-tailed)	.000	
	N	67	67
**. Correlation is significant at the 0.01 level (2-tailed).			

The Pearson correlation results presented in Table 4.10 show that there is a positive significant relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia A positive significant relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia suggests that the project managers need to identify the possible risks that could be involved in the project.

Table 4. 6: Pearson correlation co-efficient between risk monitoring and control and project performance

Correlations			
		Risk monitoring and control	Project performance
Risk monitoring and control	Pearson Correlation	1	.519**
	Sig. (2-tailed)		.000
	N	67	67
Project performance	Pearson Correlation	.519**	1
	Sig. (2-tailed)	.000	
	N	67	67
**. Correlation is significant at the 0.01 level (2-tailed).			

The table above indicates the Pearson Correlation co-efficient between risk monitoring and control and project performance. The table indicates that there is a strong positive significant relationship between risk monitoring and control and project performance since ($r=0.519$ $p<0,05$) . This suggests that project managers can rely on the risk monitoring and control since it gives an insight about the progress of the project and thus reveal risks that can be involved.

Table 4. 7: Pearson Coefficient correlation between risk response and project performance

Correlations			
		Risk response	Project performance
Risk response	Pearson Correlation	1	.642**
	Sig. (2-tailed)		.000
	N	67	67
Project performance	Pearson Correlation	.642**	1
	Sig. (2-tailed)	.000	
	N	67	67
**. Correlation is significant at the 0.01 level (2-tailed).			

According to the results presented in the above table, it is indicated that there is a positive significant relationship between risk response and project performance. ($r=0.642$ $p<0.05$). This is indicated by Pearson Correlation of 0.642. This further implies that even though there is a strong positive relationship between risk response and project performance, project managers should also consider risk response vital since it involves responding and addressing the identified project risks.

Table 4. 8: Multiple regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.118	2.036		2.514	0.03
	Risk identification	.115	.115	.108	.992	0.01
	Risk monitoring and control	.184	.117	.197	1.570	0.02
	Risk response	.486	.130	.466	3.732	.000
a. Dependent Variable: Project performance						

The above multiple regression analysis shows that all the three independent variables significantly influence dependent variable (project performance). The most influential indicator of risk management is risk response 0.486 followed by Risk monitoring and control at 0.184 and the remaining is the Risk identification at 0.115. However this further shows that all can be quite instrumental tools for risk management in relation to project performance.

CHAPTER FIVE
DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this chapter, the findings, conclusions summary and recommendations are presented with relevance to the specific objectives of this study.

5.1 Discussion of findings

5.1.1 Relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

The study findings revealed that the average Mean was 2.23 which was equivalent to low. This implies that there is a close relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Clough et al., (2012) who noted that risk management is one of the nine knowledge areas propagated by the Project Management Institute. Risk management in the construction 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. In the construction industry, risk is often referred to as the presence of potential or actual threats or opportunities that influence the objectives of a project during construction, commissioning, or at time of use.

5.1.2 Relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

It was also found out that the average mean of the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia was 2.41 which was Low on the Likert scale. This implies that there was a close relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Fageha&Aibinu, (2014) who revealed that during the project, risk monitoring and control is the processes of keeping track of the identified risks, monitoring the residual risks and identifying new risks. This process should also ensure the execution of the risk plan and continually evaluate the plan's effectiveness in reducing risk.

5.1.3 Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia

The study findings revealed that the average mean of Relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia was 1.90 which was equivalent to Low on the Likert Scale. This implies that there is a close relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia. This is in line with Winch (2010) who claims that the lower impact the risk has, the better it can be managed. Most common strategies for risk response are: avoidance, reduction, transfer and retention. Beyond those types of responses, Winch (2010) furthermore describes that sometimes it is difficult to take a decision based on too little information. This may be avoided by waiting until the appropriate information is available in order to deal with the risk. This way of acting is called 'Delay the decision' but this approach is not appropriate in all situations, especially when handling critical risks. Those need to be managed earlier in the process.

5.2 Conclusions

5.2.1 Risk Identification and project performance

The study concludes that risk management is one of the nine knowledge areas propagated by the Project Management Institute (PMI). 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.

It also concludes that risk management in the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives.

Construction projects may be new construction or renovation and rehabilitation of existing infrastructure facilities. Most construction work in Somalia involves new public and private infrastructure projects. Large construction projects are exposed to risks arising from planning, design and construction complexity, many players, use of many resources and their availability, unpredictable environmental factors, the continuously changing economic and political environment, and statutory regulations.

5.2.2 Risk monitoring and control and project performance

The study concludes that during the project, risk monitoring and control is the processes of keeping track of the identified risks, monitoring the residual risks and identifying new risks. This process was also ensure the execution of the risk plan and continually evaluate the plan's effectiveness in reducing risk. Resource allocations can also be monitored as these were have been pre-planned and, where appropriate, allocated to the agreed actions.

Risk control may involve choosing alternative strategies, implementing a contingency plan, taking corrective action(s), or even the re-planning the project. It is important for the risk response owner to report periodically to both the project manager and the risk team leader on the effectiveness of the plan, any unanticipated unwanted effects and any mid-project programme correction needed to mitigate the risk occurrence.

