



**CONTRACTOR MANAGEMENT AND PERFORMANCE OF SELECTED
ROAD INFRASTRUCTURE PROJECTS AT UGANDA NATIONAL
ROADS AUTHORITY**

By

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DECLARATION

I, **Nicholas Bankunda Kajinya**, declare that this thesis is my own original work and that it has not been presented and will not be presented to any other University for similar or any other degree award

Sign.....

Date.....

APPROVAL

We, the undersigned, certify that we have read and here by recommend for acceptance by Uganda Management Institute a dissertation titled “the effect of contractor management on the performance of selected road infrastructure projects at Uganda National Roads Authority” in partial fulfillment of the requirements for the award of the degree of Masters in Business Administration

Dr. Godfrey Mugurusi

Sign.....

Date.....

Ms. Pross Nagitta Oluka

Sign.....

Date.....

DEDICATION

This research work is dedicated to my mother and father who laid my education foundation upon which I am continuing to build.

ACKNOWLEDGEMENT

In assorted ways, a number of people have contributed to making this study achievable. First and foremost, I would like to thank Dr. Godfrey Mugurusi and Ms. Pross Oluka who saw me through this book; to all those who provided support, talked things over, read, wrote, offered comments, allowed me to quote their remarks and assisted in the editing, proofreading and design. Writing this thesis would have been extremely difficult, almost impossible without the cooperation and assistance of the employees of Uganda National Roads Authority with whom interviews and discussions were held. I am indebted to all of them for giving me their time and for facilitating my research. My sincere appreciations to the staff of Uganda Management Institute who gave me positive criticisms. It must be emphasized, however, that I bear full responsibility for any weaknesses of this thesis. Lastly, but by no means the least, I am extremely grateful to my wife and children for their patience and endurance during the duration of this programme. There have been difficult moments but I hope we can share the fruits of this work together. Above all, I want to thank my parents, and the rest of my family, who supported and encouraged me in spite of all the time it took me away from them. It was a long and difficult journey.

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LIST OF ACRONYMS

CSC	:	Contractor Selection Criteria
IG	:	Inspectorate of Government
OAG	:	Office of the Auditor General
PDE	:	Procurement and Disposal Unit
PPDA	:	Public Procurement and Disposal of Public Assets Authority
PPDAAT	:	Public Procurement and Disposal of Public Assets Appeals Tribunal
PPP	:	Public Private Partnerships
PSF	:	Project Success Factors
QCBS	:	Quality Cost Based Selection
RAFU	:	Road Agency Formation Unit
SPSS	:	Statistical Package for the Social Sciences
TCS	:	Technical Compliance Selection
UNABCEC	:	Uganda Association of Building and Civil Engineering Contractors
UNRA	:	Uganda National Roads Authority

ABSTRACT

The study examined the effect of contractor management on the performance of selected road infrastructure projects at Uganda National Roads Authority. The study was premised on the following research objectives: to examine the effect of contractor selection on performance of selected road infrastructure projects at UNRA, to assess the effect of contractor monitoring on performance of road infrastructure projects at UNRA, to assess the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA. In this study, a total number of 145 respondents were expected but 102 respondents returned the survey instruments representing a response rate of 70.3%. The data was collected using questionnaires and interviews and analysis was done using regression analysis and correlation coefficients for the quantitative findings. Qualitative analysis was done using content and thematic analysis. The findings revealed that there is a positive relationship between contractor selection, contractor monitoring and oversight role of PPDA and performance of road infrastructure projects. The results on contractor selection and performance of road infrastructure projects were $r = .476^{**}$, $p = 0.000 < 0.05$, the results for contractor monitoring and performance of road infrastructure projects indicated that $r = 0.427^{**}$, $p = 0.000 < 0.05$ and the results for oversight role of PPDA that $r = 0.512$, $p = 0.00 > 0.05$. It was concluded that: regular assessment and evaluation is necessary in order to ensure effective contractor selection. Contractors selected at times are not well managed or reviewed to ensure they meet evolving business needs hence ending up in numerous complaints. There is need to ensure proper contractor selection and monitoring through transparent and flexible bidding processes and following advice of the Regulatory Agency.

CHAPTER ONE

INTRODUCTION

1.0 Introduction.

Road infrastructure is a crucial driving force for economic growth in any country, and sustained access to roads is essential to improve living standards (Basheka, 2012). Productivity, welfare, and security of both rural and urban people are greatly influenced by the level of road infrastructure development in any country (Arrows, 2010). This study sought to yield insight into the degrees to which contractor selection and monitoring affect the timeliness, cost and quality of implementation of road infrastructure projects. Individual road projects was not be considered as units of analysis in this study (Bagaka & Kobia, 2010). The independent variable is contractor management. The dependent variable is performance which was measured in terms of time, cost and quality. The moderating variable was the oversight role of PPDA. This chapter therefore presents the background to the study, the statement of the problem, purpose of the study, objectives of the study, the research questions and hypothesis, conceptual framework, significance of the study, justification of the study, scope of the study and definition to operational terms and concepts.

1.1 Background to the Study

The background is divided into four perspectives the historical, theoretical, conceptual and contextual

1.1.1 Historical Background

Prior to 1900, procurement was recognized as an independent function by many railroad organizations, but not in most other industries. Prior to World War I, purchasing was regarded as

primarily clerical. During World War I & II the more emphasis was laid on procurement due to the importance of obtaining raw materials, supplies, and services needed to keep the factories and mines operating (Holt, 2014).

In 1950s & 1960s procurement continued to gain stature as the techniques for performing the function became more refined and as the number of trained professionals increased. The emphasis became more managerial. With introduction of major public bodies and intergovernmental organizations, such as United Nations, procurement becomes a well-recognized science. In 1970s & 1980s, more emphasis was placed on purchasing strategy as the ability to obtain needed items from suppliers at realistic prices increased (Ssebanakitta, 2012).

In Africa there are different studies that have been carried out to support the different performance aspects of the procurement systems. Either they emphasize on the performance of the system (Dunn and Jones, 2010) or they state the performance of the individual party and organizational units (Dunn and Jones, 2010). To the best of author's knowledge, the procurement performance has been affected by factors like negotiation abilities. Moreover these studies provide too many procurement performance metrics obstacles. Besides these, the provided performance metrics in Africa have been too generic in most cases and not meeting targets.

It is on this basis that the government of Uganda, in 1989, set up the Public Service Review and Reorganization Commission (PSRRC), under the Ministry of Public Service, to examine and propose recommendations on public service improvement (Ministry of Public Service Report, 2008). The ultimate goal was to improve the general service delivery to the public, create efficiency and effectiveness based on transparency in processes and procedures, performance evaluation systems and clear organizational goals and objectives. The results of the commission

led to the establishment of government agencies by law: Public Procurement and Disposal of Public Assets Authority, Uganda Revenue Authority, National Environmental Management Authority, Civil Aviation Authority, National Agricultural Research Organization, Uganda Wildlife Authority, Inspector General of Government and many others. Particularly, the PPDA Act (2003) in Uganda which describes how public procurement may be conducted through the procurement cycle (Ministry of Public Service Report, 2008).

Procurement methods, bid evaluation, contract management spans through all levels of the procurement process in Uganda (Oluka and Basheka, 2012). The procurement process activities include contractor management In Uganda, contracts are repeatedly awarded to contractors who are inefficient yet an impartial method can be used for selecting contractors. Chetty and Eriksson (2002:34) posit that the selection of a contractor for a project is a critical decision for the developer because he/she often, relies on the contractor to manage the process of transforming a feasible concept into a functioning project. Although some owners have the expertise, resources, and desire to lead the development effort on their own, choosing the right contractor can greatly improve the likelihood of project success. According to Bubshalt and Al-Gobali (2014) contractor management involves contractor control on projects. In addition, this arrangement aims to ensure that the management process is planned and that the results, good or bad, are shared with the contractors to ensure that improvements are made and/or corrective action taken, if required (Bubshalt and Al-Gobali, 2014). According to Clarke (2014), contractor management involves overseeing that the contract is duly monitored. The inspection should ideally be undertaken together with the contractor's representative to ensure that the issues raised are dealt with at the time of the inspection.

Ocharo (2013) assert that many public firms are not following prescribed practices. They stress that the procurement audits carried by Public Procurement & Disposal of Assets Authority (PPDA) revealed that out of the contracts audited only 2% were complying to set practices. More than five (5) years later a similar audit was conducted revealing absence of contract management implementation plan (Ocharo, 2013). Evidence shows that there is need for knowledge about the performance of contract management in the procurement process particularly in the developing countries like Uganda, where much is unknown about it.

Regardless of the concerns and activities of contracts several short comings are still rampant in procurement contract management according to (Schooner and Swan, 2011). Procurement entities frequently reported weaknesses hence resulting in poor performance. The problem has resulted in affecting contract performance, costs, and delays in executing tasks and receiving goods and services. Holt (2014), state that infrastructure is central to the social-economic development of all countries and the well-being and prosperity of society (Arrows, 2010). With increased globalization the level and quality of infrastructure has become critical for all national economies than ever before. Demand for global infrastructure spending has been projected to total somewhere between \$40 trillion and \$50 trillion over the next two decades (Visse, 2012). The European Union estimates that up to \$2.7 trillion in new infrastructure spending will be required through 2020 to meet its current goals (Deutsche Bank AG, 2014:4). Visse (2012) argued that while many developed countries face the need for substantial infrastructure improvements, the United States infrastructure is crumbling (Donovan, 2013).

Although procurement for road infrastructure poses serious challenges that are not found in other areas of public procurement because of its complexity, its performance remains critical (World Bank, 2009). This is supported by Visse (2012) who asserts that the quality of infrastructure in

general is one of the prime factors separating nations that are economic winners from those that lose ground or remain non-starters (Arrows, 2010).

In Africa, although use of roads dominates the transport sector in most countries, carrying 80 to 90 percent of passenger and freight traffic; the condition of these roads remains very poor by international standards (World Bank, 2011). World Bank report (2011) indicates that the African road sector has passed through a wide ranging and consistent set of policy reforms, with most countries embarking on creation of independent source of funding for road maintenance based on road-user charges (Banaitiene, 2006). However this has also not fully improved the performance of roads in Africa. On average, about 43 percent of the main roads networks are in good condition, a further 31 percent are in fair condition, and the remaining 27 percent are in poor condition (World Bank, 2011).

As per the World Bank report (2011), Africa has a much lowest spatial density of roads than any other region of the world, only 204 km of roads per 1,000 km² of land area, with only one-quarter paved, while the world average is 944 km/1,000 km², with over half paved (Bagaka & Kobia, 2010). The spatial density of Sub-Saharan Africa's roads is less than 30 percent of that of South Asia, where half of the roads are paved, and only 6 percent of that of North America, where two-thirds are paved (Barasa, 2014). The Works and Transport Sector Performance Report (2011), notes that availability of good-quality and reliable transport infrastructure and services is a pre-requisite for effective functioning of the service sectors, consuming about 16% of the national budget (Basheka, 2008).

In recent years, Uganda has made significant efforts to improve infrastructure provision particularly in roads sector (World Bank 2007). Institutional reforms have been initiated to enhance infrastructure performance through creation of more institutions such as the Uganda

National Roads Authority and Uganda Road Funds (for funding road maintenance). In spite of the efforts made, the reasons for poor quality roads, delayed service delivery and cost overruns on road infrastructure projects in Uganda continue to elude the project implementers (Barasa, 2014). According to the Uganda National Roads Authority report (2014), could not absorb all the funds allocated for road construction and maintenance (Basheka, 2012). The report highlighted 7 projects which delayed to takeoff for over one year due to complaints raised during the bidding process causing intervention of by oversight agencies such as the Public Procurement and Disposal of Public Assets Authority (PPDA) or the Inspectorate of Government (IGG), or times Courts of Law (Banaitiene, 2006).

1.1.2 Theoretical Background

The study was underpinned by the Institutional Theory of DiMaggio and Powell (1983). Contractor selection process and contractor monitoring is linked to the institutional theory. The Institutional theory adopts a sociological perspective to explain organizational structures and behavior (Gill, 2013). Many institutions operate with a number of institutional problems that hinder smooth operation. This leads to inefficiency and ineffectiveness for example increased costs and increased delays. The theory draws attention to how organizations decision making is influenced by the social and cultural factors as identified by Scott (2001), and in particular how rationalized activities are adopted by organizations. The theory emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance (Scott, 2004). When applied, the theory explained the contractor selection and monitoring as an effect of institutional decision making and the influence of the regulatory and oversight agencies in influencing performance (Scott, *ibid*). The institutional theory helped in showing the relevance of structures, processes and systems. This theory highlights factors that are responsible for

inefficiencies in a sociological perspective and how they can be dealt with. Many organizations find themselves in a situation where they ignore the priority and rationalized activities.

In relation to this study, the institutional theory was relevant in the following ways: The theory emphasizes the use of rules, laws and sanctions as enforcement mechanisms, with expedience as basis for compliance. The theory explains the contractor selection as an effect of institutional decision making and the influence of the regulatory and oversight agencies in influencing performance (Scott, *ibid*). The institutional theory helped in showing the relevance of structures, processes and systems. It helped to establish whether contractor selection has significant effect on performance of road infrastructure projects. It is this theory that underpinned the study and was further expanded in the literature review under the theoretical review in chapter two.

1.1.3 Conceptual Background

This sub section explores the focal concepts in the current study. These include contractor management and performance. Under contractor management the key focus was on contractor selection and contractor monitoring. Arrows (2010), defines contractor selection as the evaluation and selection of contractors leading to the award of construction contracts which is a vital part of the road construction process. For purposes of this study, contractor selection referred to choice of procurement methods, evaluation Criteria adopted and assessment of competency, & capacity.

While selecting bidders repeated awards to a single contractor must be precluded; an impartial method must be used for selecting contractors who are to receive bid solicitations. Contractor management or contract administration is the management of contracts made with customers, vendors, partners, or employees. The personnel involved in contractor administration required to negotiate, support and manage effective contracts are expensive to train and retain. Contractor

management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions, as well as documenting and agreeing on any changes or amendments that may arise during its implementation or execution (Gipon, 2014).

According to Clarke (2014), contractor monitoring involves overseeing that the contract is duly monitored. The inspection should ideally be undertaken together with the contractor's representative to ensure that the issues raised are dealt with at the time of the inspection. For purposes of this study, contractor selection was looked at in relation to structures, processes and rules in place. Contractor monitoring was measured by communication and records management, inspections & Audits, and appraisal & dispute management. The dependent variable is performance, according to Heinrich (2007), performance is the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed (Heinrich, 2007). For purposes of this study, performance was measured in terms of time, cost and quality. The moderator variable is oversight role of PPDA.

1.1.4 Contextual Background

The road sector in Uganda, like many other sectors, has since the 1990s undergone several reforms such as creation of semi-autonomous institutions and amendment of the procurement laws all intended to improve efficiency and effectiveness in the Road sector (Ssebanakita, 2012). According to World Bank (2007), in recent years, Uganda has made significant efforts to improve infrastructure provision particularly in roads; institutional reforms have been initiated to enhance infrastructure performance through creation of more institutions such as the Uganda National Roads Authority and Uganda Road Fund. In spite of the reforms and increased funding for the road sector which more than doubled from UGX 374.12 billion in 2005/06 to UGX

1,214.82 billion in 2009/10, there has been abysmal improvement of service indicators for the sector (ACODE, 2012: V). The key focus is on the roads that UNRA has worked in the last 10 years since its inception and mainly those linking rural areas to urban areas. The roads especially in districts are still poor, with challenges of adequate funding and capacity for service delivery. Despite the existence of a regulatory framework in the road sector, millions of dollars have continued to be lost in uncompleted contracts. Existing evidence indicates that government is still losing billions of shillings in shoddy works and services (Inspector General of Government (IGG Report, 2012). The researcher therefore hypothesizes that this could be due to weaknesses contract management procedures and procurement structures. Improvement of road infrastructure is taking a center stage in many African Countries. Due to numerous complaints on the procurement process, commencement and completion of a number of road projects was delayed. Predominately among these road projects are (1) Mukono-Kyetume-Katosi-Nyenga, (2) Mubende-Kakumiro- Kagadi, (3) Kigumba-Bulima-Kabwoya, (4) Kamudini-Gulu and Kafu-Kiryandongo-Kamudini.

The above statement indicates that timely transformation of road infrastructure in Uganda remains a big challenge, hence the need to investigate the methods and procedures for contractor selection and contractor monitoring, and the effectiveness of the oversight role played by the regulator (PPDA).

1.2 Statement of the Problem

Road infrastructure is central to the social-economic development of all countries. In Africa roads dominate the transport sector, carrying 80 to 90 percent of passenger and freight traffic, and the main means of access to most rural communities. UNRA that was formed by statute to construct and maintain roads in Uganda has found challenges in its work. According to the

World Bank Report (2011), some of the roads put up by national agencies in sub-Saharan Africa are poor. Public construction of road projects in Uganda has witnessed delays in implementation, cost overruns and at times poor quality works (Alinaitwe, Apolot and Tindiwensi, 2013). Most of these issues can be attributed to poor contractor management. Kugonza (2012) cited increased cases of delayed, incomplete or collapsing physical infrastructure projects soon after commissioning, which was attributed to the procurement process, in particular weak contractor management processes (Basheka, Oluka and Karyeija, 2013). The Auditor General Report (2014) indicated the procurement process of 50 roads in Uganda were either delayed or poorly constructed. Ssebanakita (2012) highlighted that in the FY 2012/2013, Uganda National Roads Authority (UNRA), failed to utilize fully the funds allocated for road projects due to delays in the procurement processes and numerous complaints by the bidders. Poor quality roads have continued to be the norm in Uganda, with the practitioners accusing one another for poor performance. Due to numerous complaints on the procurement process, commencement of a number of road projects was delayed. Delays are highlighted in the UNRA (2014) report which attributed failure to absorb funds to the lengthy procurement process, actions by oversight agencies, and weakness in the PPDA Act which accords too much liberty to complaints. The above scenarios indicate failure of contractor management systems within these projects. Yet, not much linkage has been done empirically to demystify the proposition surrounding the performance of road infrastructure projects in Uganda and this has created a knowledge gap. There is fear that the performance of road infrastructure projects is likely to tremendously dwindle if contractor selection and monitoring is not improved in Uganda. Therefore the study sought to examine the effect of contractor management on the performance of selected road infrastructure projects at Uganda National Roads Authority

1.3 Purpose of the Study

The purpose of the study was to examine the effect of contractor management on the performance of selected road infrastructure projects at Uganda National Roads Authority

1.4 Objectives of the Study

The objectives of this study were:

1. To examine the effect of contractor selection on performance of selected road infrastructure projects at UNRA.
2. To assess the effect of contractor monitoring on performance of road infrastructure projects at UNRA.
3. To assess the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA.

1.5 Research Questions

The study attempted to answer the following research questions

1. What is the effect of contractor selection on the performance of selected road infrastructure projects at UNRA?
2. What is the effect of contractor monitoring on the performance of selected road infrastructure projects at UNRA?
3. What is the moderator effect of oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of selected road infrastructure projects at UNRA?

1.6 Research Hypotheses

The study tested the following research hypotheses

1. There is a significant effect of contractor selection on the performance of selected road infrastructure projects in Uganda.
2. There is a significant effect of contractor monitoring on the performance of selected road infrastructure projects in Uganda
3. There is a significant moderator effect of the oversight role played by PPDA on contractor selection, contractor monitoring and performance of selected road infrastructure projects in Uganda

1.7 Conceptual Framework

The Conceptual framework below shows the relationship between contractor management and performance of selected road infrastructure projects.

