



**ASSESSMENT OF THE EFFECTS OF PROCUREMENT PROCESSES ON THE
PERFORMANCE OF CONSTRUCTION CONTRACTS IN LOCAL
GOVERNMENTS IN UGANDA: A CASE OF SHEEMA DISTRICT**

BY

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Certification

We, the undersigned certify that we have read and hereby recommend for acceptance by Kyambogo University this dissertation titled *“Assessment of the Effects of Procurement processes on the Performance of Construction Contracts in Local Governments in Uganda: A case of Sheema District Local Government”* in fulfillment of the requirements for the award of the degree of Master of Science in Construction Technology and Management of Kyambogo University.

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Declaration

I, **Tumusiime Musiime Fred**, hereby declare that this dissertation is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person or material which has been accepted for the award of any other degree in this university or other institute of higher learning. Where academic publications of others scholars have been used, due acknowledgement has been made in the text and in the list of references.

.....

Tumusiime Musiime Fred

.....

Date

Dedication

This dissertation report is dedicated to my entire family, my course mates and my supervisors who have been my source of inspiration and gave courage when I thought of giving up, who continually provided supported both financially and moral from the beginning up to this time. May the lord reward you abundantly.

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List of Abbreviations

\$	United States Dollar
£	United Kingdom Pound Sterling
CAO	Chief Administrative Officer
CIPS	Chartered Institute of Procurement and Supply
CM	Contract Management
DFID	Department for International Development
DLG	District Local Government
DSA	Daily Subsistence Allowance
DV	Dependent variable
GDP	Gross Domestic Product
IAG	Internal Auditor General
ICT	Information and Communication Technology
IV	Independent Variable
KCCA	Kampala Capital City Authority
KPIs	Key Performance Indicators
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments and Agencies
O&G	Oil and Gas
OAG	Office of the Auditor General
OPM	Office of Prime Minister
P&SM	Procurement and Supply Management

PAC	Public Accounts Committee of Parliament
PDEs	Procurement and Disposal Entities
PM	Project Management
PMI	Project Management Institute
PPDA Act	Public Procurement and Disposal of Public Assets Authority Act
PPDA	Public Procurement and Disposal of Public Assets Authority
RBT	Research Based Theory
SPSS	Statistical Package for Social Sciences
SSA	Sub Saharan Africa
TIA	Time Impact Analysis
ToCs	Terms of Contract
UGX	Uganda Shillings
UK	United Kingdom
UNRA	Uganda National Roads Authority
US	United States

Abstract

Globally, public procurement offers a framework used to implement initiatives and programmes for socio-economic development. Despite this, public sector procurement faces a number of challenges which include; lack of transparency and limited recognition of the strategic importance of the procurement function, among others. This study therefore focused on assessing the effects of procurement processes on performance of construction contracts in Local Governments in Uganda using Sheema district as a case study. The study assessed the effects of procurement planning, and contract monitoring and administration on the performance of construction contracts.

The study adopted descriptive research design and used simple random sampling to sample 81 respondents out of a target of 86. These were selected using simple random and purposive sampling techniques. Both quantitative and qualitative and quantitative data were collected. Quantitative data were collected using questionnaires and analysed using SPSS while qualitative data were collected using interview and document review guides. The quality of the data collection instruments was assessed using Content Validity Index and Reliability analysis. Quantitative data were analysed using descriptive means and the hypotheses tested using multiple regression analysis while qualitative data were analyzed using narrative text.

The study revealed that contingency plans were never developed, procurement checklists were not commonly prepared; and few stakeholders were involved, among others which indicated that there was poor procurement planning in Sheema District. Regarding contract monitoring and administration, the results revealed many deficiencies such as limited follow up monitoring, contractor performance was rarely cross checked; and timely monitoring reports were not regularly prepared for management to take action, among others all of which indicated gaps in the contract monitoring and administration activities in the District.

The study concluded that procurement planning has a significant effect on the performance of construction contracts and equally, contract monitoring and administration has a significant effect on the performance of construction contracts in Sheema DLG. On the basis of multivariate model relating performance of construction contracts, procurement planning (X_1), and contract monitoring and administration (X_2) as indicated below: $Y = 0.311 + 0.113X_1 + 0.625X_2 + \epsilon$ (where ϵ is the error term). The study also developed a framework to control procurement process in DLGs in Uganda. The study recommended that further research be carried out to improve the developed framework as well as explore the challenges of construction procurement in DLGs.

Key Words: *Procurement Planning, Contract Administration, Procurement Processes, Contract Performance, Construction Contracts, District Local Government.*

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Public procurement offers a framework that can be used to implement initiatives and programmes that are geared towards the realisation of socio-economic objectives (Kiiru, 2015). Globally, more governments are placing emphasis on the development of infrastructure projects (Orr & Kennedy, 2008). World Bank (2011) noted that about 75 per cent of the world's total annual expenditure (equivalent to five trillion United States Dollars) goes towards procurement-related activities. Public procurement plays a significant role in the generation of a country's wealth since it accounts for approximately 16% of most countries' Gross Domestic product (Aketch & Karanja, 2013). Effective public procurement is essential for good public services and good governance (Oluka & Basheka, 2014). The procurement process spans a life cycle from identification of the need, through the selection of suppliers, to post-contract award management, including disposal (Bolton, 2006).

In developing countries of Africa, public procurement on construction is increasingly recognised as essential in service delivery and it accounts for a high proportion of total expenditure (Basheka & Bisangabasaija, 2009). For instance, infrastructure procurement accounts for 60% in Kenya, 58% in Angola, 40% in Malawi (Akech, 2005). In Zimbabwe, it is estimated that 60% of government expenditure is allocated to public procurement in constructions, which is significant for a country that is facing liquidity challenges coupled with a lack of balance of payments support (Dzuke & Naude, 2017).