5.2.3 Risk response and project performance

The study concludes that risk response is the action to be taken towards the identified risks and threats. The response strategy and approach chosen depend on the kind of risks concerned. Other requirements are that the risk needs to have a supervisor to monitor the development of the response, which was agreed by the actors involved in this risk management process.

It concludes that risk response is the process of developing options and determining actions to enhance opportunities and reduce threats to the project's objectives. It is usually the responsibility of each risk owner to decide what type of response is most appropriate, though they will often seek help and advice on this.

5.3 Recommendations

Government should be aware that risk management methods are the dynamic project tool especially in construction projects. It should be very careful to avail the supervisor of the construction works to ensure that risk management methods are being conducted to prevent post completion defects and excessive costs. It was ease work and also monitor and emphasize on tender process to offer such tenders of construction projects basing on assessed risk management methods as it might lead to the poor quality when the winner do not have required competitiveness.

The project managers were ensure that risk management methods is conducted not as routine activity but needed project management tool to perform the project effectively and efficiently. The rest of the project team should know the importance and reason of conducting risk management methods and how frequent it was be conducted depending on the nature of work.

The benefits of risk management in projects are huge. Its success can gain a lot of money if dealt with uncertain project events in a proactive manner. The result were be that minimizing the impact of project threats and seize the opportunities that occur. This allows project team to deliver project on time, on budget and with the quality results project sponsor demands. Also team members were much happier if they do not enter a "firefighting" mode needed to repair the failures that could have been prevented.

The partners were let the beneficiaries participate in the activities as they are the one who know what they need and the exact specification. They should also make sure that the post completion satisfaction of the users is met not only receiving physical end result of the project and think that everything is fine.

5.4 Areas of further research

More research needs to be done on the following;

- Risk management and project efficiency
- Staff motivation and project performance

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Dear respondent

I am by the names of **MAHAD YUSUF AHMED, 1164-06216-09078,** a student from Kampala International University carrying out a study on" **Risk management and performance of UNDP projects in Somalia: A Case study of Mogadishu to Cadale Road Construction Project".** I am very glad that you are my respondent for this study. The purpose of this questionnaire was to obtain your opinion/views to be included among others in the study. This research is one of the requirements leading to the award of Master's degree in Project planning and management from Kampala International University. It is hence an academic research and will not be used for any other purpose other than academic. Your co-operation and answers to these questions heartily and honestly will be significant to this study to gather the data needed.

PART 1: RESPONDENT'S BIO DATA

Gender

1. Male ☐
2. Female ☐

Education Level

1. Primary ☐
2. Secondary ☐
3. Certificate ☐
4. Diploma ☐
5. Bachelor' Degree ☐
6. Master's Degree ☐

Age of respondents

1. 20-35 years ☐
2. 36-51 years ☐
3. 51 and above years ☐

Direction 1: Please write your rating on the space before each option which corresponds to your best choice in terms of level of motivation. Kindly use the scoring system below:

Score	Response Mode	Description	Interpretation
5	Strongly Agree	You agree with no doubt at all	Very satisfactory
4	Agree	You agree with some doubt	Satisfactory
3	Neutral	You are not sure about any	None
2	Disagree	You disagree with some doubt	Fair
1	Strongly Disagree	You disagree with no doubt at all	Poor

SECTION B:

	Risk Identification and project performance	1	2	3	4	5
1	The project manager must be able to recognize and identify the root causes of risks					
2	Identifying, analyzing and responding to risks helps to achieve the project objectives					
3	Risk identification process attempts to identify the source and type of risks					
4	Risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness					
5	The identification and mitigation of project risks are crucial steps in managing successful projects					

	Risk monitoring and control and project performance	1	2	3	4	5
1	Risk monitoring and control concerns keeping track of the identified risks and monitoring the residual risks					
2	Risk monitoring and control also records risk metrics associated with implementing contingency plans and needs of the project					

3	Some activities of risk monitoring and control use triggers to indicate that a risk is occurring as defined during the risk response planning stage					
4	Planned risk responses in the project management plan are executed during the life cycle of the project					
5	Monitor and Control Risk involves of executing risk response plans, tracking identified risks and evaluating risk process effectiveness					

	Risk response and project performance	**1**	**2**	**3**	**4**	**5**
1	Risk response is the action be taken towards the identified risks and threats					
2	Risk response involves developing options and determining actions to enhance opportunities and reduce threats to the project's objectives					
3	Having identified and analyzed risks, it is essential that something should be done in response					
4	It is usually the responsibility of each risk owner to decide what type of response is most appropriate, though they will often seek help and advice on this					
5	If the risk is classified as bringing negative consequences to the whole project, it is of importance to review the project's aim					

Thank you for your responses

END

APPENDIX II: INTERVIEW GUIDE

Do you conduct risk identification of road construction?

What is relationship between risk identification and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia?

What is the relationship between risk monitoring and control and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia?

Do you think risk monitoring and control has an effect of project performance of road construction?

What is the relationship between risk response and project performance of Mogadishu to Cadale Road Construction project, Mogadishu-Somalia?

What is the relationship between needs identification and project performance ofMogadishu to Cadale Road Construction project, Mogadishu-Somalia?