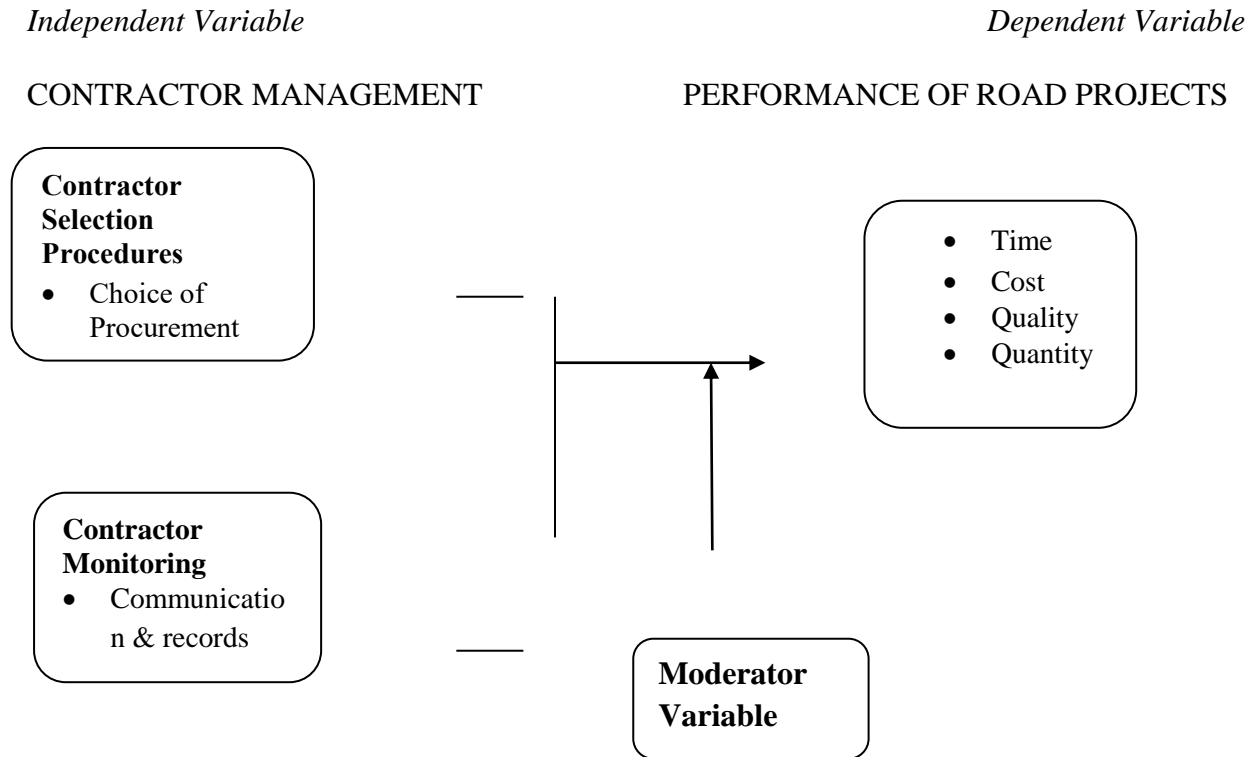


Figure 1: *Conceptual framework showing the relationship between contractor management and the performance of selected road infrastructure projects*

Source: *Adopted from Gitau (2013) and modified by the researcher*

Contractor management (independent variable), is to be studied and examined through moderating variables. These include examining contractor selection, functions of oversight agencies, contractor monitoring in order to attain performance of road infrastructure project in UNRA, (the dependent variable) which is the study's desired goal, of attaining timely, cost effective, quantity, and quality road infrastructure projects. Occasionally where the contractor selection and contractor monitoring (the independent variable) have failed to achieve the desired

goal, decisions may be taken under the executive directive (the alternative variable) to attain performance of road infrastructure project (desired goal). However, it should be noted that this is not within the procurement framework. The moderator variable is oversight role of PPDA.

1.8 Significance of the Study

The findings of the study may be useful to a variety of stakeholders for example:

The Government of Uganda: It is hoped that Government of Uganda has prioritized infrastructure projects and has allocated enormous financial resources to infrastructure development especially road works. This study is critical and timely considering public outcry on delays in implementation of road infrastructure projects, shoddy works by contractors and failure of absorption of funds allocated to the road sector.

Policy makers and Decision makers: The study may hopefully guide government policy makers, agencies and all stakeholders managing infrastructure development projects in general to design robust mechanism of contractor selection and contract monitoring that promote value for money and timely implementation of road infrastructure projects.

Researchers: Furthermore the study may fill the procurement knowledge gaps left out by other researchers and writers performance of infrastructure projects, read and put to use, the study will hopefully improve performance of road infrastructure projects. The findings can therefore be referred to by government agencies, procurement regulators and procurement professionals on what important aspects that should be attached to ensuring proper performance of government projects. And lastly, the research may act as a foundation to indicate areas of further research to subsequent scholars in the field of contractor selection and monitoring

1.9 Justification of the Study

Uganda National Roads Authority was established to construct and maintain roads in the country. However, its work has been clogged with numerous complaints causing delays in implementation and where infrastructure contracts are signed, poor quality of works and cost overrun are evident. Despite the numerous complaints about road infrastructure projects in Uganda, little research has been done to establish the causes of numerous complaints and continuous delays, shoddy works and escalation of costs in the implementation of road infrastructure projects in Uganda so as to design appropriate mitigating strategies. Therefore there was an urgent need to investigate the effect of contractor selection and monitoring on performance of road projects in Uganda.

1.10 Scope of the Study

1.10.1 Geographical Scope: The study was carried out in Kampala. The major roads focused on in this study were (1) Mukono-Kyetume-Katosi-Nyenga, (2) Mubende-Kakumiro- Kagadi, (3) Kigumba-Bulima-Kabwoya, (4) Kamudini-Gulu and Kafu-Kiryandongo-Kamudini.

1.10.2 Content Scope: The study examined relationship between contractor management and performance of roads infrastructure projects in Uganda. Contractor management is the independent variables and performance of roads infrastructure projects in Uganda is the dependent variable. The moderating variable is oversight role played by PPDA.

1.10.3 Time Scope: The study was limited to a period between 2008 and 2016 (11 years). This is the period when UNRA has been in existence. Despite the existence of a regulatory framework and increased funding in the road sector, millions of dollars have continued to be lost in uncompleted contracts. Existing evidence indicates that government is still losing billions of shillings in shoddy works and services predominately among these road projects are (1)

Mukono-Kyetume-Katosi-Nyenga, (2) Mubende-Kakumiro- Kagadi, (3) Kigumba-Bulima-Kabwoya, (4) Kamudini-Gulu and Kafu-Kiryandongo-Kamudini.

1.11 Operational Definitions of Key Terms and Concepts

This section presents the Definitions to Key Concepts and Terms.

Contractor Monitoring: according to Arrows (2010), contractor selection process refers to the choosing of the most appropriate contractor to deliver the project as specified so that the achievement of best value for money is assured. Russell's and Ryan (2010) refer to contractor monitoring as the regular process of evaluating contract performance based on measurable deliverables and verifying contractor compliance with the terms and conditions in the contract. Contractor monitoring is the regular process of evaluating contract performance based on measurable deliverables and verifying contractor compliance with the terms and conditions in the contract (Russell & Ryan, 2010).

Contractor selection refers to the choosing of the most appropriate contractor to deliver the project as specified so that the achievement of best value for money is assured (Arrows, 2010).

Project performance is the accomplishment of set tasks as measured against preset standards of accuracy, cost, completeness and quality (Alchian & Demsetz 2012). Alchian and Demsetz (2012), notes that performance is the accomplishment of set tasks as measured against preset standards of accuracy, cost, completeness and quality. For purposes of this study, performance was measured in terms of time, cost and quality. The moderator variable is oversight role of PPDA. Procurement practice method involves the procedure, process or rule used for identification, selection and supervision of providers or contractors (Oluka, 2013).

Contractor management or contractor administration is the management of contracts. Contractor management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions (Gipon, 2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature reviewed on the basis of the study objectives. The literature was selected, studied and arranged according to the themes relating to the contractor selection, contractor monitoring, and performance of road infrastructure projects. The chapter presentation is under three sections; review of various theories and concepts, highlighting contractor management its influence on performance of road infrastructure projects in Uganda and synthesis of literature and research gap analysis. Literature sources include books and journals aimed at providing insight in what has already been done within this area of study and also as a guide in answering the research questions

2.2 Theoretical Review

The Institutional Theory adopts a sociological perspective to explain organizational structures and behavior (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). The theory draws attention to the social and cultural factors that influence organizational decision-making and in particular how rationalized activities are adopted by organizations (Scott, 2001). The institutional theory is the traditional approach that is used to examine elements of public procurement (Ocharo, 2013).

Scott (2004) identifies three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance (DiMaggio and Powell, 1983). Institutional theorists assert that the institutional environment can strongly influence the development of formal structures in an organization, often more profoundly than market

pressures. At this point new and existing organizations adopted the structural form even if the form doesn't improve efficiency (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). However, the theory is still relevant; road agencies are laboring to adopt the new forms including right contractor selection and monitoring to improve efficiency, and are adopting the structural forms to maintain legitimacy.

Criticisms: However, these formal structures of legitimacy can reduce efficiency and hinder the organization's competitive position in their technical environment. To reduce this negative effect, organizations often will decouple their technical core from these legitimizing structures. Organizations will minimize or ceremonialize evaluation and neglect program implementation to maintain external (and internal) confidence in formal structures while reducing their efficiency impact. In relation to the study, PPDA Act, 2003, places the overall responsibility to award and manage contracts with the Entity's staff. The law further envisages that the entities employ professionally qualified and trained procurement staff to select and monitor contractors. This theory explains how the actions of the agent affect the principal's intended goals such as performance of road infrastructure projects. Most staffs are reluctant to follow the stipulated laws hence causing inefficiency within the system. The inefficiencies can best be addressed by looking at the procedure and following the procedure without much deviation

2.3 Review of Related Literature

The literature is reviewed on the basis of the study objectives (variables) of the study as laid down in chapter one

2.3.1 Road Infrastructure Project Performance

In Uganda, Oluka and Basheka (2014) examined the determinants and constraints of effective contract management and its implications on service delivery. The study was motivated by persistently low compliance levels reported by procurement authority as far as road construction projects is concerned. Data was collected using a closed ended questionnaire and the study identified determinants for effective contractor management. These include clear definition of processes and having in place contract management plans, appropriate methods of capturing key lessons from contractor management process, accurate definition of roles and having a knowledgeable contractor manager.

Alinaitwe, Apolot and Tindiwensi, (2013) investigated the causes of construction project delays and cost overruns in Uganda's public sector with an intention of ranking them according to their frequency, severity and importance. A total of 30 projects at Civil Aviation Authority were reviewed. Five most important causes of delays and cost overruns were found to be changes in the work scope, delayed payments to contractors, poor monitoring and control and high inflation and interest rates. Ahimbisibwe, Muhwezi & Eyaa (2012), examined the relationship between supplier opportunism, contractor management and service delivery in outsourced contracts in Uganda. The study was conducted in the 116 Procuring and Disposing Entities in Uganda and the findings reveal that supplier opportunism and contractor management are significant predictors of service delivery. This study however does not address the impact of supplier determination process on contract performance. Procurement performance measurement; the process of quantifying the efficiency and effectiveness of actions has received increasing interest since the late 1980s. Lubega (2010) who conducted a study on performance measurement systems notes that efficiency can be measured from the purchasing organization's context where

the personnel, management, procedures, policies, and information system issues are considered (Lubega, *ibid*). In Uganda, measuring performance of infrastructural projects draws a considerable amount of attention from professional associations, scholars and practitioners, although the attention is there, it still remains wanting.

According to Kalinaki (2011), during the 2009 baseline survey for the procurement performance measurement system, entities were assessed on their performance on ten critical documents basing on records management practices (Kalinaki, *ibid*). Under this key performance area, the main indicator measured was the completeness of procurement records in a procurement transaction measured against a checklist of the following 10 documents. Performance measurement has now gone beyond input and process into other sensitive areas. The researcher considers the shift of measurement systems beyond input and process into the more politically and methodologically sensitive area of assessing effectiveness as ‘difficult and controversial. In Africa, roads dominate the transport sector, carrying 80 to 90 percent of passenger and freight traffic; however the condition of these roads is very poor by international standards (World Bank, 2011). World Bank (2011) indicated that the African road sector has passed through a wide ranging and consistent set of policy reforms, with most countries embarking creation of independent source of funding for road maintenance based on road-user charges. However this has also not fully improved the performance of roads in Africa (World Bank, 2011). On average, about 43 percent of the main networks are in good condition, a further 31 percent are in fair condition, and the remaining 27 percent are in poor condition (World Bank, 2011). The World Bank reports give a general picture on the performance of the road project in Uganda and other African countries however in creating a nexus between the earlier study and this study, the

researcher introduced the aspect of contractor selection and contractor monitoring and incorporate within his study

2.3.2 Contractor Selection and Performance

Contractor Selection is the process of choosing the most appropriate contractor to deliver a specified project so as to ensure achievement of best value for money. Contractor selection is one of the main decisions made by the clients and in order to ensure that the project can be completed successfully, the client must select the most appropriate contractor. Procurement and bid evaluation methods are critical steps in contractor selection (Singh & Tiong, 2005). Contractor Selection process involves the use of different procurement and evaluation methods (Lynch, 2014). Different from Lynch (2014), for purposes of this study, contractor selection referred to procurement method, evaluation criteria, competence and capacity.

Selecting a contractor is one of the major decisions which influences the progress and success of any construction project (Banaitienė and Banaitis, 2006). Cheng and Li (2004) posit that existing literature on contractor selection mainly deals with how to identify and assess the criteria to make the most appropriate decisions. A study conducted within the United Kingdom (U.K) construction industry indicated that some of the contractor selection decisions were based on cost (Holt, 1995; Holt 2014). These practices, however, are characterized by major weaknesses, because achieving lower costs does not necessarily give the best value. On the other hand studies in the United States of America indicate that contractor selection is mainly by alternative procurement methods (APM) in which ownership (of decision making) and responsibility for design and operation is passed to the contractor with the state adopting a regulatory role (Regan, 2012). Regan posits that evidence suggests that the APM is achieving better time and cost performance than adversarial methods and contributing to improved service delivery and lower

lifecycle costs. It is not, however, proven whether the APM is applicable in all procurement set ups where contractor selection is critical.

Other studies have been undertaken by experts regarding the issue of contractor selection for implementing construction projects. Holt (2015) identified prequalification criteria to be included in the quantitative model for choosing main contractors. They further noted that, Holt (2016) explained the cluster analysis technique in a contractor valuation and selection setting. Though technical ability and financial soundness are critical requirements for the contractor to perform, the challenge may be the process and procedures of selecting the contractor. Bubshait and Al-Gobali (2016) determined the criteria that are considered in prequalification practices for private and semipublic projects in Saudi Arabia. Hatush and Skitmore (2014:2), 'revealed that the choice of contractor should be made on a value for money basis rather than automatically accepting the lowest bid because the main objective is to identify best tender not lowest bidder. Hatush and Skitmore (2015) focused on identifying universal criteria for prequalification and bid evaluation. Their results show that the most common criteria considered by clients are those pertaining to financial soundness, technical ability, management capability and health and safety performance of contractors.

Hatush and Skitmore (2015) described a systematic multi criteria decision analysis as a contractor selection method based on utility. Hatush and Skitmore (1997) investigated the perceived relationship between twenty contractor selection criteria and project success factors in terms of time, cost and quality. He sampled eight experienced construction personnel, including two validators. The results of the research indicate "past failures, financial status, financial stability, credit ratings, experience, ability, management personnel, management knowledge" as the most dominant in Contractor Selection Criteria. The above study focused on what causes

contractors to fail in projects implementation but did not address what would lead to a weak contractor being selected. Sodangi and Amra (2015) investigated a selected sample of 150 construction professionals operating in Malaysia to identify the actual criteria used by clients for the selection of contractors from the current practice in Malaysia. The results showed that track performance, financial capacity and technical capacity were the most important criteria considered crucial for the selection of contractors in Malaysia. The study also focused on the criteria and not the entire process of contractor selection and possible challenges.

Schmitz and Platts (2014), note that the most common issues that procurement synthesis staff has to face are the constant rush and lack of operational planning in selecting contractors. Flexibility in contractor selection can have an influential role in the procurement process, for example in the definition of the contents of the procured item and its goals (Bagaka & Kobia, 2010).

On the contrary, the aims and goal of contractor selection and how this is connected to the whole service delivery is often left out from the definition. The conclusion and recommendations of the above authors mainly focused on the criteria for contractor selection, the researcher intended to widen the scope to include the effect of the staff competence and regulatory function in the conclusions and recommendations.

In Africa, empirical studies indicate that contractor selection is one of the main decisions made by the clients. In order to ensure that the project is completed successfully, the client must select the most appropriate contractor (Ocharo, 2013). According to Ocharo (2013), contractor selection process involves the use of different procurement and evaluation methods. Manthosi and Thawala (2012) and Ganderton (2012) identify the commonly applied procedures for contractor selection in construction projects in Africa as open competitive, selective, negotiation, and design and build tendering approaches. The open tendering procedure allows practically any

contractor to submit a tender for the work. This procedure involves either the client or consultant (on behalf of the client) placing a public advertisement giving a brief description of the work. Normally the client will require a cash deposit when contract documents are requested (Manthosi and Thawala, 2012). The study by Manthosi and Thawala (2012) mainly relied on secondary data; however, the current study relied on both primary and secondary data.

The procurement law clearly defines the procedures for contractor selection leading to contract awards. Different kinds of methods can be applied when the requirements are fulfilled. The available options include a negotiated procedure, direct award of contracts, competitive dialogue, framework agreement and design contests (Cheng and Li, 2004). Prior information notice, contract notice and contract award notice and possible other notices depending on the method of contract award need to be published by the contracting authorities. An important factor to be considered is fixing the appropriate time limits for a tender. The time limits can be shortened or extended when the arguments respond to the requirements (Cheng and Li, 2004). The two authors are silent about the loopholes within the procedure which is a central issue that this study bridged.

Contractor selection has become a priority for public entities. In a developing country like Uganda, having an effective contractor selection system is still a major challenge to many public entities (Oluka, 2013). Contractor selection is one area that needs careful attention from all stakeholders in public entities because it has a huge budget and if this budget can be managed in an accountable manner, then there was improved service delivery and this is one way of accounting to the tax payers (Muhwezi, *ibid*). Muhwezi (2013) contends that Public Procurement and Disposal Authority (PPDA) must play a central role in providing training, technical guidance

and ensuring compliance to all set rules hence this study tested the authenticity of the principle and its applicability.

Sabiti, Basheka and Muhumuza (2011) in their study on developing public procurement performance measurement systems in developing countries, the Uganda experience, note that proper contractor selection influences procurement performance. The nature and extent of contractor selection will vary between organizations (Muhwezi, 2012). It can be influenced by the nature and the type of relationship the agency has with the contractor both in the short and the long term. Contract selection revolves around selecting the right contractor (Muhwezi, *ibid*). The PPDA Act of 2003 recommends different procurement methods namely open competitive bidding method, restricted bidding method and direct award. The default method for procurement for road works is open competitive bidding method. It is not clear as to how this and other methods affect the performance of road projects on time, cost and quality.