In Sub-Saharan Africa (SSA), Ndercaj and Ringwald (2014) identified the following common problems affecting public sector procurement: a) the lack of transparency, accountability and integrity in policy and process, b) the lack of professional, managerial and leadership skills, c) the lack of strategic recognition for the procurement function, d) the continued failure to implement appropriate change and e) weak and outdated procurement policies and processes. In the same region, the levels of spending on infrastructure range between 30 and 43 billion United States Dollars towards the procurement market (Agaba & Shipman, 2008). Actually, according to Agaba and Shipman (2007), the total expenditure is at 40% in SSA which is higher than the global average of 12-20%. Owing to this size of these budgetary allocations to procurement activities, well-functioning public procurement systems in the region are needed in order to monitor and make certain that resources allocated to procurement units are properly expensed (Omuoso, 2013).

In East Africa, studies have reported cases of procurement contract mismanagement; for example a study in Tanzania found out that there was ineffectiveness in procurement contract management caused by the lack of competent personnel armed with skills and experience to manage contracts (Mlinga, 2008). Mlinga (2008) recommended that there was need to have a contract manager with enough skills and experience in the field that they are supervising. Another study by Marco (2013) revealed that contract management stage was deemed to be a separate process to procurement; procurement functions are headed by the non-procurement professional which implied that, most of the decision

reached at never complied with the requirements of procurement laws in awarding contract to bidders.

In a study conducted in Kenya, Waigwa and Njeru (2016) found that procurement policy framework guidelines are important for the success of the contracts in public agencies, however it had the lowest effect compared to the other two factors. The study also established that service markets using tools such as Information and Communication Technologies (ICT) have enhanced and efficient contract management among the public agencies. Waigwa and Njeru (2016) further established that training and motivation correlated significantly with the success of contract management which implied that employees need to have the skills and knowledge necessary to make the contract management effective. The above study concluded that effective management of contracts of whatever size and for whatever purpose is an essential requirement for all public sector agencies and for this to happen, then the agencies must ensure that there is an effective policy framework. A study by Kibogo and Mwangangi (2014) found that information technology, management styles and employee competence influenced contract management in public procurement.

1.2 Procurement in Uganda

In Uganda, Public Procurement and Disposal of Assets is handled by Procurement and Disposal Entities (PDEs) and governed by the regulations made under the Public Procurement and Disposal Assets (PPDA) Act of 2003. These regulations specify procurement guidelines and standards to all potential providers of goods, services and

works (PPDA Act, 2003). Still in Uganda, poor procurement planning has led to non-compliance to the PPDA Act and guidelines (Byaruhanga & Basheka, 2017). Muhakanizi (2015) postulated that poor procurement planning in Uganda is characterised by failure to prepare adequate specifications leading to cost over runs and design reviews as well as onsite delays.

Oluka and Basheka (2014) identified the major determinants of deficiency in procurement contract management in Uganda such as: lack of political will to monitor contracts, lack of capacity in contract management, monitoring of various stakeholders, and lack of integrity in the contract management process. Proof of the said causes of poor performance of contract management in Uganda is provided by the 2017 PPDA Annual Procurement and Disposal Report (PPDA, 2017) in which: a) 106 procurements worth UGX 27,254,851,330 execution of works was delayed, there was poor workmanship and the contractors abandoned the sites before contract completion; b) 518 procurements worth UGX 50,786,805,589 showed no evidence of appointment of contract supervisors and preparation of contract implementation plans, c) 236 procurements worth UGX 25,055,153,118 indicated that evaluation methodology and criteria stated in the solicitation document was not adhered to and there was unfairness during evaluation leading to contract award to non-compliant bidders and compromises on benefits of maximum competition, and d) 195 procurements worth UGX 12,701,305,846 entities failed to prepare solicitation documents and 68 procurements worth UGX 13,800,419,774 used wrong procurement methods.

For the case of Sheema District, the same PPDA report (PPDA, 2017) revealed that there was non-compliance to the set criteria per the PPDA Act, regulations, and guidelines and the Procurement Audit Manual. For instance, the compliance levels (which indicated unsatisfactory performance) for the Accounting Officer, Procurement and Disposal Unit, Contracts Committee, User Departments, and Internal Controls were 56%, 53%, 55%, 45%, 40%, and 50%, respectively. Poor procurement performance is a major hindrance to procuring entities growth since it causes the delay of delivery, cost overrun and increase of defects (Gordon Murray, 2009). Shanmugaraja et. al., (2013) stressed that many procurement activities suffer from neglect, lack of direction, interference, poor co-ordination, lack of open competition and transparency, differing levels of corruption. Most importantly they suffer from not having a cadre of trained and qualified procurement specialists who are competent to conduct and manage such procurements in a professional, timely and cost effective manner. Against this background, this study sought to assess the effects of procurement processes on the performance of construction contracts in local government in Uganda particularly of Sheema District; focusing on procurement planning, and contract monitoring and administration.