Open tendering is a competitive public procurement method used for acquiring goods, services and infrastructure works; this method is most favoured as observed by (Murdoch and Hughes 1992). In the study conducted by Merna and Smith (1990), competitive tendering is seen as the best way to select a contractor with the lowest price. It was argued in the above studies that using lowest price as a yardstick for selecting contractors ensures that the client gets value for money through free and fair competition. However, this argument was challenged by Dawood (1994), Pasquire and Collins (1997) who argued that the lowest contemporaneous price is not a guarantee for yielding the overall lowest project cost after execution. It should be noted that it is common for contractors to adjust their bid prices in an attempt to underbid fellow competitors and to win contracts which they may not be qualified to undertake.

This practice was supported by Kwakye (1994) and Herbsman and Ellis (1992) who argued that contractors unrealistically lower bids in some open tenders and they cautioned that lowest price syndrome does not guarantee best product. Similarly, Holt(1995) observed that research has evidence to indicate that contracts awarded under open competition are less successful and exhibit greater divergence between final contract value and tender value than contracts awarded by other means. It is likely that competitive tendering serves to increase contracting uncertainty arising from estimating errors or the deliberate submission of an unrealistically low bid. The practice of reducing a bid to the value that the contractor believes is sufficiently low to win the job also exposes clients to the risk of opportunistic behaviour such as post-contractual claims and price overruns (Crowley and Hancher, 1995a). This position is supported by Lysons and Farrington (2006) who argues that although it is presumed that this open competitive method fosters effective competition and adds value for money; there are arguments to the contrary, given that the open tendering method is strictly procedures-based. This therefore raises the argument that open competition may not be suitable for complex procurements where the focus is more on the output and outcome of the contracting process rather than on strict adherence to standard procedures.

On the other hand, Restricted Tendering Method limits the request for tenders to a selected number of contractors (Lynch, 2014). According to the PPDA Regulation (2014), the restricted procurement method is a two-stage process. The first stage, the employer advertises his project under open completion inviting contractors to express interest to be placed on a selected list of contractors to be invited to bid for the project. Stage two, the shortlisted contractors who meet the selection criteria are then invited to submit a more detailed tender submission. Oluka (2013),

in her article on procurement performance, notes that contractors applying are given a list of information they should supply about themselves in order to 'pre-qualify.

According to the PPDA Act (2003) any decision to use the restricted tendering procurement method is based on the fact that there limited providers and it use shall must conform to the policies and procedures governing the procurement system. And the basic characteristic of this method is that competition is confined to a certain number of firms either because only a few firms are qualified to fulfill the specific type of requirement, or certain conditions warrant the use of a limited number of firms in order to reduce the time and cost of the selection process. Although considered a competitive procurement method, competition is limited to only firms shortlisted and the method involves two processes and typically takes longer than the open competitive process which may result in the contractor submitting speculative bids. Oluka (2013) posits that some methods used in Uganda such as restricted tendering method limit contractor selection to a number of contractors.

Direct procurement is acquisition of goods, services or works from only one source. This is a non-competitive procurement method used when there is a very tight deadline, or emergency works (Ntende, 2011). PPDA Act, 2013 requires, under direct procurement, the PDE to invite directly one contractor to submit a bid for a project based on the set rules (Muhwezi, 2013). It is assumed a directly procured contractor has a good chance of performance because, more often than not, it is based on previous satisfactory working together by the employer and the contractor. Although assumed to take a shorter time it may be costly since the contractor has no competitors. Important to note, evaluation of bids is also a critical stage in the process of selecting a contractor from a number of bidding contractors that have submitted bids for a

specified project (Nguyen, 2015). Huang (2011) argues that bid evaluation is one of the major challenges that face owners and consultants in the public and private sectors. According to the PPDA Act of 2003, the applicable bid evaluation methods for works are technical compliance selection and quality-cost based selection method. The gap identified is that there is need to objectively gauge the ability of a contractor to properly manage a construction project following the frameworks created to evaluate the contractors' bids.

Evaluation of bids is done through a verification process that begins with categorizing of whether the candidates are suitable or not. After that the contracting authorities can exclude tenderers from the tender competition if they meet the exclusion criteria (Muhwezi, 2013). Measuring the suitability of the candidates is based on the financial situation of the bidder as well as their technical performance and professional qualifications. The contracting authorities must select the offer that presents the economically most advantageous solution or the selection can be made based on the lowest price (Oluka, *ibid*). Ocharo (2013) notes that in many cases, the contracting authority mentions that alternative solutions and offers are not accepted which limits the creativity of the suppliers. However, where flexibility is allowed, productivity can be increased through new ideas and solutions. This can be achieved through emphasizing development responsibility and the effects of the procured item. The selection criteria is essential for ensuring that the needed services meet the requirements and needs of the buying organization (Ocharo, 2013). Therefore, emphasis on the determination of the weight values should be established.

When the service and its goals require more immaterial wealth, placing more emphasis on the quality weight values is worthwhile. On the contrary, when the acquired service is a routine job, the price can have a bigger role in the definition of the weight values (Oluka, 2012). In many

cases, however, the opportunity to use innovation and cooperation ability as one of the subcategories of quality weight values is not utilized. Oluka(2012) noted that this offers another opportunity to use innovation in the procurement process of the organization. Conceptually, this study revealed the critical components of contract selection detailing the processes, procedures and practices which this study evaluated.

2.3.3 Contractor Monitoring and Performance

Contractor monitoring is a management aspect that involves active monitoring and control of the relationship between the supplier and the contracting authority. Contractor monitoring involves those activities performed by employer/client after a contract has been awarded to determine the performance of the contractor in meeting the terms and conditions of the contract. It encompasses all dealings between the employer and the contractor from the time the contract is awarded until the work has been completed. Hinton (2003) in his study on the “Best practices in government: Components of an effective contract monitoring system”, notes that, until recently the different portfolio managers have been responsible for determining the cost savings and other effects of procurement on their own. According to Hinton (2003), contractor monitoring is a process of ensuring that a vendor adequately performs a contracted service. It focuses on collecting and analyzing information in order to provide assurance on the performance of the contractor as regards agreed timeframes in provision of the contract deliverables. Hinton (2003) further, in his study, carried out in England identifies capacity of employees; written policies and procedures; contingency plans; clear communication of expectations to vendors, performance measures, and post-award meetings; administration plan; organized contract files as effective components for contract monitoring.

The other components Hinton mentions are timely payment; regular reports; access to records and right to audit; and, dispute resolution procedures (Hinton, 2003). Hinton notes that acceptable performance monitoring approaches must be applied and these approaches may include direct monitoring by the procuring agency, independent third party monitoring or a combination of the two approaches. He further says direct contract monitoring approach ensures that the agency is in control of the monitoring process. Although this may allow timely resolution of any problems that are detected, it may increase the costs to the agency since this may need staff recruited on permanent basis hence the rise in wage bill.

While these are crucial components, not all contracts are monitored using the same components to measure success (Arrows, 2010). Arrows (2010) argues that Key Performance Indicators (KPIs) should be clearly set within the contract and then measured, reported and monitored on a regular basis. Arrows (ibid), further observes that while significant contract monitoring occurs when the contractor is actually performing the service (contract period), preparation during the pre-contract period is essential to effective contract monitoring. In the proposed study, contract monitoring involves those activities performed by the employer after a contract has been awarded to determine how well the government and the contractor performed to meet the requirements of the contract. It encompasses all dealings between the employer and the contractor from the time the contract is awarded until the work has been completed.

Rendon (2010), in his study on the 'critical success factors in government contract management, outlines qualified workforce, clear processes, relationships, resources, leadership and policies as critical success factors for contract management. All these have a direct impact on an organization's contract management processes as well as resulting outcomes (Rendon, 2010).

The problem was assessed based on qualitative methodological approaches compared to this study whose problem was assessed based on mixed methodological approaches.

Arrows (2010) in his book on contract monitoring noted that contract monitoring is essential for achieving the most profitable benefits from supplier relationships and to optimize total costs of the procurement function. On the other hand, Donovan (2013) in a theoretical underpinning of the challenges of contractor monitoring in Canada, asserts that the important issue in monitoring a supplier's performance is deciding who is best placed to actually monitor that performance. The supplier's performance must be assessed objectively against criteria that are pre-determined, clearly understood and agreed upon by both parties in the conditions of the contract (Donovan, 2013). In bridging the gap, this research is not contrary to the idea of contractor monitoring which includes monitoring and controlling operations. In bridging the gap, the study applied some of the above components to test the effect of contract monitoring on performance of road infrastructure projects in Uganda.

Hinton (2003) asserts that the main aim of contract monitoring is to ensure that that a vendor adequately performs a contracted service or works on time, at the agreed cost. This implies developing effective working relationships with your providers, ensuring effective service delivery and providing consistent quality for stakeholders and end users (Hinton, 2003). Hinton further posits that the primary goal for contractor monitoring within any company is to ensure that commitments and obligations to customers and suppliers are clearly visible to the relevant people in the organization and that they are executed upon. Typical contract monitoring is goal oriented, aimed at ensuring enforcement of the contract terms and conditions while giving attention to the achievement of the stated output and outcome of the contract (Davidson and Sebastian, 2009). They observe that contract monitoring, is about much more than simply the

enforcement of the contract language. It requires the contract manager to remain focused on the program goals and objectives. Contracts are used to control virtually every part of the trading relationship between buyers, sellers, and intermediaries, and have an impact on various functions within the enterprise (Arrows, 2010). For example, the sell-side involves sales, marketing, finance, legal, sales operations and customer service. The earlier study pre-tested the results based on qualitative approaches. In bridging the gap, this study pre-tested the results using both quantitative and qualitative methodological approaches.

Agere (2009), in his study on the effectiveness of contract management in Austria, noted that contract monitoring requires the systematic management of contract creation, execution, compliance and analysis to maximize performance and minimize risk (Agere, 2009:71). With the increase in the complexity of doing business in public entities coupled with the increase in transaction volumes and ever tightening regulatory framework, entities are taking note of the importance of proper monitoring of contractors (Bagaka & Kobia, 2010). The missing link on the earlier study is on the sampling techniques used. Non probability sampling techniques, specifically convenient sampling, was adopted to select the sample. The current study relied on both probability and non-probability sampling techniques to select the sample. In creating a nexus between the earlier study and this study, the researcher introduced the aspect of contractor selection and contractor monitoring and incorporated them within his study.

Contractor monitoring is the active control of the contract between the procuring and disposing entity and the contractor, in order to ensure delivery of a cost effective and reliable service at an agreed standard and price. It is the final stage in the bidding process and marks the beginning of a contractual relationship between the procuring and disposing entity and contractor in the process of managing and administrating over the contract implementation (Muhwezi and

Ahimbisibwe, 2015). Contractor monitoring cycle is the process of systematically and efficiently managing contract creation, execution and analysis for maximizing operational and financial performance and minimizing risk (Kamya, 2011). Mbalangu (2013) in his study on compliance monitoring and procurement performance carried out in Uganda, notes that supplier contractor monitoring has slowly become an important component for effective supplier relationship management that is directly linked to securing the supply of key commodities needed for sustaining business. On the other hand, Kansiime (2014) in his study on the impact of public procurement reforms on service delivery in Uganda; notes that monitoring of this formalized relationship allows an organization a degree of control over the deliverables and performance requirements.

The use of contracts in business relationships has long been the lifeblood of a business, as the contracts provide the terms, pricing, and service levels of customer - supplier relationships (Mbalangu, 2013). Contracts provide a framework by which an organization manages and mitigates risk in its supplier relationships (Mbalangu, *ibid*). As a result, contracts have become the living documents that control the dynamics of everyday business in an ever increasing fashion. The above study adopted qualitative techniques of data analysis compared to the current study that adopted mixed methodological approaches of data analysis. The above studies, however, are not explicit on how contractor monitoring affects performance of projects and which aspects of contractor monitoring one has to focus on in order optimize contractor performance on projects.

In other related studies in Uganda, Oluka and Basheka, (2014) examined the determinants and constraints of effective contract management and its implications on service delivery. The study

was motivated by persistently low compliance levels reported by procurement authority as far as contract management is concerned. Data was collected using a closed ended questionnaire and the study identified determinants for effective contract management. These include clear definition of processes and having in place contract management plans, appropriate methods of capturing key lessons from contract management process, accurate definition of roles and having a knowledgeable contract Manager. Alinaitwe, Apolot and Tindiwensi, (2013) investigated the causes of construction project delays and cost overruns in Uganda's public sector with an intention of ranking them according to their frequency, severity and importance. A total of 30 projects at Civil Aviation Authority were reviewed. Five most important causes of delays and cost overruns were found to be changes in the work scope, delayed payments to contractors, poor monitoring and control and high inflation and interest rates. Ahimbisibwe, Muhwezi & Nangoli (2012), examined the relationship between supplier opportunism, contract management and service delivery in outsourced contracts in Uganda. The study was conducted in the 116 Procuring and Disposing Entities in Uganda and the findings reveal that supplier opportunism and contract management are significant predictors of service delivery. This study, however, does not address the impact of supplier determination process on contractor performance.

In another study, Oluka (2013) made a theoretical examination of the challenges of procurement contract management and their implications on the delivery of public services. The review concludes that contract management success is strongly influenced by what happens at tendering and award phase. She noted that contract management should be a continuum planned from the start of the procurement process. However, these studies do not provide a detailed analysis of how contractor monitoring affects project performance. In creating a nexus between the earlier

studies and the current study, contractor monitoring was looked at in this study from both the internal and external aspects (Kamya, 2011), and it was measured in terms of compliance monitoring, communication, and records management and reporting

2.3.4 Road Infrastructure Performance

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Procurement performance measurement; the process of quantifying the efficiency and effectiveness of actions has received increasing interest since the late 1980s (Lubega, 2010). Lubega (2010) who conducted a study on performance measurement systems notes that efficiency can be measured from the purchasing organization's context where the personnel, management, procedures, policies, and information system issues are considered (Lubega, *ibid*). In Uganda, measuring performance of infrastructural projects draws a considerable amount of attention from professional associations, scholars and practitioners, although the attention is there, it still remains wanting.

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condition, and the remaining 27 percent are in poor condition (World Bank, 2011). The World Bank reports give a general picture on the performance of the road project in Uganda and other African countries however in creating a nexus between the earlier study and this study, the researcher introduced the aspect of contractor selection and contractor monitoring and incorporate within his study.

2.3.5 Oversight Role of PPDA

The oversight is a role or function of governmental bodies such as agencies like the Public Procurement and Disposal of Public Assets Authority (PPDA) and the Procurement Appeals Tribunal in the case of Uganda (PPDA Act, 2003). These agencies are specifically created to monitor and enforce compliance with the specific procurement laws. The other oversight bodies, in the case of Uganda, that participate in enforcing procurement laws are Inspectorate of Government and office of the Attorney General. The PPDA is mandated to set standards, monitor and enforce compliance through conducting of audits and responding to complaints by bidders. A number of occasions the PPDA in executing its mandate intervenes in the procurement process to address complaints raised. On the other hand, the office of Attorney General constitutionally is involved in clearing all draft contracts before they are signed by the PDEs. The other important oversight function is done internally in the Entity where the procurement structures under the law made up of Accounting Officer, Contracts Committee, User Departments, Procurement and Disposal Unit and evaluation committee act independently to oversee the procurement processes. There is no specific literature available on the influence of the oversight agencies on performance of the road infrastructure projects in Uganda. The researcher sought to establish the effect of the oversight agencies on contractor selection and monitoring and performance of road infrastructure projects in Uganda.

Byaruhanga(2016) notes that most times PPDA experts and professionals render advice to authorities that are in need of their services for example NSSF, UNRA, URF etc. This is aimed at preventing cases of abuse of procurement procedure in these authorities. PPDA has an advisory role and so there is a team of lawyers playing this role. Noncompliance issues are always realized when making an audit report. For central government departments they are always audited annually. However, some departments in government have ignored PPDA advise.

Muzaale (2016) noted that PPDA conducts this through Performance Monitoring which involves activities like compliance monitoring, procurement audit and investigations and Administrative Reviews. PPDA also has a duty to come up with various Laws and harmonize the existing ones to ensure applicability, conduct capacity building and give advisory services to the Entities. Whereas the Authority has put in place structures and guidelines for the implementation of the procurement and disposal function, there has been less value addition to the procurement function by the Authority.

Byaruhanga(2016) asserts that due to bureaucratic tendencies, there have been a lot of delays in the implementation of the procurement and disposal functions ranging from the mandatory timelines in the law for some activities for example minimum bidding periods, display period and so on to the many levels of approvals at various levels in the Entity. This is because the PPDA Act has left very little or no room for creativity within the procurement and disposal function since its assessment and evaluation is majorly based on the PPDA Law. Although some powers are provided in the Act (PPDA), the authority does not invoke the law most times hence weakening its role.

Basheka(2016) asserts that PPDA has not helped the Entities on making decisions on peculiar issues where the Authority has been seen insisting on the Law even where its applicability is

difficult given the nature of procurement and the service providers/suppliers involved. A case in point is for some contracts, suppliers have their pre-determined terms and conditions of contract, requiring 100% advance payment and so on. The Authority has not been seen acting proactively to help such Entities on how best to acquire the procurement and at the same time achieving value for money.

Muzaale(2016) noted that as part of the oversight role, PPDA is supposed to advise government on procurement systems and practices and also propose harmonization. Entities and Procurement practitioners are complaining about lack of flexibility in PPDA Act and Regulations to allow public procurement decisions to be done in a business sense. PPDA ought to come out strongly to proposing amendments in the law and make proposals that enhance efficiency in procurement process. PPDA has put more focus on enforcing compliance with the current law without considering the dynamics in services delivery. It was further observed that the authority's performance is below expectation when it comes to management of complaints in the procurement processes i.e Administrative Reviews and Investigations. The Authority has not helped the entities to Promote economic efficiency through this function. It was observed that a number of administrative were on failure by the entities to properly interpret what is a minor omissions or material deviations in the bids during evaluation.

2.4 Summary of the Literature Reviewed

The literature review above confirms that different scholars have conducted several studies to establish the correlation between contractor selection, contractor monitoring and performance of projects. However, a number of gaps have been identified as per the literature reviewed which this study bridged.

Contractor selection: Best value contracting methodology is what most authors emphasize in their conclusions and recommendations. In bridging the gap, the researcher noted that the bid evaluation process is executed on merit if it is to yield fruits.

Contractor Monitoring: The majority of the authors noted that management of the procurement process is not administered by qualified, competent and experienced procurement professionals as based on the literature. In bridging the gap, good procurement standards have to be followed in order to achieve high levels of efficiency and effectiveness, if gaps in procurement are to be bridged.

Oversight role of PPDA: As Basheka (2012) noted PPDA issues guidelines to entities emphasis detailing how to ensure professionalism, commitment accountability within the public agencies dealing with road projects at the same time as raising strategic awareness of procurement and contractor management among UNRA Officers and Staff. In bridging the gap, the authors are silent on the risk provision yet PPDA is tasked to provide prior risk based reviews on high risk/high value procurement especially public infrastructure projects.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This Chapter presents and describes the approaches and techniques the researcher used to collect data and investigate the research problem. They included the research design, study population, sample size and selection, sampling techniques and procedure, data collection methods, data collection instruments, data quality control (validity and reliability), procedure of data collection, data analysis and measurement of variables.