1.3 Statement of the problem

Procurement process is now one of the top items that consume public funds in Uganda especially in the construction sector. In order to improve on construction works, a number of interventions have been put in place including empowerment of local governments' procurement systems, instituting oversight organisations like Inspectorate of Government, Office of the Prime Minister, Public Accounts Committee, Internal Audit General and

Office of Auditor General. Despite all these interventions, there is poor performance of construction contracts in Local Governments. For example, PPDA audit report for the year 2017 (PPDA, 2017) revealed that in Sheema District, there was a 30% planned procurement absorption rate with a variance of UGX 5,682,625,719 (70%) lower than the planned procurement of UGX 8,261,820,088. Besides, the project performance reports for the financial years 2015/2016-2018/2019 indicate that on a number of projects implemented in the said periods, there were repetitive cost and time overruns (Sheema DLG Project Evaluation Reports, 2015-2019). This prompted the researcher to assess how the procurement processes are managed and how this affects performance of construction contracts with an aim of making logical recommendations to key stakeholders for improving the performance of construction contracts.

1.4 Objectives of study

1.4.1 Main objective

The main objective of this study was to assess the effect of procurement processes on performance of construction contracts in Local Governments in Uganda.

1.4.2 Specific objectives of the study

The study was guided by the following specific objectives;

- i. To assess the effect of procurement planning on the performance of construction contracts Sheema District Local Government;
- ii. To assess the effect of contract monitoring and administration on the performance of construction contracts in Sheema District Local Government;

- iii. To develop a framework to close gaps within procurement process to improve performance of construction contracts in Local Governments in Uganda.

1.5 Hypotheses

The study tested the following hypotheses;

H₀₁ There is no relationship between Procurement planning and performance of construction contracts

H₁ There is a significant relationship between procurement planning and performance of construction contracts

H₀₂ There is no relationship between contract monitoring/administration and performance of construction contracts

H₂ There is a significant relationship between contract monitoring and administration and performance of construction contracts

1.6 Justification of the Study

This study was conducted in Sheema DLG because it was ranked 65th with an overall score of 52.9; which is unsatisfactory according to the 2017 PPDA report (PPDA, 2017). Sheema DLG was considered as a case study in order to enable the researcher establish the deficiencies in the procurement system and processes so as to enable the management of the District to devise strategies for the effective monitoring and appraisal of procurement performance of government agencies operating in the district on the basis of statutory procurement recommendations and guidelines. Failure to unearth the anomalies in the system might spell doom for the construction activities in the district as the contracted companies might continue to bypass and ignore statutory specifications spelt out in the

PPDA Act, thereby leading to shoddy works, none-compliance and untimely delivery of construction contracts.

1.7 Significance of the study

Performance of construction contracts in Local Governments by taking into account procurement related issues have not been widely researched.

Despite continued outcry of poor performance of construction contracts in terms of completion, payment and quality of works (Abbas, 2006), there is limited information about the cause of the poor performance and more so in relation to procurement processes. This study therefore adds extensive information to the existing limited knowledge on the effect of procurement process on performance of construction contracts in local governments. Results from this study will assess the policy makers to take corrective actions. Furthermore, the study is relevant for local government and other agencies to improve on performance of construction contracts in terms of cost, quality and timeliness for the good of the whole community.

In the academic parlance, the findings of the study could benefit future scholars studying public procurement processes; they could, for example, use the findings as secondary data for their studies and/or adopt the methodology used by this study as well as the data collection tools. The accomplishment of this study equally benefits the researcher by refining the research skills in data collection, literature review, data analysis and report

making; and the very skills gained could be vital in executing future research related assignments both at academic and management levels.

1.8 Scope of the study

1.8.1 Geographical Scope

The research study was carried out in Sheema District Local Government because of unsatisfied overall score of 52.9 in 65th position it has been having challenges with procurement and performance of contracts (PPDA, 2017). Sheema District is bordered by Buhweju District to the North, Mbarara District to the east, Ntungamo District to the south, Mitooma District to the southwest and Bushenyi District to the west. It has three constituencies that is Sheema county North, Sheema Municipality and Sheema County south with the total population is 207,343 of which 99,225 are Male and 108,118 are Female (UBoS, 2015).

1.8.2 Time scope

This research study was conducted for 10 months running from August 2018 to June 2019.