3.2 Research Design

A descriptive cross sectional survey design was adopted in the study. According to Creswell (2009), a design is an overall plan of an empirical study. This design was used where there is a cross section of respondents and data is collected from them at a single point in time. A cross sectional survey provided a systematic description that is as factual and as accurate as possible (Amin 2005). The study also applied quantitative and qualitative approaches. Quantitative designs therefore helped to describe the current conditions and investigate the established relationships between the identified variables. Quantitative approaches were employed when sampling, collection of data, data quality control and in data analysis. This study also applied qualitative approaches which involved an in-depth probe and application of subjectively interpreted data (Sekaran, 2003). Qualitative research enabled the researcher to gather indepth information about the study for example unstructured qualitative interviews served this purpose.

3.3 Study Population

Population refers to the whole group of individuals, events or objects having same observable characteristics. Participants made up the study population (Sekaran, 2003). The study population is 1200 (UNRA Prequalified Contractor Statistical Abstract (2016), Project Engineers, Uganda Association of Consulting Engineers (UACE), and Institute of Procurement Professionals of Uganda (IPPU) but of these the target population was 159. Given that it is not possible to access the entire study population, the researcher focused on 159. The target population included Engineers from Uganda National Roads Authority (UNRA), other respondents were selected from staff of Procurement and Disposal Units under Central Government Entities involved in procurement for infrastructure projects (Procurement Professionals), Association Uganda Association of Consulting Engineers (UACE) and Uganda National Association of Building and Engineering Contractors (UNABCEC).

3.4 Sample Size and Selection

The sample size of the study was determined using statistical tables of Morgan and Krejcie (1970) table. A sample of 145 was chosen from a population of 159, according to the Morgan and Krejcie (1970), this sample is sufficient.

Table 3. 1: Population, Sample Size and Sampling Techniques

Category	Population	Sample size	Sampling Techniques
Procurement Professionals*	20	20	Simple random
Private Consulting Engineers (UACE)	24	23	Simple random
Project Engineers	55	49	Simple random
Contractors	60	53	Simple random
Total	159	145	

**(PDE handing Infrastructure projects)*

Source: *UNRA Prequalified Contractor Statistical Abstract (2016), Uganda Association of Consulting Engineers (UACE), Institute of Procurement Professionals of Uganda (IPPU)*

3.5 Sampling Techniques and Procedure

The proposed study adopted probability sampling, or random sampling, which is a sampling technique in which the probability of getting any particular sample may be calculated (Ezeani, 2005:44). The advantage of probability sampling is its lower cost compared to probability sampling. Simple sampling was adopted in sampling procurement professionals, private consulting engineers (UACE), project engineers. According to Creswell (2009) simple sampling ensures that every member has an equal chance of being recruited into the sample. A sample frame was constructed and then the members were randomly sampled.

3.6 Data Collection Methods

Both primary and secondary data was obtained which is qualitative and quantitative in nature.

3.6.1 Questionnaire Survey

A questionnaire is a written set of items to which respondents record their responses, usually within rather closely defined alternatives (Bill, 2011). A questionnaire was used because it allowed in-depth research, to gain firsthand information and more experience over a short period of time (Creswell, 2003). The questionnaire is used because the information had to be collected from a large sample in a short period of time and on the other hand the respondents could read and write (Bill, 2011).The researcher chose to use the questionnaire survey because it is practical, large amounts of information can be collected from a large number of people in a short period of time. The questionnaire is cheap and fast to administer. Questionnaire survey as a method increases the degree of reliability as well enhances the chances of getting valid data (Amin, 2005).

3.6.2 Interviews

An interview is a conversation between people where items are asked by the interviewer to elicit a response or statements from the interviewee (Basheka, Barifaijo and Oonyu, 2010). Person to person interviews were conducted with a selected number of respondents. Interviews were used because they have the advantage of ensuring probing for more information, clarification and capturing facial expression of the interviewees (Amin, 2005). In addition they gave an opportunity to the researcher to revisit some of the issues that had been an over-sight in other instruments and yet they are considered vital for the study. Interviews were used to explore in details the study variables

3.6.3 Documentary Review Method

According to Creswell (2009), the documentary review checklist entails reviewing documentary data. According to Groves, Fowler, Couper, Lepkowski, Singer and Tourangeau (2009), documents can be helpful in the research design of subsequent primary research and can provide a baseline with which the collected primary data results can be compared to other methods. Documentation cannot be underestimated as it provides necessary background and much needed context both of which make re-use a more worthwhile and systematic endeavor. Secondary data was obtained through the use of published and unpublished documents. According to Amin (2005), secondary data can be helpful in the research design of subsequent primary research and can provide a baseline with which the collected primary data results can be compared to other methods.

3.7 Data Collection Instruments

The key data collection instruments that were used are questionnaires, interview guide and documentary review checklist.

3.7.1 Questionnaire

A questionnaire is a written set of items to which respondents record their responses, usually within rather closely defined alternatives. The questionnaire was used on the basis that the variables under study cannot be used, for instance, respondents' views, opinions, perceptions and feelings. The questionnaire was used because the information had to be collected from a large sample in a short period of time yet the respondents given that the respondents can read and write (Bill, 2011). In this study, a self-administered questionnaire was used to draw information regarding the study. The researcher chose the questionnaire as a tool because the study was descriptive and the tool is an easy method of data collection. The questionnaire consisted of closed ended questions purely structured in nature whose variables were measured on a 5 point Likert scale (5 Strongly Agree, 4 Agree, 3 Not sure, 2 Disagree and 1 Strongly Disagree). The 5 point Likert scale is the most relevant means to formulate the different questions for measuring different items from different variables. A copy of the questionnaire is attached marked appendix I and II.

3.7.2 Interview Guide

An interview is a conversation between people where items are asked by the interviewer to elicit a response or statements from the interviewee. The interview guide was adopted to collect the data. Interviews are face to face verbal communication in which one person or a group of people was interviewed at a time. Interviews were used because they have the advantage of ensuring

clarification and capturing facial expression of the interviewees (Barifaijo, Basheka and Oonyu, 2010). In addition they also give an opportunity to the researcher to revisit some of the matters that may be an over-sight in other instruments and yet they are considered relevant for the study. The interview guide was unstructured containing items on all variables of the study. The interview guide contained items on each variable. The interviews were conducted with a few selected respondents. Interviews were used given that they have the advantage of getting first-hand information (Basheka, Barifaijo and Oonyu, 2010). A copy of the interview guide is appended marked appendix III

3.7.3 Documentary Review Check List

The documentary review checklist was used for purposes of reviewing documentary data. Documentary data was obtained through the use of published and unpublished documents. Various publications, magazines, newspapers reports, contract documents, historical documents and other sources of published information were reviewed by the researcher. Amin (2005) maintains that secondary data can be helpful in the research design of subsequent primary research and can provide a baseline with which the collected primary data results can be compared to other methods. A copy of the documentary review checklist is appended marked appendix IV

3.8 Quality Control of Data Collection

Data quality control techniques ensured that data collected is valid and reliable; the instruments were first tested to ensure validity and reliability.

3.8.1 Validity

Validity refers to the truthfulness of findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Amin, 2005). The validity of the instrument quantitatively was established using the Content Validity Index (CVI). This involved the expert scoring of the relevance of the questions in the instrument in relation to the study variables. The instruments that yielded a CVI above 0.7 were within the accepted ranges. Basing on Amin (2005) that a CVI of more than 0.7 implies that the tool is valid; this finding suggested that all items used to measure each variable were relevant in measuring what they are supposed to measure hence the instruments were valid if the coefficient of determination is 0.7 or above. Further, the instruments were discussed with the supervisors and experts to ensure construct and content validity. The construct validity of the instrument focused mainly on ensuring that the respondents find the questions simple to understand and answer.

Content Validity results for the Instruments

Table 3. 2: Content validity Index Results

Content validity Index Results for Questionnaires		
Variables	Content Validity Index	Number of items
Contractor selection	0.888	05
Contractor monitoring	0.753	05
Oversight role of PPDA	0.767	05
Performance	0.794	05

Source Primary Data (2017)

Amin (2005) observes that in a survey, the least CVI recommended in a survey study should be 0.70 (or 70%). Some adjustments were made to make the questions more valid and all the results obtained were above 0.7. Sekaran (2003) considers 0.7 to be the standard value for validity of an item in the instrument

3.8.2 Reliability

Reliability of the instruments was established through a pilot test of the questionnaire to ensure consistency and dependability and its ability to tap data that would answer the objectives of the study. The results of the findings were then subjected to a reliability analysis. Quantitatively, reliability was established using the Cronbach's Alpha Reliability Coefficient test. Upon performing the test, if the values 0.7 and above, the items in the instrument were regarded reliable. Based on Cronbach's Alpha Coefficient, the scales for the variables was reliable. In the case of psychometric tests, must fall within the range of 0.7 above for the test to be reliable (Katebire, 2007).

Table 3. 3: Cronbach Alpha Reliability Results

Cronbach Alpha Reliability Results for Questionnaires		
Variables	Cronbach Alpha Reliability	Number of items
Contractor selection	0.764	05
Contractor monitoring	0.799	05
Oversight role of PPDA	0.778	05
Performance	0.752	05

Source Primary Data (2017)

Amin (2005) observes that in a survey, the least Cronbach Alpha Reliability result recommended in a survey study should be 0.70 (or 70%). Some adjustments were made to make the questions more reliable and all the results obtained were above 0.7. Sekaran(2003) considers 0.7 to be the standard value for reliability of an item in the instrument

3.9 Data Collection Procedure

The researcher through proper channels asked for an introductory letter from Uganda Management Institute which he used for purposes of introduction to the participants when collecting data from the field. The close ended questionnaire were administered in a period of a

week to all categories of respondents and after the instruments were collected and data analysed both quantitatively and qualitatively as presented in sub section 3.8. Interviews were conducted in a period of two weeks with a few selected respondents as explained in sub section 3.6.2.

3.10 Data Analysis Techniques

Data was analyzed using both quantitatively and qualitatively techniques of data analysis

3.10.1 Quantitative Data Analysis

Quantitative data got from the questionnaires was computed into frequency counts and percentage. Data was sorted using the Statistical Package for Social Scientists (SPSS) method. The researcher adopted bivariate analysis techniques in analyzing his data. Bivariate analysis is the simplest form of quantitative (statistical) analysis. In addition to frequency distribution, tables, mean, standard deviation and other measures of central tendency were used in data analysis. Regression analysis and Pearson's Product Moment Correlation Co efficient) was used to analyze the data.

3.10.2 Qualitative Data Analysis

Qualitative data collected from interviews and documentary review was sorted and grouped into themes. The researcher therefore evaluated and analyzed the adequacy of information in answering the research questions through coding of data, identifying categories and parameters that emerged in the responses (Glenn Firebaugh, 2013). While analyzing qualitative data, summaries was made on how different themes/variables are related.

3.11 Measurement of Variables

The independent variable (contractor selection, contractor monitoring) and the dependent variable (performance) was measured on a five point Likert type scale (1- strongly disagree, 2- Disagree, 3-Not sure, 4- Agree and 5-Strongly agree). The choice of this measurement is that each point on the scale carries a numerical score which is used to measure the respondents' attitude and it is the most frequently used summated scale in the study of social attitude. According to Bill (2011), the Likert scale is able to measure perception, attitudes, values and behaviors of individuals towards a given phenomenon.

3.12 Ethical Considerations

There are several reasons why it is important to adhere to ethical norms in research. First, norms promote the aims of research, such as knowledge, truth, and avoidance of error. For example, prohibitions against fabricating, falsifying, or misrepresenting research data promote the truth and avoid error. Second, since research often involves a great deal of cooperation and coordination among many different people in different disciplines and institutions, ethical standards promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness (Kaggwa, 2004). In order to promote ethics in the current study, respondent's names were withheld to ensure anonymity and confidentiality in terms of any future prospects. In order to avoid bias, the researcher used the data collected for the reason for which it is collected. For plagiarism, the report was subjected to the plagiarism test by Uganda Management Institute relying on turn it in software.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This Chapter presents the findings, analysis and interpretations to the findings. The findings are presented according to the objectives of the study. The study focused on the effect of contractor management on the performance of selected road infrastructure projects at Uganda National Roads Authority. The study was focused on the following research objectives: to examine the effect of contractor selection on performance of selected road infrastructure projects at UNRA, to assess the effect of contractor monitoring on performance of road infrastructure projects at UNRA and to assess the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA.

4.2 Response Rate

Presentation of tabulated data according respondent's response rate

Table 4. 1: Response Rate

Instrument	Target	Actual Response	Response rate
Questionnaire	145	102	70.3%
Interviews	10	09	80%
Total	155	111	71.6%

Source primary data (2017)

Table 4.1 above presents the response rate from the study. The number of questionnaires distributed were 145 and 102 were returned making a response rate of 70.3%. Face to face interviews were carried out with the respondents; in total 09 respondents were interviewed.

Creswell (2003) notes that a response rate above 50% of the target number is adequate

4.3 Findings on Background Characteristics of Respondents

This section presents findings on demographics of the respondents, namely; gender, age, education, working experience, and position of the respondent, below.

4.4 Gender characteristics of the Respondents

The gender characteristics of respondents were investigated for this study, and findings are presented in Table 4.2

Table 4. 2: Summary statistics on the gender of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	68	66.7	68.7	68.7
	Female	30	29.4	30.3	99.0
	Total	99	97.1	100.0	
Missing	System	3	2.9		
Total		102	100.0		

Source: primary Data (2017)

N=102

Table 4.2 shows that the majority of the respondents were male (68.7%) and female were (30.3%). Although the sex findings indicated a discrepancy in favour of males, the study was representative of all sexes since both males and female were included in the study sample. This implies that UNRA is an equal opportunity employer that employs people of both sexes.

4.5 Age of the Respondents

The study looked at age distribution of the respondents by age using frequency distribution. The results obtained on the item are presented in Table 4.3 below

Table 4. 3: Presents the summary statistics on the Age of the respondents

Age of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29	21	20.6	21.9	21.9
	30-39	40	39.2	41.7	63.5
	40-49	26	25.5	27.1	90.6
	Above 50	9	8.8	9.4	100.0
	Total	96	94.1	100.0	
Missing	System	6	5.9		
Total		102	100.0		

Source: primary data (2017)

N=102

From the above table, the majority of respondents who took part in the study were between 30-39 years implying 41.7% , 21.9 were between the age of 20 -29 , those between 40-49 years were 27.1% and those that were above 50 years were 9.4%. This shows that 72.1% of respondents were 30 years and above with only 21.9% below 30 years. This indicated that all categories of respondents in reference to different age groups were represented in this study.

4.6 Respondents by Highest Level of Education the Respondents

The table 4.3 presents the summary statistics on level of education of the respondents. By examining the highest educational qualifications of the study respondents, the researcher wished to ascertain whether there were substantial differences in the responses on contractor management and performance.

Table 4. 4: Distribution of Respondents by Highest Level of Education the Respondents
level of education of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Masters	35	34.3	36.1	36.1
	Bachelors	45	44.1	46.4	82.5
	Diploma	8	7.8	8.2	90.7
	Certificate	2	2.0	2.1	92.8
	Others	7	6.9	7.2	100.0
	Total	97	95.1	100.0	
Missing	System	5	4.9		
Total		102	100.0		

Source: primary data (2017)

N=102

The majority of the respondents were Bachelor's degree holders making a total percentage of 46.4%, the respondents with Masters were 36.1% and the respondents with Diplomas were 8.2% and the certificate holders were 2.1%. These results indicate that the respondents had good qualifications and the right skills and knowledge to deliver. Besides, the respondents were able to understand, read, interpret the questionnaire and gave relevant responses.

4.7 Respondents by Marital status of the Respondents

The table 8 presents the summary statistics on level of marital status of the respondents. There were differences in the responses on the relationship between contractor management and performance.

Table 4. 5: Distribution of Respondents by Marital Status of the Respondents

Marital status of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	58	56.9	60.4	60.4
	Single	34	33.3	35.4	95.8
	Widowed	2	2.0	2.1	97.9
	Divorced	2	2.0	2.1	100.0
	Total	96	94.1	100.0	
Missing	System	6	5.9		
Total		102	100.0		

Source: Primary Data (2017)

N=102

The majority of the respondents were married (60.4%) and the single were 35.4%. This indicated that all categories of respondents in reference to marital status were represented in this study.

4.8 Empirical Results on Contractor Management and Performance.

In this section, the empirical results for each of the specific research objectives is presented, analyzed and interpreted with an overall goal of demonstrating how contractor management and performance

4.8.1 Contractor Management and Performance

This item on independent variable (contractor management) were measured on scale referred to as the five-point Likert scale where code 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree. Descriptive data is as presented in Table 4.6.

4.9 Objective One: Contractor Selection and Performance

The items were structured basing on the objectives of the study. Items were measured on a five-point Likert scale where code 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree

and 5 = Strongly Agree and analyzed basing 7 items/questions which are statistically tabulated and presented in the table below with the frequencies and percentages according to the responses collected.

4. 6: Summary Statistics on Contractor Selection

Item Responses		Frequency	Percent	Mean	Std Deviation
The procurement procedures do not provide for flexibility in during selection	Strongly Disagree	3	3%	4.54	0.877
	Disagree	2	2%		
	Not sure	2	2%		
	Agree	24	23.8%		
	Strongly Agree	70	69.3%		
The current bid evaluation method is not appropriate for complex road infrastructure projects	Strongly Disagree	01	1.0%	4.12	0.986
	Disagree	10	9.8%		
	Neutral	07	6.9%		
	Agree	40	39.9%		
	Strongly Agree	43	42.2%		
The procurement process is too long and time consuming.	Strongly Disagree	04	3.9%	3.800	1.00
	Disagree	07	6.9%		
	Neutral	17	16.7%		
	Agree	49	48.0%		
	Strongly Agree	23	22.5%		
The procurement procedures give avenues for frivolous complaints during selection.	Strongly Disagree	01	1.00%	4.17	0.984
	Disagree	07	6.9%		
	Neutral	13	12.7%		
	Agree	30	29.4%		
	Strongly Agree	47	46.1%		
The current bid evaluation methodologies eliminate competent contractors on minor eligibility requirements	Strongly Disagree	01	1.00%	4.29	5.12
	Disagree	07	6.9%		
	Neutral	25	24.5%		
	Agree	44	43.1%		
	Strongly Agree	21	20.6%		
Some of the contractors selected lack competent personnel	Strongly Disagree	05	4.9%	4.38	4.19

	Disagree	04	3.9%		
	Neutral	15	14.7%		
	Agree	41	40.2%		
	Strongly Agree	36	35.3%		
Some of the contractor selected lack appropriate experience in similar works	Strongly Disagree	01	1.00%	4.17	0.984
	Disagree	07	6.9%		
	Neutral	13	12.7%		
	Agree	30	29.4%		
	Strongly Agree	47	46.1%		

Source Primary Data (2017)

N=102

As to whether the procurement procedures do not provide for flexibility in during selection, the respondent's responses indicated that cumulatively, the larger percentage (93%) of the respondents agreed and 7% disagreed. The mean = 4.54 was above the median score, three, which on the five-point Likert scale used to measure the items indicated that the respondents agreed that the procurement procedures do not provide for flexibility in during selection .

Responses to the question as to whether the current bid evaluation method is not appropriate for complex road infrastructure projects, (83.1%) agreed while 10.8% disagreed. The mean = 4.12 close to the median score, three, that indicated that the current bid evaluation method is not appropriate for complex road infrastructure projects.

With respect to whether the procurement process is too long and time consuming, cumulatively the larger percentage (70.5%) agreed with 10.8% disagreeing. The mean = 3.800 which corresponded to agreed indicated the majority of the respondents agreed that the procurement process is too long and time consuming.

However, (10%) of the procurement professionals noted that compared to other countries our procurement process is short and flexible. They attributed growing complaints against the process to failure to understand the process by some players. One of the procurement

professional respondents noted that “if those who are complaining about the length of the process sought our advice they would not find it long”.

A Procurement Professional from PPDA revealed that:

There is ongoing consultation on how the process can be even shortened, further to achieve better service delivery.

As to whether the procurement procedures give avenues for frivolous complaints during selection, cumulatively the larger percentage (75.4%) agreed with 7.9% disagreed. The mean = 4.17 meant that the procurement procedures give avenues for frivolous complaints during selection.

With respect to whether the current bid evaluation methodologies eliminate competent contractors on minor eligibility requirements, cumulatively the larger percentage (73.7%) agreed and 7.9% disagreed. The mean = 4.29 which corresponded to agreed indicated the majority of the respondents agreed that the current bid evaluation methodologies eliminate competent contractors on minor eligibility requirements.

Findings in relation to the item above revealed that there are various transparency problems common in bid evaluation processes. Notwithstanding the elements of price that a contracting authority chooses to evaluate, it must ensure that its preferred method is set out in the tender documents. It is important to provide bidders with sufficient detail to allow each bidder to interpret it in the same way and to allow them to take it into account when preparing their bids. The respondents were asked whether there are flaws committed at the bid evaluation stage during the selection for the road infrastructure projects. Findings revealed that lowest bid acquisition in UNRA has encouraged underperformance by the contractors since, after award, if they do not get a variation upwards in price from the entity they resort to undermining quality of the works. To

recover their lost profits, contractors then use substandard materials, poor workmanship, and take great risks to the health and safety of their laborers.

Responses to the question as to whether some of the contractors selected lack competent personnels (75.5%) agreed while 8.8% disagreed. The mean = 4.38 close to the median score, three, that indicated that some of the contractors selected lack competent personnel.

Survey findings revealed that the majority (71%) agreed with the item that stated that there is inadequate experience and skills among PDE staff are affecting contractor selection process. The computed test figures reveal that the mean is 3.76 indicating that inadequate experience and skills among PDE staff is affecting contractor selection process. .

A Consulting Engineer noted

Inadequate experience and skills among PDE staff are affecting contractor selection process since some of the members in PDE lack the professional qualifications and are just handpicked.

In Contrast Deputy Director of Audit at PPDA noted

Attitude not skills could be causing inefficiency among PDE staff and corruption spoils.

A procurement professional felt some contractors selected lack the appropriate experience and this is clearly seen from the works accomplished. The OAG Report (2013) noted that Mbale – Soroti road has been a particular nightmare for motorists. By the end of November 2012, the contractor (M/s Dott Services) had not delivered a complete stretch of the road and this was attributed to inexperience of contractor. It was also observed that even at the end of the contract the works done did not measure to the expected quality.

As to whether some of the contractor selected lack appropriate experience in similar works., cumulatively the larger percentage (75.4%) agreed with 7.9% disagreed. The mean = 4.17 meant that some of the contractor selected lack appropriate experience in similar works.

Some respondents felt that procurement flaws in contractor selection process have affected UNRA towards service delivery, this is attributed to the recent flaws on most road projects that forced His Excellency, the President of Uganda to intervene. However, some respondents from UNRA had mixed responses about the quality of service quality delivered by UNRA. According to the Road sector annual monitoring report (2015:1), UGX 1,728.778 billion was allocated towards upgrading key road in Uganda. Despite the availability of funds most of the roads have not been completed. The construction of Southern Bypass, Jinja Expressway and completion of the Entebbe Expressway roads intended to be hallmarks in a modern Uganda have been slow with some not started yet. The total cost of this road is expected to be \$1,100 million. Once completed, however, the road will be one of the most treasured infrastructural assets for Uganda for a long time to come.

The researcher during interviews sought to know whether procedural irregularities have affected road transport performance.

A Project Engineer in relation to that said;

During the construction of Kyetume-Mukono-Katosi road, UNRA did not engage the services of the Solicitor General or Attorney General, the principal legal advisers of government, according to minutes of one of the several meetings of the Contracts Committee held on July 18, 2013. A storm has been brewing since Shs24.7 billion was paid to Eutaw, the firm that won the tender to upgrade the road. The Inspector General of Government said it was not a genuine company.

The above indicates that entities still violate the procurement rules and procedures despite the emphasis put on compliance with the provisions in the PPDA Act of 2003 and the Regulations of 2014 by the key stakeholders.

It was established from the responses that 29% of the respondents agreed with the item that stated that the process of selection gives avenues for loopholes during selection. The procurement functions of most public entities sometimes do not comply with the set procurement process and performance procedures, leading to irregular and subjective decisions. According to the 2006 PPDA baseline survey report, procurement remains a high risk area characterised by irregular sourcing of suppliers, influence peddling, massive complaints of shoddy work, substandard quality of goods and services and inflated costs. This touches the heart of contractor selection and how it influences performance of road projects in Uganda.

A Private Consulting Engineer noted that;

The selection process for contractors has many loopholes which give good avenues to the corrupt to exploit and this is common in public agencies like UNRA

None of the officials from UNRA interviewed disagreed with the survey findings above; they all noted that the process of selection built on the current laws gives avenues for abuse and this is common in all public agencies not only UNRA. Similarly the procurement professionals interviewed agreed with the observation. They noted that selection is always tricky, the process is rigid, long and laborious. The process involves many players which creates unnecessary flaws, loss of confidentiality and abuse leading to rampant complaints. In spite of the cases of flaws in the procurement process growing, culprits are not being investigated or apprehended.

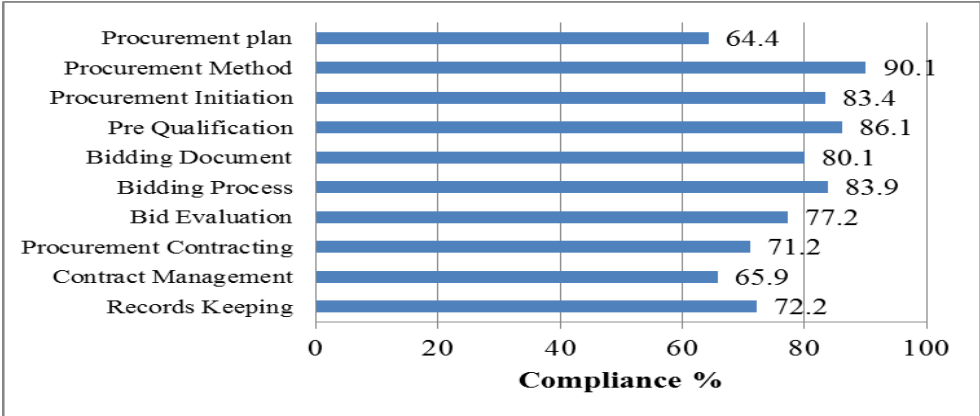
During interviews the respondents were asked about the growing irregularities in contractor selection and 35% of the interviewed attributed the irregularities to failure to develop plans. IGG Report (2010) notes that PPDA Act and Regulations requires an annual work plan with a detailed breakdown of activities of works, services or supplies to be procured by the public entities.

In relation to the question as to whether the entity comply with the procurement process as laid down in the law. The majority of the respondents agreed with the question representing 67% of the respondents.

A Procurement Professional serving as Audit and Compliance Officer at PPDA noted

There is need to reduce the period of display to 5 days instead of 10. This will help prevent the delays. The gaps in the law can be worked on.

Figure 4. 1: Average Procurement Process Compliance Level



The procurement functions of most public entities sometimes do not comply with the set procurement process and performance procedures, leading to irregular and subjective decisions. These decisions have had costly consequences for many public entities, and the country at large. At UNRA, there have been gaps in the procurement processes, bid evaluation inclusive. This has caused a lot of dissatisfaction among the public, that tax payers’ money is not being properly used and hence no value for money in road contracts. This could be as a result of the bid evaluation process being handled poorly. At UNRA gaps have also been identified in the contract management processes hence affecting service delivery. This could be attributed but not limited, to poor working relationship between the entity and the contractors. Lack of coordination affects service delivery

It was observed that at the procurement stage, some companies have also often been quoting lower bids; however after winning the contract, the costs tend to rise. A respondent from UNRA points out that UNRA only pays for works approved by the supervising consultant who he says is responsible for the quality and making sure the project is delivered on time. A company can be suspended for delayed works or poor works. Another respondent from UNRA, however, noted that low bid pricing could be the reason for the shoddy work on the Mbale – Soroti road which has become a nightmare for motorists. The contractor took long to accomplish the works but even after completion there is public outcry of poor workmanship by the contractor.

A respondent from Uganda Association of Consulting Engineers, however, noted that the problem with the Mbale – Soroti road was UNRA, because “the scope of works was changed while the contractor was already on site and the designs took long to complete. It is not entirely a problem of the contractor (Dott services). On the other side the same respondent observed that the broader picture for UNRA is to create a database of all contracts awarded. He noted that UNRA has been able to crack the whip on companies “that have not performed well over the last four years and we are no longer giving them jobs. On the item of contractor requesting for variation on price, the same respondent noted that 90% of the UNRA contracts have always been completed on prices higher than contracted. This is not due to low prices bids alone, but also on poor planning and road designs issued by UNRA.

4.10 Hypothesis Testing One:

Hypothesis One Stated that there is a significant effect of contractor selection on the performance of selected road infrastructure projects in Uganda. The hypothesis was tested using the Pearson correlation coefficient and the results of the hypothesis are given below.

Table 4. 7: Correlation Matrix for Contractor Selection and Performance of selected road infrastructure projects
Correlations

		Contractor selection	Performance
Contractor selection	Pearson Correlation	1	.476**
	Sig. (2-tailed)		.000
	N	102	102
Performance	Pearson Correlation	.476**	1
	Sig. (2-tailed)	.000	
	N	102	102

****.** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2017)

N = 102

The results in table 4.7 showed that the coefficient was .476**. This implied that contractor selection affects performance of selected road infrastructure projects. Therefore according to the results there is a positive significant effect of contractor selection on performance of selected road infrastructure projects. Therefore, the alternative hypothesis that was earlier stated in chapter one is upheld. The correlation coefficient is a numerical way to quantify the relationship between two variables, i.e the independent and dependent and it is indicated by the symbol R. The correlation coefficient is always between -1 and 1, thus $-1 < R < 1$. The hypothesis is rejected if the earlier hypothesis was alternate and the finally tested hypothesis is null and the vice versa. Example if the calculated value is greater than the P value we accept the hypothesis. A regression analysis was further done to determine the strength of the effect of contractor selection on performance of selected road infrastructure projects. Results are presented in the table 4.8 below.

Table 4. 8: Regression Analysis for effect of contractor selection on performance of selected road infrastructure projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.476a	.227	.217	9.86537

a. Predictors: (Constant), Contractor selection

Source Primary Data (2017)

The Adjusted R square value is 0.217; this implied that contractor selection explained only 21.7% of performance of selected road infrastructure projects. Therefore contractor selection predicts performance of selected road infrastructure projects by 21.7 %. From all the results the alternate hypothesis earlier stated in chapter one that there is a positive significant effect of contractor selection on performance of selected road infrastructure projects is therefore upheld.

4.11 Objective Two: the effect of contractor monitoring on performance of road infrastructure projects at UNRA.

The items were structured basing on the objectives of the study. Items were measured on a five-point Likert scale where code 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree and analysed basing 6 questions which are statistically tabulated and presented in the table below with the frequencies and percentages according to the responses collected.

Table 4.9: Summary Statistics on contractor monitoring on performance of road infrastructure projects at UNRA

Item Responses		Frequency	Percent	Mean	
There is poor record management on road projects	Strongly Disagree	04	3.9%	4.00	1.08
	Disagree	09	8.8%		
	Not sure	08	7.8%		
	Agree	42	41.2%		
	Strongly Agree	39	38.2%		
There are no regular site inspections on road projects	Strongly Disagree	01	1.0%	4.49	5.12
	Disagree	08	7.8%		
	Neutral	10	9.8%		
	Agree	54	52.9%		
	Strongly Agree	28	27.5%		
No technical audits are conducted during project implementation	Strongly Disagree	02	2.0%	3.48	0.958
	Disagree	12	12.0%		
	Neutral	37	36.3%		
	Agree	34	33.3%		
	Strongly Agree	15	14.7%		
Project expectations are not clearly communicated to contractors	Strongly Disagree	07	6.9%	3.14	1.02
	Disagree	19	18.8%		
	Neutral	33	32.7%		
	Agree	36	35.6%		
	Strongly Agree	06	5.9%		
Contractor performance appraisal is not done during project implementation	Strongly Disagree	17	16.7%	2.71	1.12
	Disagree	27	26.5%		
	Neutral	30	29.4%		
	Agree	24	23.5%		
	Strongly Agree	04	3.9%		

Source Primary Data (2017)

N=102

With respect to whether there is poor record management on road projects, cumulatively the larger percentage (79.4%) agreed with 12.7% disagreeing. The mean = 4.00 which corresponded

to agreed indicated the majority of the respondents agreed that there is poor record management on road projects.

Findings revealed that UNRA ensures that official records are created, captured and disposed of systematically. Accessibility to records is properly managed and can be relied upon. Proper records management training is provided to staff.

The interviews sought to determine whether administrators are supportive to procurement records management. All the four (100%) of the respondents interviewed indicated that their administrative sections were tasked with records management. They were then asked about the types of records that their administrative sections were tasked with and in the procurement staff said that they were mainly procurement records like invoices, receipts etc. The head of legal and compliance in UNRA noted that the UNRA promotes data sharing to an extent that it has created a platform called share point where by, all departmental records are kept centrally and can be accessed centrally for ease of access.

Respondents in the procurement unit were asked to what extent UNRA has complied with government regulations for records management. Three respondents stated that UNRA was complying with government regulations for records management.

Lastly, respondents were asked to list any challenges faced with regard to records management at UNRA. The responses from the questionnaires revealed a number of challenges that were being experienced at UNRA, as follows: lack of awareness of the importance of proper records management practices, presence of a records management policy and procedures but not well implemented, tremendous volume of older stored records (mainly physical records); very limited space in terms of placing physical records, too much dust leading to the damage of records and lastly lack of training and workshops.

With respect to whether delayed payment of contractors affects contractor monitoring, cumulatively the larger percentage (89%) agreed. The mean = 4.48 which corresponded to agreed indicated the majority of the respondents agreed that delayed payment of contractors affects contractor monitoring

Responses to the question as to whether there are no regular site inspections on road projects (78.4%) agreed while 17.8% disagreed. The mean = 4.49 close to the median score, three, that indicated that there are no regular site inspections on road projects.

As to whether no technical audits are conducted during project implementation, the respondent's responses indicated that cumulatively, the larger percentage (48%) of the respondents agreed and 14% disagreed. The mean = 3.48 was above the median score, three, which on the five-point Likert scale used to measure the items indicated that the respondents agreed that no technical audits are conducted during project implementation.

Responses to the question as to whether project expectations are not clearly communicated to contractors (41.5%) disagreed while 25.7% agreed. The mean = 3.14 close to the median score, three indicated that project expectations are not clearly communicated to contractors.

With respect to whether contractor performance appraisal is not done during project implementation, cumulatively the larger percentage (27.4%) agreed with 43.3% disagreeing. The mean = 2.71 which corresponded to agreed indicated the majority of the respondents agreed that contractor performance appraisal is not done during project implementation.

As to whether contract monitoring staff do not care to prepare contractor monitoring plans, cumulatively the majority percentage (70%) agreed. The mean = 3.66 indicated that contract monitoring staff do not care to prepare contractor monitoring plans.

A Procurement Professional noted that

Contract managers not appointed on time is a big problem and contract implementation plans not being prepared on time or not prepared and supervision lacking is a big problem

The respondents were asked to state whether there were approved procedures in place for contractor monitoring. The trend of responses 86.9% inclined to agreement. This was further reflected through the mean of 4.1 that indicated that the majority agreed with the item. There are approved procedures in place for contractor monitoring. Although these procedures are in place there seems to be laxity in following them.

A Contractor noted that:

The general public is not happy because there are a lot of delays in road projects in spite of the existence of monitoring procedures. The respondent further observed that some of the contractors have been branded by World Bank as inefficient and so advised UNRA not to contract any one of those branded.

It is stated clearly in OAG and PPDA Audit reports that delays in completing road projects and fraudulent acts are common phenomenon in Uganda. For example, according to OAG Report (2013), EnergoProjekt was blacklisted and suspended by the World Bank for two and half years. This was after “acknowledgment of misconduct in a World Bank-financed road project in Uganda.

In May 2012, an emergency session of MPs on the committee on physical infrastructure resolved to investigate Uganda National Roads Authority (UNRA) over road construction delays (PAC Report examined by the OAG, 2013). The lawmakers convened at Parliament and agreed to form a sub-committee of three engineers, who were tasked to do background research on UNRA (Hansard May, 2012). The delays of works were identified on more than 15 roads and shoddy

work on 5 roads that included the Tororo-Jinja, Kampala-Masaka, Tororo-Mbale, Mbale-Soroti, Fort Portal-Bundibugyo, and Jinja-Kamuli among others (PAC Report examined by the OAG, 2013).

A Project Engineer noted that;

The scope of works executed on Tororo - Mbale road generally comprised of drainage works, widening of the existing roadway to a 6.3m carriageway and 1.5m shoulder, raising of low lying road sections, recycling of the existing road base to form the design sub-base layer, construction of a new base layer through the mechanical modification of fresh gravel material with crushed run rock (CRR) and in the case of re-construction areas placing of a neat CRR base layer.

The above statement of the interviewee supports the view that the ability to realize road infrastructure goals has been a fiasco due to poor contractor monitoring.

Survey findings revealed that the majority (84%) agreed with the item that stated that Project staff do not care to communicate to contractors expected project goals and expectations. The computed test figures reveal that the mean is 4.33 indicating that project staffs do not care to communicate to contractors expected project goals and expectations

As to whether contract monitoring staffs do not bother to make appraisal of contractors during project implementation, the respondent's responses indicated that cumulatively, the larger percentage (79%) of the respondents agreed. The mean = 4.07 was above the median score, three, which on the five-point Likert scale used to measure the items. This implies that the majority of the respondents were of the view that contractor performance appraisal was not being done during project implementation. Contractor appraisal is critical because the results become helpful in subsequent contractor selection decisions.

A Respondent felt that contractor performance appraisal is done during project implementation and not in all agencies, but in some few. However, the opinion leaders (57%) had mixed responses about contractor performance appraisal being done during project implementation. They felt that the management of some public entities takes over the process hence overshadowing the contractor performance appraisal exercise.

The respondents at UNRA were asked how contractor monitoring is handled, It was evident during the interviews that when a contract is awarded, UNRA assigns a representative to manage the relationship between UNRA and the contractor, including managing any risks that arise, monitoring the performance of the contractor, and to ensure that the objectives of the project are being met. The reports from UNRA further confirmed that although project unit cost for road construction projects greatly varied from project to project, the average cost per km of double bituminous surface treatment upgrading works had reduced from Uganda Shillings 2.05 billion to UGX 1.84 billion. A total of 1,255 km roads were upgraded /rehabilitated / reconstructed and over 20,000km received periodic and routine maintenance by private local contractors. The average procurement time had reduced by 11 percent in 2011/2012 compared to 2010/2011. Quality of the road works had improved greatly (Ssebannakitta, 2013).