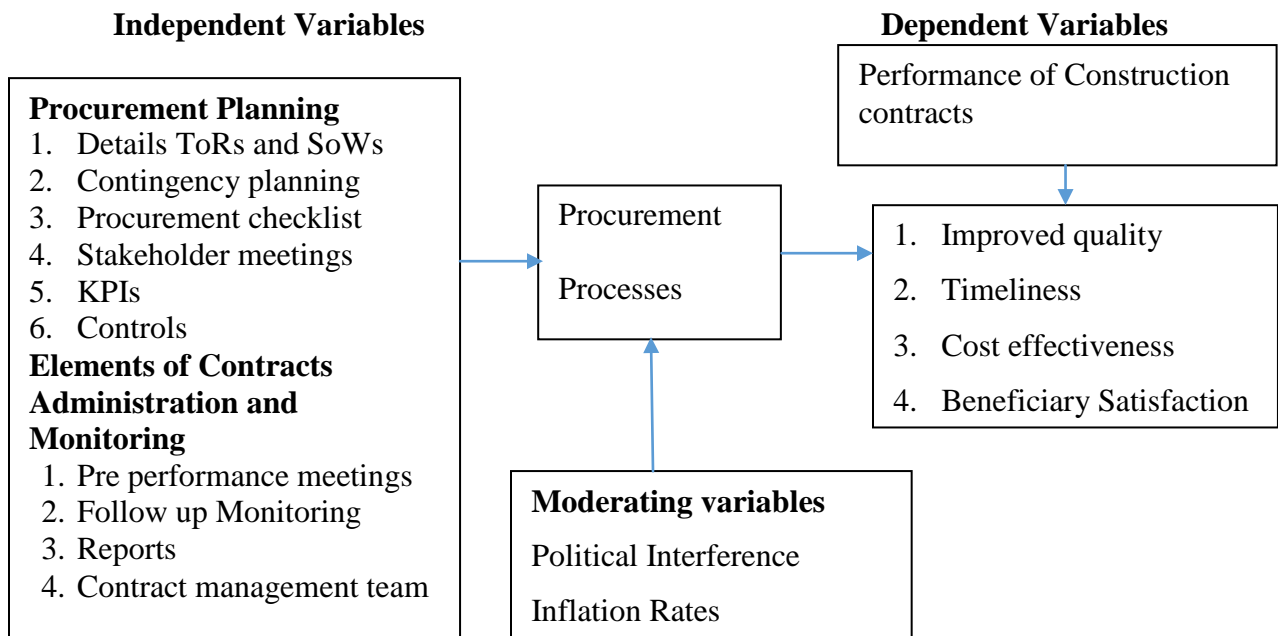
1.8.3 Content Scope

This research focused on procurement related factors and the performance of construction works. This study specifically established the procurement related factors that undermined the performance of construction contracts, determined the impact of procurement related factors in the performance of construction contracts and developed a framework that would

close the gap within the procurement process to improve performance of construction contracts in Local Governments in Uganda.

1.9 Conceptual Framework

In order to focus this study, a conceptual framework was developed to postulate the linkage between the independent variables and the dependent variable as shown in Figure 1.1.



SoW- Statement of Works; ToRs- Terms of Reference; KPIs- Key Performance Indicators

Figure 1. 1: Conceptual framework relating procurement processes and performance of construction contracts.

The independent variables are procurement planning, and contract monitoring and administration. The dependent variable was performance of construction contracts which include quality of the deliverables, timeliness, cost effectiveness and beneficiary satisfaction. The conceptual framework also shows the moderating variables; which may

directly and / or indirectly play a mediating role on the influence of procurement processes and performance of construction contracts in Sheema DLG.

1.10 Operational Definitions

Procurement: This refers to the purchase of merchandise and / or services at the optimum possible total cost in the correct amount and quality. In this study, it refers to purchase of construction materials for contracted projects.

Planning: This is operationally defined in this study to mean deciding on what to do, how to do it, when to do it and who does it. In this study, planning refers to the activities performed by Sheema DLG to ensure that the contracted projects are implemented with efficiency and effectiveness.

Contractor selection: It refers to the choosing of the most appropriate contractor to deliver the construction contract as specified so that the achievement of best value for money is assured. In this study, contractor selection refers to the activities performed by Sheema DLG to ensure that the most competent firms are contracted for construction projects.

Performance: Is the accomplishment of set tasks as measured against preset standards of Quality, Timeliness and Client satisfaction. In this study, performance means how well, a given complete construction projects meets the quality and timeliness objectives as well as complying with the set requirements and standards for quality services delivery.

1.11 Dissertation Outline

The dissertation is comprised of five Chapters, one through five. Chapter One provides background information that underpins the purported relationship that the study sought to establish. It provided a global perspective about public procurement and tied it to construction projects. The chapter also provided backdrop information about public procurement in SSA and then Uganda and zeroed down further to Sheema DLG to expound on the inequities and deficiencies in public procurement. This provided basis for identification of the symptoms of the likely deficiency in the procurement processes that were incorporated in the problem statement. The chapter also spells out the study objectives, main and specific and the hypotheses (null and alternative) that were tested by the study. The limits of the study (scope) and its significance are defined in this chapter as well as the conceptual framework which shows the dimensions of the study variables. The chapter also provides the operational definitions of key terms as used in the study and ends with an outline of the entire dissertation.

Chapter Two presents a review of literature related to the study variables. The actual review of literature is preceded by theoretical review which expounds on three theories that were selected to provide underpinning information on procurement processes and their likely effect on performance of construction contracts. The chapter ends with a summary that provides a highlight of the gaps that were left by the reviewed studies.

Chapter Three provides an explanation of the methodology that was adopted by the study. In the chapter, the research design, study population, sampling and sample selection

techniques, data collection methods and instruments, data quality control particularly validity and reliability and data analysis methods are presented and illustrated in the realm of the three objectives set by the study.

Chapter Four entails presentation, analysis and discussion of results. The Chapter begins with the presentation of results on response rate, the characteristics of the respondents such as age, working, gender and level of education are presented followed by the key findings, objective by objective. The chapter ends with a summary.

The dissertation's Chapter five presents a summary of the major findings, conclusions and recommendations of the study.

1.12 Chapter Summary

The foregoing chapter provided background information on public procurement and performance of construction from Global, continental and local perspectives. The information provided insights into the actual problem that warranted the study. The objectives and scope of the study are also defined as well as the conceptual framework that shows the breakdown of the study variables. In the next chapter, literature related to the effect of procurement planning, and contract monitoring and administration on the performance of construction contracts was reviewed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the review of literature on procurement processes and performance of construction contracts. It systematically addresses concepts related to the topic of study in order to establish the research gap. The chapter is organised under the following themes: theoretical review, conceptual review and summary of the literature review. The literature related and relevant to the study was derived from different sources including journals, textbooks, websites, research papers, magazines, other documents and government legislations.

2.2 Theoretical Review

The study was guided by two key interrelated theories namely: stakeholder theory and resource-based view theory.

2.2.1 Stakeholders Theory

Stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization (Fontaine et. al., 2006; Harrison et. al., 2015). Originally stated by Freeman (1984) in the book titled Strategic Management, the approach identifies and models the groups which form stakeholders of a project and describes and recommends the methods by which management can give due regard to the interests of those groups. In the traditional view of a company, the owners or

shareholders of the company are important, and the company has a binding fiduciary duty to put their needs first.