When the respondent went on ground to verify the above, she was told by a Consulting Engineer in relation to the above that;

I cannot say that we manage the contracts properly but we try to do so systematically and efficiently in terms of implementation, and administration for maximizing financial and operational performance and managing inherent risk. Contractor monitoring encompasses the life cycle of a contract and involves many stakeholders including, but not limited to the contract manager, the client department and the supplier.

What this means is that contractor monitoring encompasses the life cycle of a contract and involves many stakeholders including, but not limited to the contract manager, the client department and the supplier. In general, the level of effort required for contractor monitoring will vary depending on the value and complexity of the procurement. Low value or simple contracts may require only minimum management, while more complex contracts will require continuous monitoring by both the client and the contracting officer. A dedicated team of UNRA and supervising consultants may be assigned to large projects, where roles and responsibilities are defined in more detail.

4.12 Hypothesis Testing Two:

Hypothesis Two stated that there is a significant effect of Contractor monitoring on the performance of selected road infrastructure projects in Uganda. The hypothesis was tested using the Pearson correlation coefficient and the results of the hypothesis are given below.

Table 4. 10: Correlation Matrix for there is a significant effect of Contractor monitoring on the performance of selected road infrastructure projects in Uganda
Correlations

		Contractor monitoring	Performance
Contractor monitoring	Pearson Correlation	1	.427**
	Sig. (2-tailed)		.000
	N	102	102
Performance	Pearson Correlation	.427**	1
	Sig. (2-tailed)	.000	
	N	102	102

****.** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2017) N = 102

The results in Table 4.10 showed that the coefficient is 0.427**. This implied that contractor monitoring affects performance of selected road infrastructure projects in Uganda. Therefore

according to the results there is a positive significant effect of contractor monitoring on performance of selected road infrastructure projects in Uganda. Therefore, the alternative hypothesis that was earlier stated in chapter one is upheld. The correlation coefficient is a numerical way to quantify the relationship between two variables, i.e the independent and dependent and it is denoted by the symbol R. The correlation coefficient is always between -1 and 1, thus $-1 < R < 1$. The hypothesis is rejected if the earlier hypothesis was alternate and the finally tested hypothesis is null and the vice versa. Example if the calculated value is greater than the P value, we accept the hypothesis.

A regression analysis was further done to determine the strength of the effect of contractor monitoring on performance of selected road infrastructure projects in Uganda. Results are presented in the table 4.11 below.

Table 4. 11: Regression Analysis for contractor monitoring and performance of selected road infrastructure projects in Uganda

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427a	.183	.174	9.69020

a. Predictors: (Constant), Contractor Monitoring

Source primary data (2017)

The coefficient of determination (Adjusted R square) value is 0.174; this implied that contractor monitoring explained only 17.4% of performance of selected road infrastructure projects in Uganda. Therefore contractor monitoring predicts performance of selected road infrastructure projects in Uganda by 17.4%. From all the results the alternate hypothesis earlier stated in chapter four that there is a significant relationship between contractor monitoring and performance of selected road infrastructure projects in Uganda is therefore upheld.

Table 4.12: Regression summary of Contractor monitoring and performance of selected road infrastructure projects in Uganda

Performance	Standardized B	Sig. P
P	0.253	0.000
Adjusted R2 = 0.39 F = 2.593, p = 0.000		

Dependent Variable: performance of selected road infrastructure projects in Uganda

Primary data (2017)

The results in Table 4.12 show that, contractor monitoring explained 39% of the variation in performance of selected road infrastructure projects in Uganda (adjusted R2 = 0.39). The R value is 0.63, which represents the simple correlation and, therefore, indicates a moderate degree of correlation. The R2 value indicates how much of the dependent variable, performance can be explained by the independent variable. Therefore the adjusted square value of .039 implied that

contractor monitoring predicts performance of selected road infrastructure projects in Uganda; in other words performance of selected road infrastructure projects in Uganda is dependent on contractor monitoring by 39%. The regression model was good/ significant ($F = 2.593$, $p = 0.000 < 0.05$). All the independent variables included ($\beta = 0.253$ and contractor monitoring, $p = 0.000$). The magnitudes of the respective betas suggest that contractor monitoring most significantly predicted performance of selected road infrastructure projects in Uganda

In summary, the respondents were asked to give their summary opinions about contractor monitoring. Several responses were given but generally they indicated that the responses on the contractor monitoring were fair. In total 102 respondents provided responses indicating that the contractor monitoring drafted are good but performance of selected road infrastructure projects in Uganda has been faced with significant challenges.

4.13 Objective Three: the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA

The items were structured basing on the objectives of the study. Items were measured on a five-point Likert scale where code 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree and analysed basing 5 items/ questions which are statistically tabulated and presented in the table below with the frequencies and percentages according to the responses collected.

Table 4.13: Summary Statistics on significant moderator effect of the oversight role played by PPDA

Item Responses		Frequency	Percent	Mean	
PPDA has not been effective in ensuring compliance in the procurement for road project procurements	Strongly Disagree	03	2.9%	4.49	0.864
	Disagree	02	2.0%		
	Not sure	01	1.0%		
	Agree	32	31.4%		
	Strongly Agree	64	62.7%		
PPDA has not been effective in its advisory role in procurement for national road projects	Strongly Disagree	05	4.9%	4.29	7.03
	Disagree	01	1.0%		
	Neutral	09	8.8%		
	Agree	27	27.3%		
	Strongly Agree	55	55.6%		
PPDA has not been effective in setting standards in procurement road projects	Strongly Disagree	08	7.8%	3.86	5.08
	Disagree	15	14.7%		
	Neutral	30	29.7%		
	Agree	26	25.7%		
	Strongly Agree	21	20.8%		
PPDA intervention during the procurement processes has not been effective improving performance of road projects	Strongly Disagree	27	26.5%	2.46	1.19
	Disagree	29	28.4%		
	Neutral	23	22.5%		
	Agree	18	17.6%		
	Strongly Agree	05	4.9%		
PPDA has not effectively built capacity of key players on road projects	Strongly Disagree	04	4.0%	3.25	1.07
	Disagree	26	25.7%		
	Neutral	21	20.8%		
	Agree	40	39.6%		
	Strongly Agree	10	9.9%		

Source Primary Data (2017)

N=102

With respect to whether PPDA has not been effective in ensuring compliance in the procurement for road project procurements, cumulatively the larger percentage (94.1%) agreed with 4.9% disagreeing. The mean = 4.49 which corresponded to agreed indicated the majority of the

respondents agreed that PPDA has not been effective in ensuring compliance in the procurement for road project procurements.

Responses to the question as to whether PPDA has not been effective in its advisory role in procurement for national road projects (82.9%) agreed while 8.8% disagreed. The mean = 4.29 close to the median score, three, that indicated that PPDA has not been effective in its advisory role in procurement for national road projects.

A UNRA Official gave more insight that;

Most times PPDA experts and professionals render advice to authorities that are in need of their services for example NSSF, UNRA, URF etc. This is aimed at preventing cases of abuse of procurement procedure in these authorities

Relatedly Procurement Professional noted

PPDA has an advisory role and so there is a team of lawyers playing this role. Noncompliance issues are always realized when making an audit report. For central government departments they are always audited annually. However, some departments in government have ignored PPDA advise

This is evident from the interview findings that revealed that PPDA experts and professionals go to render advice to authorities. The above submission took cognizance of the mixed nature of PPDA being a Regulator of Procurement and Disposal Practices in Uganda and has an oversight role of monitoring and evaluation of the performance of public entities in the implementation of the procurement and disposal function in accordance to the set Laws and Regulations. The Authority (PPDA) conducts this through Performance Monitoring which involves activities like compliance monitoring, procurement audit and investigations and Administrative Reviews.

PPDA also has a duty to come up with various Laws and harmonize the existing ones to ensure applicability, conduct capacity building and give advisory services to the Entities. Whereas the Authority has put in place structures and guidelines for the implementation of the procurement and disposal function, there has been less value addition to the procurement function by the Authority.

According to OAG Report (2014), following abuse of procedure, EnergoProjekt was blacklisted and suspended by the World Bank for two and half years after the “acknowledgment of misconduct in a World Bank-financed roads and development project in Uganda. Already, EnergoProjekt did secure a contract to work on Nakasero Road that was awarded by the KCCA and UNRA honored it.

In relation to that, at times PPDA advises road entities not to sign agreements where bids have not been evaluated on merit, cumulatively the majority percentage (90.3%) of the respondents agreed.

An Audit Assistant noted that;

PPDA has helped to save wastage of tax payers’ money by giving advice to authorities on procurement related matters.

A Procurement Professional PPDA, in agreement with the above said;

“Our advice as PPDA has been instrumental in reducing loss of money through shoddy works caused by awarding tenders to incompetent companies”.

It is evident from the interview findings that the PPDA has left very little to flexibility as far as the procurement methods and procedures are concerned. For example, the PPDA law tends to be restrictive to use of other procurement strategies that would be equally competitive and lead to achievement of value for money. For example, negotiation on price is restricted to only where

direct procurement methods is applied which is the biggest factor. At the same time use of Direct Procurement Method has heavy restrictions rendering it risky to apply. When asked about the stringency of the regulations, the procurement professionals had mixed responses one stated that;

“The minimum periods stated in the Act and Regulations are stringent to some Entities by the nature of their activities. For example, the Investment sector may only need a few days to acquire a multibillion project or offer on the world market. However, the law would tie this to the mandatory minimum periods for bidding and as a result the Entity cannot catch up with other private firms on the market. A case in point is NSSF in the purchase of Shares on the stock market exchange/Equities”.

A Compliance Manager in support noted that;

“The Law tends to be so bureaucratic in its implementation with very minimal flexibility in terms of procedure and applicability. This makes the public procurement processes unappealing to some private providers. This affects competitiveness thus hindering value addition in the supply chain and overall achievement of value for money.”

This indicates that due to bureaucratic tendencies, there have been a lot of delays in the implementation of the procurement and disposal functions ranging from the mandatory timelines in the law for some activities for example minimum bidding periods, display period and so on to the many levels of approvals at various levels in the Entity. This is because the PPDA Act has left very little or no room for creativity within the procurement and disposal function since its assessment and evaluation is majorly based on the PPDA Law. Although some powers were forwarded

As to whether PPDA has not been effective in setting standards in procurement road projects, the respondents' responses indicated that cumulatively, the larger percentage (46.5%) of the respondents agreed and 22.5% disagreed. The mean = 3.86 was above the median score, three, which on the five-point Likert scale used to measure the items indicated that the respondents agreed that PPDA has not been effective in setting standards in procurement road projects.

With respect to whether PPDA intervention during the procurement processes has not been effective improving performance of road projects, cumulatively the larger percentage (22.5%) agreed with 54.9% disagreeing. The mean = 2.46 which corresponded to agreed indicated the majority of the respondents noted that PPDA intervention during the procurement processes has not been effective improving performance of road projects.

Findings from interviews revealed that after conducting administrative reviews at times PPDA does not clearly come out with position on the fate of the procurement process. This causes confusion and a lot of delays as entities ponder on the next action. Majority of the respondents interviewed noted that PPDA needs to come out quite expressly on any contested issue to give appropriate guidance to Entities. They also noted that although the law was well intentioned, it stifles efficiency. For example, the law allows complaints at any time in the procurement process, however, a frivolous in nature. And whenever there is a complaint, the procurement process has to be suspended until investigations are completed. This causes unnecessary delays in service delivery. The weakness here is that PPDA has no powers to recommend a matter to be set aside and procurement continues however much such a decision makes business sense.

As to whether PPDA has not effectively built capacity of key players on road projects, cumulatively the larger percentage (49.5%) agreed with 29.7% disagreed. The mean = 3.25 meant that the respondents the respondents agreed that PPDA has not effectively built capacity

of key players on road projects. However, given that 41% of the respondents disagreed with the above statements, it means that PPDA has to do more advisory work and guidance to entities than what it is doing currently.

A Procurement Professional interviewed during fieldwork gave more insight that;

Most times PPDA experts and professionals render advice to authorities that are in need of their services for example NSSF, UNRA, URF etc. This is aimed at preventing cases of abuse of procurement procedure in these authorities

This is evident from the interview findings that revealed that PPDA experts and professionals go to render advice to authorities. The above submission took cognisance of the mixed nature of PPDA being a Regulator of Procurement and Disposal Practices in Uganda and has an oversight role of monitoring and evaluation of the performance of public entities in the implementation of the procurement and disposal function in accordance to the set Laws and Regulations. The Authority (PPDA) conducts this through Performance Monitoring which involves activities like compliance monitoring, procurement audit and investigations and Administrative Reviews. PPDA also has a duty to come up with various Laws and harmonize the existing ones to ensure applicability, conduct capacity building and give advisory services to the Entities. Whereas the Authority has put in place structures and guidelines for the implementation of the procurement and disposal function, there has been less value addition to the procurement function by the Authority.

According to OAG Report (2014), following abuse of procedure, EnergoProjekt was blacklisted and suspended by the World Bank for two and half years after the “acknowledgment of misconduct in a World Bank-financed roads and development project in Uganda. Already,

EnergoProjekt did secure a contract to work on Nakasero Road that was awarded by the KCCA and UNRA honored it.

In relation to that, at times PPDA advises road entities not to sign agreements where bids have not been evaluated on merit, cumulatively the majority percentage (90.3%) of the respondents agreed.

A Procurement Professional noted that;

PPDA has helped to save wastage of tax payers' money by giving advice to authorities on procurement related matters.

A Procurement Professional from PPDA, in agreement with the above said;

“Our advice as PPDA has been instrumental in reducing loss of money through shoddy works caused by awarding tenders to incompetent companies”.

When asked about the existing law, a respondent acknowledged that “there are a number of redundant provisions in the procurement processes, such as approval of bidding documents by entities’ contract committees. Approval of bidding documents whose formats are standardized delays in implementation of projects. The respondents observed that there is need for PPDA to propose amendments of some of the requirements in the procurement Act to enable speedy delivery of services.

It was further observed that as part of the oversight role, PPDA is supposed to advise government on procurement systems and practices and also propose harmonization. Entities and Procurement practitioners are complaining about lack of flexibility in PPDA Act and Regulations to allow public procurement decisions to be done in a business sense. PPDA ought to come out strongly to proposing amendments in the law and make proposals that enhance efficiency in

procurement process. PPDA has put more focus on enforcing compliance with the current law without considering the dynamics in services delivery. It was further observed that the authority's performance is below expectation when it comes to management of complaints in the procurement processes i.e Administrative Reviews and Investigations. The Authority has not helped the entities to Promote economic efficiency through this function. It was observed that a number of Administrative were on failure by the entities to properly interpret what is a minor omissions or material deviations in the bids during evaluation.

A Contractor noted that;

There is need for PPDA to come out strongly and guide entities on application of provisions on "non-material omissions" and "non-material deviations" which are inevitable in practice. She further observed that failure to understand the above provisions has led entities rejecting firms having substantial capacity to deliver projects on minor omission and deviations. This leads to complaints to PPDA causing delays in service delivery.

On a positive note the Authority has tried to reduce costs in the procurement cycle by introducing the use of abridged versions of the advert, mandatory conducting of market assessment to ensure that the Entities are not exploited by greedy providers. The Authority has introduced provision in Act through preference and reservations schemes aimed at the socio-economic development of the local communities.

On enforcing ethical conduct, the Authority has suspended of over 45 companies for lack of transparency and accountability. In this way the Authority has contributed to the struggle to fight widespread fraud and corruption in the procurement sector. However this has also been let down by the less powers the Authority has in terms of prosecuting the fraudulent and corrupt people directly.

Table 4.14: Frequencies, Percentages and Means on the performance of selected road infrastructure projects at UNRA

Item Responses		Frequency	Percent	Mean	Std Deviation
Most road projects are never implemented within the contracted costs	Strongly Disagree	03	2.9%	3.59	0.925
	Disagree	09	8.8%		
	Not sure	27	26.5%		
	Agree	50	49%		
	Strongly Agree	13	12.7%		
Most road projects are never completed in project scheduled time	Strongly Disagree	03	2.9%	3.65	0.903
	Disagree	07	6.9%		
	Neutral	25	24.5		
	Agree	52	51%		
	Strongly Agree	13	12.7%		
Most national roads have no safety provision for pedestrians	Strongly Disagree	06	5.9%	3.38	2.01
	Disagree	14	13.7%		
	Neutral	42	41.2%		
	Agree	31	30.4%		
	Strongly Agree	08	7.8%		
There are inadequate road safety signage on national roads	Strongly Disagree	03	3.0%	3.53	0.922
	Disagree	07	6.9%		
	Neutral	38	37.6%		
	Agree	39	38.6%		
	Strongly Agree	14	13.9%		
There are many accidents on national roads due to design faults	Strongly Disagree	03	2.9%	3.67	0.976
	Disagree	07	6.9%		
	Neutral	25	24.5%		
	Agree	52	51.0%		
	Strongly Agree	13	12.7%		
National roads are too narrow to ease	Strongly	04	3.9%	3.67	0.976

traffic mobility	Disagree				
	Disagree	08	7.8%		
	Neutral	22	21.6%		
	Agree	51	50.0%		
	Strongly Agree	17	16.7%		
Most roads have poor drainage	Strongly Disagree	08	7.9%	3.13	1.14
	Disagree	24	23.8%		
	Neutral	27	26.7%		
	Agree	30	29.7%		
	Strongly Agree	12	11.9%		

Source: Primary Data 2017

N=102

With respect to whether most road projects are never implemented within the contracted costs (61.7%) agreed with 11.7% disagreeing. The mean = 3.59 which corresponded to agreed indicated the majority of the respondents agreed that most road projects are never implemented within the contracted costs .

Despite the availability of funds most of the roads have not been completed. The construction of Southern Bypass, Jinja Expressway and completion of the Entebbe Expressway roads intended to be hallmarks in a modern Uganda have been slow with some not started yet. The total cost of this road is expected to be \$1,100 million. Once completed, however, the road will be one of the most treasured infrastructural assets for Uganda for a long time to come.

According to the Annual Road Sector Monitoring report (204:37), the procurement process for the new projects took longer than was anticipated and as a result, the annual targets were not achieved. The contracts that delayed according to report are;

No	Road Project
1	Musita - Lumino - Busia/ Majanji road
2	Olwiyo - Gulu, Gulu – Acholibur
3	Acholibur - Kigtum - Musingo road
4	Mpigi - Maddu - Sembabule -Villa Maria road
5	Ntungamo – Mirama hills.

Source: UNRA Report (2016)

Other projects delayed procurement were: Mubende - Kakumiro - Kagadi road, Kigumba - Bulima - Kabwoya - Kyenjojo road. To date the contractor selection for most of these projects is incomplete. A good progress was made in the implementation of the bridges programme much as they were delays in procurement. Similarly, according to Road Industrial Council independent report (2014:1) indicates that of the 256 road contracts awarded by UNRA between 2010 and 2013, only 149 (58%) were completed satisfactorily (within time and on budget). The report noted that some of these contracts were awarded to smaller contractors with insufficient experience.