Stakeholder theory includes all parties that might be affected by the interventions. These include employees, customers, suppliers, financiers, communities, governmental bodies, political groups, trade associations, and unions (Kajaga et. al., 2016; Kochan & Rubinstein, 2000). Stakeholder theory is famous not only in the business ethics fields but also as one of the frameworks that incorporates social and corporate responsibilities (Mainardes et. al., 2013). Many construction projects have experienced cost overruns due to a lack of ethics and malpractices such as dishonest, fraud and corruption (DFID, 2013). The interests of the stakeholders are important for a project to gain the support of all those affected. The study adopted this theory because of its relevancy in a way that all the procurement processes for construction works have a number of stakeholders with diverse interests. The study aimed at establishing the influence of incorporating stakeholders' interests in procurement process in order to avoid issues which are associated with project delays during initiation, execution and completion of construction projects.

2.2.2 Resource-Based View Theory (RBT)

The resource-based view of organizations is based on two main assumptions; resource diversity and resource immobility (Mata, William & Barney, 1996). Resource diversity (also called resource heterogeneity) involves assessment to ascertain whether a firm owns a resource or capability that is also owned by other competing firms, then that resource cannot provide a competitive advantage (Mata et. al., 1996). Resource immobility refers to a resource that is difficult to obtain and organized by competitors because the cost of

developing, acquiring or using that resource is too high (Mata et. al., 1996). According to RBT, an organisation's mission is to create value for their clientele in order to succeed in their venture (Almarri & Gardiner, 2014; Ramon-Jeronimo et. al., 2019). This is normally achieved using strategy, technology, innovation, and investment in capital projects (Balashova & Gromova, 2016). The resource-based view model that sees resources as key to superior organizational performance (Almarri & Gardiner, 2014). The approach suggests that the need for assessment of resources within the organization to find the sources of competitive advantage without looking at the competitive environment for it (Mata et. al., 1995).

In order to create a workforce that provides a sustainable competitive advantage and value creation, an organisation must ensure that there is an environment that allows their human capital to grow (Afiouni, 2007). This growth is achieved by increased educational opportunity, knowledge management practices and systems, motivation and engagement among other essential factors and must be used to create a competitive advantage that would be very difficult for competitors to reproduce (Afiouni, 2007; Agarwal & Ferratt, 2001; Luftman & Kempaiah, 2007).

2.2.3 Agency Theory

The agency theory was put forward by Meckling in 1976. It is concerned with agency relationships between two parties, one known as the principal and the other as agent and the two parties have an agency relationship when they cooperate and engage in an association wherein one party, the principal, delegates work and decision making authority

to another agent, to act on their behalf (Eisenhardt, 1989). The underlying assumption of the principal-agent theory is that there should be a clear understanding of the needs of the principal and ability of the agent to meet these needs competently (Panda & Leepsa, 2017). Principal must closely monitor agents' performance; create reward structures that reinforce desired performance. Indeed, when procurement contract is well defined and planned, the principal and agents find it easy to meet needs of each other in an efficient way resulting into timely execution of the contract (Oluka & Basheka, 2014).

The assumptions and prescriptions underlying the agency theory match naturally with the issues inherent in supply chain quality management (Kultys, 2016). In the process of managing supplier quality, buyers in agency relations face potential problems. By their nature, buyers would expect suppliers to provide expected quality and to better the quality of services and products supplied (Lan & Heracleous, 2010). On the contrary, suppliers may be reluctant to invest majorly in quality, especially if they think that buyers could be reaping all the benefits.

Agency theory determines how procurement managers execute procurement practices on behalf of tertiary public training institutions (Eisenhardt, 1989). Existence of poor principal- agent relationship leads to low level of top management commitment and this also affects the relationship between institutions and the suppliers (Panda & Leepsa, 2017). As well, the existence of conflict of interest amongst the agents leads to execution of procurement practices that deviate from the standards spelt out in the formalized

procurement policies and this leads to increased procurement budget and loss of procurement funds (Eisenhardt, 1989).

2.3 Conceptual review

2.3.1 Effect of procurement processes on performance of construction projects

According to Attarzadeh and Ow (2008), procurement is divided into a number of processes which are clearly distinct; the processes are at initiation, intermediate and execution levels. At initiation level one has to plan basing on the needs, assess availability of resources and budget for the needs then clearly state what goal of the organisation the deliverables will be able to fulfill or contribute to in order to be more meaningful. Therefore a professional procurement process can be incredibly beneficial if one is aiming at streamlining purchasing; it can ensure that one pays the best price for goods or services, save time by choosing the most reputable vendors, and minimize order delays and mistakes (Weiss & Potts, 2012).

The intermediate processes of procurement involve the steps taken in the identification of how and who will deliver the identified needs (Weiss & Potts, 2012); this involves the process of identification of service providers which in the realm of local government set-up, requires advertising and then clearly stating the terms of reference for the interested service providers. All these processes end with the selection of the best evaluated bidder or service provider also known as the contractor in construction projects. This is in line with the works of Omuoso (2014).

According to Aibinu and Jagboro (2002), the process of procurement does not end at the selection of service providers but rather continues up to point of delivery and also goes up to when retention period is finalised. Weiss and Potts (2012) contend that it is the work of the procurement departments to schedule the construction works as part of the terms of reference (ToRs) for the service providers to ensure deliverables are timely, involve as many stakeholders as possible and puts in place mechanisms for quality assurance including monitoring and evaluation. Omuoso (2014) further suggested the use of integrated time and cost management system since the contract resources are important aspects in procurement contract performance.

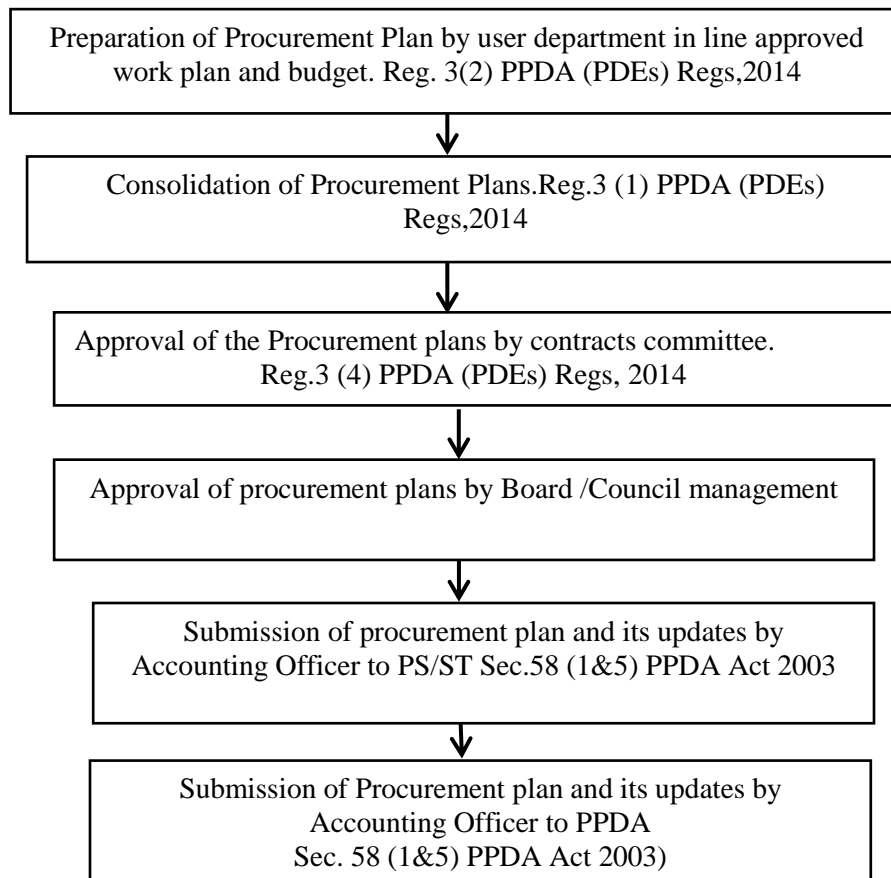
Construction contracts performance, according to Othman and Ahmed (2013), is associated with timely deliverables, quality outputs that meet expectations of the clientele. In this study the researcher studied the ways in which the procurement processes are related to the performance of construction contracts.

Procurement Planning

Rono (2013) states that procurement planning is a process whereby procurement practitioners sketch out in advance, an arrangement with a diagram plan as to what, which, when and how purchases are to be conducted in a given period. Agreeably, Mamiro (2010) in his study findings underscores these facts and concludes that one of the major setbacks in public procurement is poor procurement planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets

and inadequacy of skills of procurement staff responsible for procurement and this leads to shoddy works and delays in construction contracts.

The legal requirements that guide public entities in planning have to be adhered as defined in section 58 of the PPDA Act (PPDA, 2014) as shown in Figure 2.1. The planning function encompasses defining an organisation's goals, establishing an overall strategy for achieving those goals, and developing a comprehensive hierarchy of plans to integrate and coordinate the activities (Robbins 2001).



Reg-Regulation; Sec- Section

Figure 2. 1: The public procurement planning process in Uganda

Source: PPDA Act (2014)

Procurement planning provides a framework for the execution of the requirement and user departments usually expect their requirements to be delivered within the shortest time possible (Nassuna, 2017). Within the budget confines, user departments would normally choose a procurement method which achieves their immediate expectations than the legally acceptable procurement method (Lynch, 2013). Guyana (2010), asserts that procurement needs are normally initiated late leading to late implementation of projects; it is a procurement strategy that is done at a procurement planning stage and it's an important factor of production. Thus, without respecting time, procurement activities are currently faced with problems of delays that is normally brought about by poor procurement planning.

According to Kuuse (2014), it is important to establish the delivery schedules in line with the contractual obligations and that this is done at the procurement planning stage. Costs and deadlines need to be respected in order to act as a control measure. According to Mwanje (2016), procurement processes require timely completion of the project; despite this standard, most entities in Uganda accumulate arrears as a result of poor procurement planning. Unplanned activities normally lead to spending outside the budget according to the 2013 PPDA Annual report (PPDA, 2013). All the expectations of stakeholders need to be studied and assessed so that they are feasible and implementable by the procurement units. The legal requirements that guide public entities in planning have to be adhered to in Uganda as per section 58 of the PPDA Act amended (Nassuna, 2017).

Sabiti et. al., (2011) conducted a study in Uganda on developing public procurement performance measurement systems in developing countries noting how proper planning may influence procurement performance. The study by Sabiti et. al., (2011) established that the key to accountability is the capacity to select the best contractors within the public sector. The internal contractor selection process of government, procurement and personnel have long received sustained attention as the centerpiece of reforms to promote accountability (World Bank, 2000). In Oluka's (2013) study on the challenges of procurement, it was pointed out that restricted tendering is a procurement method that limits the request for tenders to a select number of contractors (Oluka, 2013). According to the PPDA regulations of 2012, the restricted procurement method is a two-stage process (PPDA, 2012). In the first stage, the employer advertises their project and invites contractors to express interest to be placed on a selected list of contractors who will be invited to bid for the project (Oluka, 2013).