A Contractor noted that;

Similar issues related to evaluation and poor designs were noted in the contract for Reconstruction of Mbarara-Ntungamo-Kabale-Katuna Section of the Northern Corridor Route (Lots 2 and 3) where the carriage was expanded to 7m. However, the bridges along this route have remained narrow causing outstanding black spots. This was particularly noted at Bridges No. 5, 7 and 9. Delays in progress of works arising from several factors such as unexpected site conditions, abnormal weather conditions were noted in the following four (3) roads: reconstruction of the Mbarara-Ntungamo-Kabale-Katuna Road between 36km and 95km (Lot 2) where the expected completion date is June 2015 from the contract completion date of 2nd August 2014; reconstruction of the Mbarara-Ntungamo-Kabale-Katuna Road between 95km and

*160km (Lot 3) where the expected completion date is 6th May 2016 from 3rd August 2014;
staged Reconstruction of Tororo –Mbale road (49km);*

Responses to the question as to whether most road projects are never completed in project scheduled time (63.7%) agreed while 9.8% disagreed. The mean = 3.65 close to the median score, three, that indicated that most road projects are never completed in project scheduled time

Table 4. 15: Sample of delayed fully funded national Road Projects

No	Name of the Road	Km	Status
1	Kigumba-Masindi-Hoima-Bulima-Kabwoya	135	Kigumba–Bulima: delayed Contractor Selection Bulima-Kabwoya: Contract or on site
2	Masaka-Bukakata	41	At Contractor Selection
3	Design and Build of Mubende-Kakumiro-Kibaale-Kagadi	107	Contract awarded yet to commence works
4	Kyenjojo-Kabwoya	105	Works on going
5	Rukungiri-Kihihi-Ishasha-Kambuga/Kihihi-Kanungu-Kambuga)	112	Projects re-tendered
6	Tirinyi-Pallisa-Kumi/Kamonkoli	111	At contractor selection
7	Muyembe – Nakapiripirit	94	Procurement of the contractor yet to start
8	Mbale-Bubulo-Lwakhakha	55	Procurement for contractor yet to start
9	Zirobwe-Wobulenzi	25	Procurement yet to start
10	Kapchorwa-Suam	73	Procurement yet to start

Source: www.unra.go.ug

A number of delays have been registered on most road projects by Uganda National Roads Authority for example the following roads have registered delays by over a period of 6months Kigumba-Masindi-Hoima-Bulima-Kabwoya, Masaka-Bukakata, Mubende-Kakumiro-Kibaale-Kagadi, Kyenjojo-Kabwoya, Rukungiri-Kihihi-Ishasha-Kambuga/Kihihi-Kanungu-Kambuga), Tirinyi-Pallisa-Kumi/Kamonkoli, Muyembe – Nakapiripirit, Mbale-Bubulo-Lwakhakha Zirobwe-Wobulenzi and Kapchorwa-Suam

As to whether most national roads have no safety provision for pedestrians, the respondents' responses indicated that cumulatively, the larger percentage (38.2%) of the respondents agreed and 19.6% disagreed. The mean = 3.38 was above the median score, three, which on the five-point Likert scale used to measure the items indicated that most national roads have no safety provision for pedestrians.

Responses to the question as to whether there is inadequate road safety signage on national roads (52.5%) agreed while 9.9% disagreed. The mean = 3.53 close to the median score, three, that indicated that There are inadequate road safety signage on national roads.

With respect to whether there are many accidents on national roads due to design faults, cumulatively the larger percentage (9.8%) disagreed with 63.7% agreeing. The mean = 3.67 which corresponded to agreed indicated the majority of the respondents agreed that There are many accidents on national roads due to design faults.

As to whether national roads are too narrow to ease traffic mobility, cumulatively the larger percentage (11.8%) disagreed with 66.7% agreed. The mean = 3.67 meant that the respondents the respondents agreed that national roads are too narrow to ease traffic mobility.

With respect to whether most roads have poor drainage (41.6%) agreed with 31.7% disagreeing. The mean = 3.13 which corresponded to agreed indicated the majority of the respondents agreed that Most roads have poor drainage.

Interview findings revealed that even where there was delayed completion of works by the contractor for over 10 weeks there was not employer's intention to charge penalties for the delay. This was because the employer was also to blame for the delays. This was noted on the Kawempe – Kafu Road (166Km) by M/s Energoprojekt Niskogradnja where some sections are still incomplete to date yet UNRA awarded the same company another section of the road(rom Kafu River-Kiryandongo).

A Procurement Professional from PPDA noted that;

UNRA disregarded a recommendation in the OAG FY 2008/09 audit report to defer application of the overlay since underlying layers were poorly done.

The above notwithstanding, UNRA spent more than UGX 140,556,490,385 on the overlay and the works are still incomplete (OAG Report, 2012). Similarly in the reconstruction of the Mbarara – Ntungamo – Kabale – Katuna Section of the Northern Corridor route, there was delayed completion of works due to inadequate equipment, delayed compensation and lack of final designs. Upgrading of Gulu-Atiak Road to Paved Bitumen Standard (74Km) by M/s China Henan International Cooperation Group Co. Ltd (CHICO) at UGX 89,667,759,288 also delayed etc. To summarize the push and pull nature of the institution concerned with reference to delays, Muhwezi (2011) wrote that the IGG Report (2013) cited delays on road projects and the cause of these delays.

On the other hand, construction of the 69 km Kigumba-Bulima and 66km Bulima-Kabwoya roads in the oil rich Bunyoro sub-region face delay following the award of the contract to Chinese firms in disregard of procurement rules. The road works that are part of the oil infrastructure dubbed “Oil Roads” are to cost the taxpayer at least \$130m (about Shs338b) as a loan from the African Development Bank (AfDB). Uganda National Roads Authority’s (UNRA) procurement team recommended that the contract for Kigumba to Bulima road be awarded to M/S Chongqing International Construction Company (CICO) and M/s Sinohydro contested the decision leading to cancelation of the award.

The PPDA report blamed UNRA for being sloppy in implementing its own evaluation criteria, an action that suggests a move to favour the two firms against other bidders. Documents show that UNRA declared the Fort Portal–Bundibugyo-Lamia road as completed by March 2013 yet the firm had only handed over 34.7kms to UNRA out of the 103.2kms. UNRA is also held culpable for issuing to CICO certificates of completion for Acholibur-Musingo and Vurra-Arua-Koboko-Oraba roads when the works were still ongoing.

A Project Engineer noted that;

There are delays in implementation of Preliminary activities. It was noted that delays arising from; compensation of land owners for site camp construction led to delays in contract commencement. This was noted in the contract for Reconstruction of Mbarara-Ntungamo-Kabale-Katuna Section of the Northern Corridor Route (Lot 2) where construction of the site camp at Rubaare and construction of laboratories was completed in February 2012. Delays in commencement by the contractors led to delays in contract completion. A delay was also noted in the Upgrading of Vura – Koboko - Oraba road where there was a delay in advance payment.

The views held by above respondent seem to be in consonant with other reports such as the OAG Report(2013). The OAG report noted that one of the causes of delays is attributed to faults in the bidding Process and failure by the government to pay compensation prior to project commencement.

In relation to the above a Contractor noted that;

Delays in implementation of Preliminary activities have been common on most road projects in Uganda. Our team visited one project in September 2013 where it was noted in the contract for Reconstruction of Mbarara-Ntungamo-Kabale-Katuna Section of the Northern Corridor Route (Lot 2) that the compensation of land owners and construction of the site camp delayed commencement of the contract to 3rd August 2011 and yet the contract was signed on 29th December 2010. This was also noted in the Upgrading of Vura – Koboko - Oraba where there was a delay in advance payment which delayed commencement of works from 2nd August 2011 when the contract was signed and the commencement date was 6th January 2012.

Poor contract management has also caused delays, according to the IGG Report(2013).The report cited contract for repair of roads damaged by floods in three districts namely Soroti, Katakwi and Amuria districts comprising of five roads totaling to 129 kilometers

4. 14 Hypothesis Testing Three:

Hypothesis Three Stated that there is a significant moderator effect of the oversight role played by PPDA on contractor selection, contractor monitoring and performance of selected road infrastructure projects in Uganda. The hypothesis was tested using the regression analysis and the results of the hypothesis are given below.

Table 4.16: Moderator Effects of Oversight Role of PPDA in Predicting the relationship between Contractor selection, Contractor Monitoring and Road Infrastructure Performance and Dummy Coded (N=120)

Step	Variable	R	R2	R2 Change	B	SBe	Beta
1	Contractor selection	.697	.485	0.401	2.089	.142	.471*
2	Contractor monitoring	.648	.419	.378	.720	.599	.027
3	Oversight role of PPDA X Contractor monitoring and selection	.512	.262	.214	.412*	.201	.066
4	Constant				43.401	3.450	

*p<.05; **p<.01; ***p<.001; R value 0.512, Cumulative R squared = .262; Adjusted R squared = .214.

Oversight role is centered to a mean of zero.

The results in Table 19 show that moderator effect of oversight role of parliament in predicting the relationship between contractor selection and monitoring and road infrastructure project performance (adjusted R2 = .214). The R value is 0.512, which represents the simple correlation and, therefore, indicates a positive significant degree of correlation. The R2 value indicates how

much of the moderator effect of oversight role of PPDA predicts the relationship between. Therefore the adjusted r square value of .214 implied that the moderator effect of oversight role of PPDA in predicting the relationship between contractor selection and monitoring and road infrastructure project performance is positive.

This Chapter focused on presenting the findings, interpretation and analysis, the next chapter focuses on the summary of findings, discussion of the findings, conclusions, recommendations and areas for further research. The researcher now turns to chapter five to present the summary of findings, discussion of the findings, conclusions and recommendations.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of findings, discussion, conclusions, recommendations and areas for further study based on the study objectives.

5.2. Summary of Major Findings

The summary of the major findings is presented based on the study objectives as laid in chapter one of this report.

5.2.1: Contractor Selection and the performance of selected road infrastructure projects in Uganda

The Pearson Correlation results indicated that the coefficient was .476**. This implied that contractor selection influences the performance of selected road infrastructure projects in Uganda. Therefore according to the results there is a positive relationship between contractor selection and the performance of selected road infrastructure projects in Uganda. A regression analysis was further done to determine the strength of the relationship between contractor selection and the performance of selected road infrastructure projects in Uganda. The Adjusted R square value was 0.217; this implied that contractor selection explained only 21.7% of the performance of selected road infrastructure projects in Uganda. Therefore contractor selection predicts the performance of selected road infrastructure projects in Uganda by 21.7 %.

5.2.2: Contractor monitoring and the performance of selected road infrastructure projects in Uganda

The Pearson Correlation results indicated that the coefficient was 0.427**. This implied that contractor monitoring influences the performance of selected road infrastructure projects in Uganda. Therefore according to the results there is a positive significant relationship between contractor monitoring and the performance of selected road infrastructure projects in Uganda. A regression analysis was further done to determine the strength of the relationship between contractor monitoring and the performance of selected road infrastructure projects in Uganda. The Adjusted R square value was 0.174; this implied that contractor monitoring explained only 17.4% of the performance of selected road infrastructure projects in Uganda. Therefore contractor monitoring predicts the performance of selected road infrastructure projects in Uganda by 17.4%.

5.2.3: the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA

The Pearson Correlation results indicated that the correlation coefficient was 0.033 and its significance level 0.761. This implied that there is a positive moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA. A regression analysis was further done to determine the strength of the moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA.

The Adjusted R square value is -0.10; there is a positive moderating effect of the oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of road infrastructure projects at UNRA.

5.3. Discussion of Findings

The findings are discussed on the basis of the study objectives as laid down in chapter one

5.3.1: the effect of contractor selection on the performance of selected road infrastructure projects

Findings revealed that there is a positive significant relationship between contractor selection and performance of road projects. Contractor selection is based on procedure, for example; the firms that are eventually awarded contracts by the contracts committee should be in regard with the evaluation committee recommendations. Section 29 (C) of the PPDA Act, 2003 gives the powers to award contracts in accordance with applicable procurement or disposal procedures as the case may be to the Contracts Committee. Selecting a contractor is one of major decisions which influences the progress and success of any construction project (Banaitienė and Banaitis, 2006: 277). Cheng and Li(2004) posits that existing literature on contractor selection mainly deals with how to identify and assess the criteria to make the most appropriate decisions. A study conducted within the United Kingdom (U.K) construction industry indicated that some of the contractor selection decisions were based on cost (Holt, 1995; Holt, 1998).

Poor contractor selection has also caused delays, according to the IGG Report (2013), which discovered that the documentation of the contract management process was very poor, substantial information was missing that would enable the audit team to conduct a meaningful audit trail. PAC Report examined by OAG (2013) notes that disputes had emerged and the

delayed compensations caused works to be equally delayed with additional costs being incurred on the projects in form of prolongation costs, costs on Variation of Prices (VoP) and maintenance of Consultants on site. UNRA was not exerting enough effort in ensuring the compensations disputes that exist are resolved in time. In Africa, empirical studies indicate that contractor selection is one of the main decisions made by the clients. In order to ensure that the project is completed successfully, the client must select the most appropriate contractor (Ocharo, 2013).

According to Ocharo (2013), contractor selection process involves the use of different procurement and evaluation methods. Manthosi and Thawala (2012) and Ganderton (2012) identify the commonly applied procedures for contractor selection in construction projects in Africa as open competitive, selective, negotiation, and design and build tendering approaches. The open tendering procedure allows practically any contractor to submit a tender for the work. This procedure involves either the client or consultant (on behalf of the client) placing a public advertisement giving a brief description of the work.

Findings revealed that weaknesses still exist in selecting of works contracts by UNRA. It was observed that there is frequent change of key consultant staff on some projects which has impact on the whole process. For example; Gulu-Atiak and Entebbe Expressway, on some periodic maintenance contracts; Muhanga – Kisizi – Kebisoni and Rukungiri – Mitaano – Kanungu. This affects project outputs both in terms of quality and time. Irregular use of PPDA guidance on Jinja- Kamuli road to introduce Price adjustment clause on the contract for Kafu- Kawempe road also showed weakness in contract management. The project managers/supervisors there lacked adequate skills for effective management of contracts. Decisions of bid/no bid are a crucial issue

in bid evaluation during selection. This is the process of deciding whether an organization should go for bidding or not to bid. It is quite obvious that each and every tender floated may not fit the organizations' competency. Hence, before starting the actual work, it is necessary to know whether the tender is to be responded or not.

Contract selection has become a priority for public entities like UNRA. In a developing country like Uganda, having an effective contractor selection system is still a major challenge to many public entities (Oluka, 2013). Contractor selection is one area that needs careful attention from all stakeholders in public entities because it has a huge influence on service delivery, and this is one way of accounting to the tax payers(Muhwezi, *ibid*). Muhwezi (2013) contends that Public Procurement and Disposal Authority (PPDA) must play a central role in providing training, technical guidance and ensuring compliance to all set rules. Sabiti, Basheka and Muhumuza (2011) in their study on developing public procurement performance measurement systems in developing countries the Uganda experience, note that proper contractor selection influences procurement performance. Some contractors selected lack the appropriate experience and this is clearly seen from the works accomplished. Mbale – Soroti road has been a particular nightmare for motorists considering that by the end of November 2012, the contractor Dott Services was yet to deliver a complete stretch of the road but given the inexperience of contractor, shoddy work was done.

5.3.2: Contractor Monitoring and Performance

Findings revealed that there is a positive significant relationship between contractor monitoring and performance. This indicated that staff designated to monitor contractors lack adequate supervisory skills. Sometimes work is poorly supervised and this follows the fact that the general

public has several times complained about the poor state of newly constructed roads. Some roads get in a bad state a few months after construction.

For example, Entebbe road, Nasser road, Oluyo-Packwach-Arua, Hima-Kasese, Kasese-Katunguru, Busega –Masak, Jinja-Kampala etc. The general public has complained about poor construction of these two roads a few weeks after completion following the increasing number of potholes that develop a few months later. Hinton (2003) in his study on the “Best practices in government: Components of an effective contract monitoring system”, notes that until recently the different portfolio managers have been responsible for determining the cost savings and other effects of procurement on their own.

The ability to realize procurement goals has been a fiasco in most road construction projects due to poor contractor monitoring in spite of UNRA contracting international road supervision Consultants. There are gross delays of roads construction completion and shoddy work in Uganda. This has, therefore, created contract monitoring gaps in terms of acting in stake holder interests, client/employer communication, negotiation, contract management, dispute resolution and approvals of changes and authorization. Rendon (2010) in his study on the ‘critical success factors in government contract management’ outlines qualified workforce, clear processes, relationships, resources, leadership and policies as critical success factors for contract management. All these have a direct impact on an organisation’s contract management process as well as resulting outcomes (Rendon, *ibid*).

Arrows (2010) in his book on contract monitoring noted that contract monitoring is essential for achieving the most profitable benefits from supplier relationships and to optimize total costs of the procurement function, however when a party is aggrieved he/she can seek administrative

review. There are clear dispute resolution procedures for road projects, according to the PDDA Report on the Application for Administrative Review. In support, Donovan (2013) asserts that in a theoretical underpinning of the challenges of contractor monitoring in Canada, the important issue in monitoring a supplier's performance is deciding who is best placed to actually monitor that performance. The supplier's performance must be assessed objectively against criteria that are pre-determined, clearly understood and agreed upon by both parties in the conditions of the contract so that the party does not seek administrative review (Donovan, 2013).

Findings revealed that the lowest bid acquisition in UNRA has encouraged underperformance by the contractors who are in competition with other low-bid contractors. Under the low-bid acquisition methods used by UNRA, sometimes, contractors underprice a bid in order to win a contract. To recover their lost profits, contractors then use substandard materials, poor workmanship, and take great risks to the health and safety of their laborers. Lowest bid contracting used by UNRA on roads has paved way to contracting poor contractors who perform shoddy work. Agere (2009) in his study on the effectiveness of contract management in Austria noted that contract monitoring requires the systematic management of contract creation, execution, compliance and analysis to maximize performance and minimize risk (Agere, 2009). With the increase in the complexity of doing business in public entities, coupled with the increase in transaction volumes and value in an ever tightening regulatory framework, has resulted in businesses taking note of the importance of proper monitoring of contractors (Bagaka & Kobia, 2010).

It was observed that at the procurement stage, some companies have also often been quoting lower bids, however, after winning the contracts they seek for variations causing the costs Overrun. A respondent from UNRA pointed out that UNRA only pays for works approved by the supervising consultant who he says is responsible for the quality and making sure the project is delivered on time. A company can be suspended for delayed works or poor works. Contractor monitoring is the active control of the contract between the procuring and disposing entity and the contractor, in order to ensure delivery of a cost effective and reliable service at an agreed standard and price. It is the final stage in the bidding process and marks the beginning of a contractual relationship between the procuring and disposing entity and contractor in the process of managing and administrating the contract implementation (Muhwezi and Ahimbishibwe, 2015).

Contractor monitoring cycle is the process of systematically and efficiently managing contract creation, execution and analysis for maximising operational and financial performance and minimizing risk (Kamya, 2011). Mbalangu (2013) in his study on compliance monitoring and procurement performance carried out in Uganda, notes that supplier/contractor monitoring has slowly become an important component for effective supplier relationship management that is directly linked to securing the supply of key commodities needed for sustaining business.

Alinaitwe, Apolot and Tindiwensi (2013) investigated the causes of construction project delays and cost overruns in Uganda's public sector with an intention of ranking them according to their frequency, severity and importance. A total of 30 projects at Civil Aviation Authority were reviewed. Five most important causes of delays and cost overruns were found to be changes in the work scope, delayed payments to contractors, poor monitoring and control and high inflation and interest rates. Ahimbisibwe, Muhwezi & Eyaa (2012), examined the relationship between

supplier opportunism, contract management and service delivery in outsourced contracts in Uganda. The study was conducted in the 116 Procuring and Disposing Entities in Uganda and the findings reveal that supplier opportunism and contract management are significant predictors of service delivery. This study, however, does not address the impact of supplier determination process on contract performance.