Ocharo (2013) in his study on the factors affecting procurement performance of Ministry of Energy in Kenya notes that planning is the process of choosing the most appropriate contractor to deliver a specified project so that value for money is achieved. Procurement methods are one of the critical steps in planning and bid evaluation methods are the key procedures through which a contractor is selected. Ocharo (2013) posits that planning is one of the main decisions made by the clients. In order to ensure that the project can be completed successfully, the client must select the most appropriate contractor. Ocharo (2013) further identifies procurement methods as the procedures used by the procuring entity to acquire goods, services and works.

Manthosi and Thawala (2012) report various methods besides planning such as negotiation, competitive, open-selective, design and build tendering approaches that have been used in construction projects. 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 & Thawala, 2012).

Planning must be done so that the chain of procurement is complete (Mwanje, 2016). This strategy is widely recommended for most construction clients (Murdoch & Hughes, 2015). In the studies conducted by Merna and Smith (2010), Trickey (2012) and Smith (2014), competitive tendering was seen as the best way to select a bidder with the lowest price. It was argued in the above studies that using lowest price as yardstick for selecting contractors ensures that the client gets value for money through free and fair competition. However, this argument was challenged by Pasquire and Collins (2014) who argued that the lowest contemporaneous price is not a guarantee for yielding the overall lowest project cost after execution and on this note, the researcher buys the idea. In such a situation, Pasquire and Collins (2014) further argue that stakes are high that once the lowest price is offered, companies with hybrid technology and more so the longest serving and credible firms will shy away from bidding as they consider investment in such a project a wasting asset. This typifies the shoddy works done on most government construction projects in developing countries because the low price compromises quality and yet quality is

supposed to be one of the core indicators of well performing construction projects as earlier espoused in the Conceptual Framework.

Pilcher (2012) notes that planning involves drawing up a shortlist of contractors deemed to have the appropriate qualifications to carry out the proposed work satisfactorily while negotiated or direct tendering is where the client invites a single contractor to submit a tender for a particular project. There is a tendency for entities to prefer using competitive methods of procurement given that they tend to promote transparency, economy and efficiency, and limit favoritism Lynch (2014). However, according to the study conducted by Masterman (2012), there is development of non-traditional procurement systems which seem to be the favorite to most clients of the construction industry.

According to Obanda (2010), public procurement in Uganda, especially, is afflicted with corruption and if not arrested, can significantly impact on procurement performance. Carvalho et. al., (2010) pointed out that the major source of fraud is the procurement process; fraud can take place at all points in the procurement process. Therefore, to properly deal with 'procurement fraud' one needs to focus on the entire procurement process and develop a necessary understanding and critical analysis of those spot areas of the procurement process that are prone to fraud. According to Savuth (2012), fraud and corruption pose serious threat to the ability of organizations to achieve its operational objectives and this generates allocative inefficiency by permitting the least efficient contractor with the highest ability to bribe to be the recipient of government contracts. The costs of fraud are passed on to society in the form of increased customer inconvenience,

opportunity costs, unnecessarily high prices of goods and services and criminal activities funded by fraudulent gains hence causing cost overruns in implementing construction contracts (Obanda, 2010).

According to Transparency international (2013), poor procurement planning in Uganda was pointed out as an indicator of corruption in public procurement; this makes the government sectors vulnerable to corruption. The large amounts of funds spent through procurement and the high levels of discretion and bureaucracy often involved in such processes provide incentives and opportunities for the rent seeking behavior (Obanda, 2010). According to Hao and Qi (2011), government procurement activity beginning with procurement planning tends to deliberately disown competition by providing information to some providers and withholding it for others in exchange of material gifts for civil servants to maximize their own utility. Incompetent contractors end up being contracted leading to poor quality work.

According to Kikwasi (2005), poor procurement planning normally leads to delivery of items beyond the agreed time lines. However, Lynch (2015) notes that such an anomaly is correctible once a procurement plan is developed. With the plan in place, then a schedule for time lines is clearly stipulated and has to be respected. However, evidence shows that poor procurement planning leads to late delivery of items (Nassuna, 2017). To resolve this, it's important to stay informed of the deadlines which are well stipulated in the procurement plan. Poor planning will not ensure that goods are delivered at the right place and at the best cost (Obanda, 2010). Goods must be delivered at the required place and

time. Late delivery is a sign of poor planning for the organisation hence leading to delays construction work (Lungisa, 2015).

According to Lungisa (2015) poor procurement is planning leads to poor development of specifications or terms of reference which eventually leads to poor quality goods being delivered. More so, Ambe and Badenhorst-Wess (2012) note that some government entities cannot properly specify the need and specify it leading to delivery of substandard products. Many procurement decisions recognise that systematic planning is essential if proper planning is to take place.

Contingency planning is a necessary component of the overall planning process that is often overlooked by agencies (Hutton, 2003); it addresses how the agency would respond in the event of an interruption of service delivery. Contingency planning allows the program or service to be quickly resumed (Nassuna, 2017). Risk response is the concrete outcome of risk management and it relates to the way risks are managed (Nassuna, 2017). It includes actions of risk reduction, risk avoidance, risk transference, risk mitigation and risk retention (Ayers, 2009).