It was observed that the coordination of contracts involves many activities to ensure the fulfillment of a contract. This covers those activities or events that can alter or disrupt the performance of a contract e.g, default of a contractor, disputes and contract amendments. Whenever the satisfactory fulfillment of a contract is jeopardized, UNRA sometimes takes the necessary steps to serve and protect the interests of the institution in meeting the terms of the contract, and then to protect (where appropriate) the interests of other parties involved in the contract. This is in line with Ralph (1993).

5.3.3 The moderator effect of oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of selected road infrastructure projects

Findings revealed that there is a positive moderator effect of oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of selected road infrastructure projects.

The oversight agency (PPDA) has been critical in ensuring PDEs awards projects at right costs. This is also confirmed by Rotich (2011). Projects sometimes are not awarded at the right cost which causes irregularities with the procurement process. Equally, Bruijn (2007) points out that one of the major setbacks in public procurement is poor planning and management of the procurement process including needs that are not well identified and estimated, unrealistic

budgets and inadequacy of the skills of staff responsible for procurement. Muhwezi(2013) in his findings concludes that planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today.

Similarly, Adero and Aligula (2012) in their study on challenges facing transport infrastructure in the East African Community, note that the cost of doing business in the East African Community is high due to the poor state of regional transport infrastructure. In their study they used comparative indicators to assess the performance of transport infrastructure in the EAC, middle-level economies and other major players in Africa. They cited the report by World Bank, (2010) where it was observed that as per the percentage of roads paved in EAC countries is still at par with low-income countries (about 10%), with only Uganda and Rwanda scoring higher (above 15%) as per the World Development Indicators. When it comes to bid evaluation, the aggrieved parties always appeal to PPDA for an administrative action. This study however did not explicitly bring out the performance of road infrastructure projects. The researcher noted that road infrastructure project performance should be viewed in relation to contractor selection and contractor monitoring which was the central focus of this study.

5.4 Conclusions

This study was designed to answer three research questions and this section will summarize the key findings of the study in relation to each research objective in order to formulate the recommendations of the study. Study conclusions were drawn basing on the different research objectives as shown below;

5.4.1 The effect of contractor selection on the performance of selected road infrastructure projects at UNRA

Contractor selection plays a key support role in the operations of UNRA. The process must be well thought through with action plans which are not static. With proper contractor selection, UNRA is assured of efficient and effective service delivery. There are well defined processes and a clear contract management plan, with a focus on outputs and a ‘whole life’ approach to performance. However, delays in accomplishing tasks by road contractors are bringing down the process. Regular assessment and evaluation of tasks should take place in order to ensure that the cost of contract management activities is justified and proportionate to the benefits obtained.

5.4.2: the effect of contractor monitoring on the performance of selected road infrastructure projects at UNRA

From the foregoing findings however, it has been clear that findings revealed that there is a positive significant relationship between contractor monitoring and performance. Sometimes work is poorly supervised and this follows the fact that the general public has several times complained about the poor state of newly constructed roads that get in a bad state a few months after construction for example, Entebbe road, and Nasser road. The general public has complained about poor construction of these two roads a few weeks after construction following the increasing number of potholes that developed a few months later. The ability to realize procurement goals has been a fiasco in most road construction projects due to poor contractor monitoring. Despite UNRA contracting M/s Dott services, a road construction company to handle road construction, there are gross delays in finishing and shoddy work in Uganda. This has, therefore, created contract monitoring gaps in terms of, acquisition of submission and presentation of audit reports, evaluation and publishing reports.

5.4.3: The moderator effect of oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of selected road infrastructure projects at UNRA

This study established that oversight role of PPDA positively affects performance to a large extent. UNRA mainly relies on professional experts from PPDA. PPDA has given advice to road agencies without putting any strings on them. It is always up to the agency to buy the advice or not. Furthermore, findings revealed that PPDA allows PDEs act independently in awarding of contracts. This is evident in UNRA where contracts have been awarded some times in disregard of PPDA expertise advice.

5.5 Recommendations

The study recommends the following:

5.5.1 The effect of contractor selection on the performance of selected road infrastructure projects

Best value contracting methodology should be introduced in contractor selection for public infrastructure projects. This is a method of awarding construction contracts in which bidders compete on the basis of technical and managerial merit, past safety and performance records, qualification of craftsmen, technical innovation, financial health, or other factors, in addition to price. The bid evaluation process should be purely executed on merit if it is to yield fruits. In order to create efficiency and value for money in infrastructure projects, the current contractor selection procedures should be reviewed to allow greater choice and flexibility.

5.5.2 The effect of contractor monitoring on the performance of selected road infrastructure projects

Management of the procurement process should be administered by qualified, competent and experienced procurement professionals. This will not only help maintain good procurement standards but also to achieve high levels of efficiency and effectiveness. To avoid delays and cost overruns in services delivery, contractor payment timelines ought to be respected. Payment processes should be well defined and efficient; appropriate checks and authorization processes should be put in place for paying invoices.

For the success of the contracts under execution, UNRA should ensure that proper mechanisms for project monitoring and evaluation are put in place with the input of procurement personnel and the user department with progress reports thereon escalated for necessary action. Contractor should be appraised during the course of the works and the contractor should also be allowed to appraise the contract management staff during the project. Accordingly, the contractors should be made aware of how the Entity rates their performance and, as a matter of best practice; departments should ask the contractor if there are areas where the department could have improved its own performance. Contracting authorities should manage and administer their contracts in a manner that ensures that they are successfully executed in accordance with the agreed terms of time, cost and performance. The contract managers should monitor the supplier's compliance with contractual 'non-performance' issue.

5.5.3: The moderator effect of oversight role played by PPDA on the relationship between contractor selection, contractor monitoring and performance of selected road infrastructure projects

PPDA should issue guidelines to entities emphasis detailing how to ensure professionalism, commitment accountability within the public agencies dealing with road projects at the same time as raising strategic awareness of procurement and contract management among UNRA Officers and Staff. A law should be introduced prohibiting raising any complaints on the procurement process until the publication of the best evaluated bidder notice in order to reduce delays. And the levels of complaints should be reduced to two; that is at PPDA and Appeals Tribunal levels to eliminate delays. There is need to review the complaints mechanism and give the PPDA powers to immediately dismiss frivolous complaints in order to eliminate delays in the procurement process. Government should increase funding to PPDA to enable the Authority to be able to recruit and retain professionals in specialized field such as engineering, pharmaceuticals, information and communication technology, electricity, oil technology etc in order to provide timely risk based reviews.

5.5.4 Performance of Road Infrastructure in Uganda

In order to further improve performance of road infrastructure in Uganda, Government should establish an independent Construction Unit with a mandate of maintaining national road infrastructure in Uganda. The Unit should also be charged with a responsibility of addressing any road aspects such as road design defects that may be affecting efficient performance of roads. The said Construction Unit should be staffed with highly trained professionals with ability capable competing for road projects in Uganda and beyond. In the same vein, Government should also establish an Urban and Local Government Roads Management Authority mandated

to construct and maintain the urban and local areas in order to create infrastructure development harmony and improve accessibility.

5.6 Limitation of the Study

The limitation in the study was related to omission of certain key components in variables on contractor selection and contractor monitoring. For example, competence of procurement professionals, this would have provided useful information to understanding the study subject. Another limitation in the study was common method bias; the researcher used one single questionnaire to measure all constructs. The use of findings from the questionnaire which was close ended also could have missed important information which could have been obtained through other qualitative methodologies. These recognised limitations inspired researchers to define the future research agenda.

5.7 Contribution of the Study to new Knowledge

Well defined processes and clear contract management plan are a proper solution to delays in road construction. With proper monitoring of contractor selection public agencies handling road construction are assured of efficient and effective service delivery. Proper record keeping and documentation of the contract management process is very vital in helping management in the audit trail. Professional advice from procurement professionals and the regulatory authority (PPDA) is very critical especially if emphasis is put on improved professionalism, accountability and performance for procurement within the public institutions at the same time as raising strategic awareness of procurement and contract management. Defensible procurement activities safeguard the reputation of the institution most especially when contract performance is monitored on a day-to-day basis for operational needs and senior procurement review. In

bridging the gap, it is necessary for the contract manager take action where necessary to avoid the organization being 'locked in' to onerous commercial terms with regard to contractor selection and monitoring. It is necessary to introduce best value contracting by awarding construction contracts in which bidders compete on the basis of technical and managerial merit, past safety and performance records, qualification of craftsmen, technical innovation, financial health, or other factors, in addition to price. A number of gaps were also identified as per the literature reviewed which this research bridged. For example most of the studies on the subject in the literature were based on developed countries with a well-developed procurement management mechanism yet the current study is centred on Uganda whose procurement sector is yet to take off. Most studies were qualitative and do not guide us on the relationship between the study variables.

5.6 Areas for further Research

This study looked at two independent variables (contractor selection and contractor monitoring) which according to the findings are likely to account for 87.5% of the variations in performance of road infrastructure projects in Uganda. This means that there are other factors outside these two.

The researcher recommends further research to investigate the other factors that affect procurement performance. Equally, further research should be carried out in other PDEs to ascertain whether these findings are universal and research on procurement performance measurement should be carried out as this was not the objective of this study.

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APPENDICES:

APPENDIX I: QUESTIONNAIRE FOR PROCUREMENT PROFESSIONALS

**PRIVATE CONSULTING ENGINEERS (UACE) AND
PROJECT ENGINEERS AT UNRA**

My name is Nicholas Bankunda Kajinya a student of Masters in Business Administration of Uganda Management Institute. In partial fulfillment of the requirements for the degree, I am required to conduct a research in an area of my interest. My interest in this study is to evaluate the relationship between contractor management and the performance of road infrastructure projects in Uganda. You have been sampled to participate in this study and the information you give will be used strictly for academic purposes and will never be used against you or your office. The information got from you will be kept confidential. You are also requested not to write your name on this questionnaire. Fill out the questionnaire and return to me.

SECTION A BIO-DATA

Please tick the appropriate option

Age	20-29	30-39	40-49	Above 50	
Sex	Male	Female			
Marital status	Married	Single	Widowed	Divorced	
Level of Education	Masters	Bachelors	Diploma	Certificate	Others Specify

SECTION B

CONTRACTOR SELECTION:

(For National Road Projects under Uganda National Roads Authority –UNRA)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

CONTRACTOR SELECTION

Procurement Procedures and Evaluation criteria						
CS1	The procurement procedures do not provide for flexibility in during selection	1	2	3	4	5
CS2	The current bid evaluation method is not appropriate for complex road infrastructure projects	1	2	3	4	5
CS3	The procurement process is too long and time consuming.	1	2	3	4	5
CS4	The procurement procedures give avenues for frivolous complaints during selection.	1	2	3	4	5
CS5	The current bid evaluation methodologies eliminate competent contractors on minor eligibility requirements	1	2	3	4	5
CS6	Some of the contractors selected lack competent personnel	1	2	3	4	5
CS7	Some of the contractor selected lack appropriate experience in similar works	1	2	3	4	5
CS8	Ownership of equipment by the contractor is not critically assessed during selection	1	2	3	4	5
CS9	Due diligence on the contractor's financial capability is not done prior to selection	1	2	3	4	5
CS10	ISO certification as a sign of commitment to international standard is not considered critical in selection	1	2	3	4	5
CS11	Proof of the contractor's consistency in delivery on previous projects is never demanded during selection	1	2	3	4	5
CS12	Contractor's level of commitment on other projects is not considered as critical during selection	1	2	3	4	5
CS13	The estimated project cost is not considered critical during contractor selection.	1	2	3	4	5
CS14	Contractors core values are not considered critical during selection	1	2	3	4	5

CS15	Contractor commitment to safeguarding venerable groups is not assessed during selection	1	2	3	4	5
CS16	Bidder's policies on environmental sustainability is not considered critical during election	1	2	3	4	5
CS17	The staff involved in contractor selection lack adequate skills for proper analysis of contractors' bids	1	2	3	4	5

SECTION C

CONTRACTOR MONITORING

(For National Road Projects under Uganda National Roads Authority –UNRA)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

CM1	There is poor record management on road projects	1	2	3	4	5
CM2	There are no regular site inspections on road projects	1	2	3	4	5
CM3	No technical audits are conducted during project implementation	1	2	3	4	5
CM4	Project expectations are not clearly communicated to contractors	1	2	3	4	5
CM5	Contractor performance appraisal is not done during project implementation	1	2	3	4	5
CM6	Staff designated to monitor contractors lack adequate supervisory skills	1	2	3	4	5

CM7	There is no timely payment of contractors	1	2	3	4	5
CM8	There are no clear dispute resolution procedures for road projects	1	2	3	4	5
CM9	There are no approved procedures in place for contractor monitoring	1	2	3	4	5
CM10	Most contracts supervisors do not prepare monitoring plans	1	2	3	4	5
CM11	There is no clear feedback mechanism between contractor and employer on road projects	1	2	3	4	5

The role of the oversight agencies					
Interventions by oversight agencies lead to unnecessary delays in project implementation	1	2	3	4	5
The oversight agencies are critical in ensuring PDE award projects at right costs	1	2	3	4	5
Oversight agencies ensure contractors deliver quality works	1	2	3	4	5
Oversight agencies should allow PDE act independently in awarding of contracts	1	2	3	4	5
PPDA has not been effective in ensuring compliance in the procurement for road project procurements					
PPDA has not been effective in its advisory role in procurement for national road projects					
PPDA has not been effective in setting standards in procurement road					

projects					
PPDA intervention during the procurement processes has not been effective improving performance of road projects					
PPDA has not effectively built capacity of key players on road projects.					

SECTION D

PERFORMANCE OF ROADS PROJECTS (Cost, time and quality)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

Cost of implementation						
C1	Most road projects are never implemented within the contracted costs	1	2	3	4	5
Time of delivery						
T1	Most road projects are never completed in project scheduled time	1	2	3	4	5
Quality						
Q1	Most national roads have no safety provision for pedestrians	1	2	3	4	5
Q2	There are inadequate road safety signage on national roads	1	2	3	4	5
Q3	There are many accidents on national roads due to design faults	1	2	3	4	5
Q4	National roads are too narrow to ease traffic mobility	1	2	3	4	5
Q5	Most roads have poor drainage	1	2	3	4	5

APPENDIX II: QUESTIONNAIRE FOR CONTRACTORS

My name is Nicholas Bankunda Kajinya a student of Masters in Business Administration of Uganda Management Institute. In partial fulfillment of the requirements for the degree, I am required to conduct a research in an area of my interest. My interest in this study is to evaluate the relationship between contractor management and the performance of road infrastructure projects in Uganda. You have been sampled to participate in this study and the information you give will be used strictly for academic purposes and will never be used against you or your office. The information got from you will be kept confidential. You are also requested not to write your name on this questionnaire. Fill out the questionnaire and return to me.

SECTION A BIO-DATA

Please tick the appropriate option

Age	20-29	30-39	40-49	Above 50	
Sex	Male	Female			
Marital status	Married	Single	Widowed	Divorced	
Level of Education	Masters	Bachelors	Diploma	Certificate	Others Specify

SECTION B

CONTRACTOR SELECTION:

(For National Road Projects under Uganda National Roads Authority –UNRA)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

CONTRACTOR SELECTION

Procurement Procedures and Evaluation criteria						
CS1	The procurement procedures do not provide for flexibility in during selection	1	2	3	4	5
CS2	The current bid evaluation method is not appropriate for complex road infrastructure projects	1	2	3	4	5
CS3	The procurement process is too long and time consuming.	1	2	3	4	5
CS4	The procurement procedures give avenues for frivolous complaints during selection.	1	2	3	4	5
CS5	The current bid evaluation methodologies eliminate competent contractors on minor eligibility requirements	1	2	3	4	5
CS6	Some of the contractors selected lack competent personnel	1	2	3	4	5
CS7	Some of the contractor selected lack appropriate experience in similar works	1	2	3	4	5

SECTION C

CONTRACTOR MONITORING

(For National Road Projects under Uganda National Roads Authority –UNRA)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

CM1	There is poor record management on road projects	1	2	3	4	5
CM2	There are no regular site inspections on road projects	1	2	3	4	5
CM3	No technical audits are conducted during project implementation	1	2	3	4	5

CM4	Project expectations are not clearly communicated to contractors	1	2	3	4	5
CM5	Contractor performance appraisal is not done during project implementation	1	2	3	4	5
b) The role of the oversight agencies						
PPDA has not been effective in ensuring compliance in the procurement for road project procurements						
PPDA has not been effective in its advisory role in procurement for national road projects						
PPDA has not been effective in setting standards in procurement road projects						
PPDA intervention during the procurement processes has not been effective improving performance of road projects						
PPDA has not effectively built capacity of key players on road projects.						

SECTION D

PERFORMANCE OF ROADS PROJECTS (Cost, time and quality)

Strongly Disagree (SDA)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Please tick the most appropriate to indicate your position on the statements below

Cost of implementation						
C1	Most road projects are never implemented within the contracted costs	1	2	3	4	5
Time of delivery						
T1	Most road projects are never completed in project scheduled time	1	2	3	4	5
Quality						
Q1	Most national roads have no safety provision for pedestrians	1	2	3	4	5
Q2	There are inadequate road safety signage on national roads	1	2	3	4	5
Q3	There are many accidents on national roads due to design faults	1	2	3	4	5
Q4	National roads are too narrow to ease traffic mobility	1	2	3	4	5
Q5	Most roads have poor drainage	1	2	3	4	5

**APPENDIX III: INTERVIEW GUIDE FOR PROCUREMENT PROFESSIONALS,
PRIVATE CONSULTING ENGINEERS (UACE) AND PROJECT ENGINEERS AT
UNRA AND CONTRACTORS**

A: Contractor Selection

To what extent is the current contractor selection procedure appropriate for national road projects?

To what is the current selection process cause for delays in implementation of road projects?

To what extent does the current contractor process affect the quality and cost of road projects?

What do you think should be done to address the challenges in contractor selection?

B: Contractor Monitoring

What is the most appropriate way to monitor contractors?

Which method of contractor monitoring will address the escalating cost for road projects in Uganda?

Of the contractors monitored internally by UNRA staff and those monitored by external out sourced firm, which do you think offers the best roads?

What is the best method UNRA can adopt for contractor monitoring?

C: Oversight Role of Agencies

To what extent does the oversight role by PPDA and IGG ensure quality delivery of roads?

What extent does the oversight role by PPDA and IGG ensure that projects are delivered at low costs?

What extent does the oversight role by PPDA and IGG ensure that projects are delivered on time?

How can the oversight role be made more proactive?

D: Performance of Road Projects

To what extent has UNRA achieved the road work projects on time?

To what extent has UNRA achieved the road work projects at a least cost?

To what extent has UNRA delivered quality roads in Uganda?

What can be done to enhance the performance of national road projects under UNRA?

APPENDIX IV: DOCUMENTARY REVIEW CHECLIKST

Ministerial Policy Statement for Ministry of Works and Transport

Ministerial Policy Statement for UNRA

Ministerial Policy Statement for PPDA

Annual Engineering Audit Reports by UNRA

UNRA performance reports issued by the World Bank missions

Report by Tribunal investigating the UNRA performance

Annual Audit Reports of the Office of the Audit General on UNRA and Ministry of Works and Transport

Procurement Audit reports on UNRA by PPDA

PPDA Act of 2003 and PPDA Regulations of 2014

Procurement Performance Management System (PPMS) reports by PPDA