2.3.2 Effect of contract monitoring and administration on the performance of construction contracts

Contract monitoring and administration aims at ensuring enforcement of contract terms while giving attention to achievement of stated output and outcome of the contract (Davidson & Sebastian, 2009). According to agency theory, the divergence of interests

between principal and agent can be mitigated by instituting proper contract management procedures and by monitoring activities to limit opportunistic actions which are aspects of inter-functional coordination (Kultys, 2016).

Contract monitoring is a process of ensuring that a vendor adequately performs a contracted service (CIPS, 2013). Key suppliers of high value and high risk goods and services (outsourced service providers, for instance) require close performance and relationship monitoring and this is where most resources should be employed. This may well involve monthly meetings where performance is discussed, issues resolved and new targets set as appropriate. Key supplier failure can bring significant losses to a business, and therefore it is important to ensure that the contract contains suitably robust exit clauses and contingency plans (CIPS, 2013).

In the event that the monitoring process is managed outside the Procurement and Supply Management (P&SM) function, it is essential to ensure the staff have sufficient authority and training to enable them to carry out their role. According to CIPS (2013), it is of critical importance that whoever carries out performance monitoring (and especially the review meeting with suppliers) has the correct skills and the full support of the P&SM function. This is particularly important when the payment mechanism in the contractual arrangement is contingent on supplier performance measures (CIPS, 2013). This recommendation presupposes that staff of an organization like Sheema DLG should engage in capacity building in order to enable her staff acquire the competences of handling the associated activities.

Training in contract monitoring increases the likelihood that an individual will monitor contracts reliably by giving them the appropriate background knowledge related to contracts (Hutton, 2003). Programme officials, who likely perform much of the day-to-day monitoring of vendor performance, may lack expertise in contract monitoring. When services are contracted out, the program official's duties evolve from that of performing the function to that of managing a vendor (Nassuna, 2017). Programme officials' expertise in the contracted service becomes only a portion of their job; it also becomes necessary for them to develop new skills in order to monitor a vendor performing that service (Hutton, 2003). Hutton (2003) further posits that for better administration and monitoring of contracts, management of organizations ought to formulate and have written policies and procedures on board as these serve as a guide to agencies and their personnel in ensuring a consistent, high quality contract monitoring process.

Miller and Lessard (2001) present four main risk management techniques, depending on the type of risk (systemic or project specific) and the extent to which risks are controllable; their proposed risk responses are shape and mitigate, shift and allocate, influence and transform institutions, and diversify through portfolios. Fewings (2013) argues that value and risk are intrinsically related and critical for project success. While value management seeks to maximise project cost and function, risk management seeks to minimise the uncertainty of not complying to cost and functionality targets (Mentis, 2015). This, in effect, is a chicken and egg scenario: if a project contract does not adequately define the project scope, then cost and functionality issues will arise (Denini, 2009).

According to PMI (2004), project success has two key variables: managers with the right competency and organisation with maturity, environment, structure and capability; a manager with the right competency and an organization that is not mature or capable will not generate successful performance, and vice versa. Knowledge management involves the process of acquiring, creating, sharing, utilizing, and storing intellectual assets that are internal and external to a business environment (Kazi, 2004). The key to building knowledge-base is on creating the right environment to build and enhance competency of contract administrators (Wang & Meng, 2018). While knowledge is an understanding gained through experience or study, skills are abilities that transform knowledge into use. Contract administrators should be knowledgeable in contract terms, conditions and specification, because no other risk mitigation measure is as important as knowing the contract (Abubakar et. al., 2017).

Molly (2007) stated that the first step in effective change management is to know what is in the contract. Havers et. al., (1996) posit that disputes are the result of conditions where parties disagree on the existence of an issue, which party was at fault, its impact, when it became an issue or what solution to take. A dispute is a disagreement between the contracting parties on a contract issue (Elcin, 2012). Quite often, disputes arise because of arguments emanating from one party not having full knowledge of the contract conditions and requirements (Stone, 2012). Most contract specifications are structured to include three main parts: the bidding and contractual documents and forms, the conditions of the contract, and the technical specifications (Fisk & Reynolds, 2010). According to Katz

(2004), risk management begins with the contract and prudent parties are expected to be knowledgeable about the contract conditions and what is required to meet those conditions.

Contract monitoring is a fulfillment of Pareto analysis (Nassuna, 2017). The Italian statistician Vilfredo Pareto (1848-1923) discovered a common statistical effect that about 20% of the population own 80% of the nation's wealth; about 20% of employees cause 80% of problems (Zhao, 2019); and about 20% of items account for 80% of the firm's expenditure (Lysons & Farrington, 2006). This analysis is applicable to this study in a sense that the operating company has to put more effort, time and resources on contract management for 20% of contracts to monitor contractors' performance which amount 80% of the whole total contract value in the organisation (Jia & Zhao, 2017). Due to limited resources on contract management function, organisation should focus and put more effort on key contracts to monitor contractors' performance (Mwanje, 2014).

Fjeldstad et. al., (2009) emphasise that contracts must incorporate mechanisms to reduce the risk of default, including measures to strengthening monitoring of agents; bidders must be required to provide a bank statement and bank guarantee or immovable assets as security to avoid substantial losses by default or embezzlement; which requires competent staff. Wami (2009) revealed that the presence of adequate and capable staff for contract management that proper monitoring system and positive staff attitudes are crucial for the success of the contract. Closely analyzed, the views of Wami (2009) and Fjeldstad et. al., (2009) suggest that ongoing and post contract award activities need to be closely monitored and controlled to enhance procurement contract

management especially during defect liability period where by defects identified by the consultants/engineers or users have to be rectified by contractors and liquidated damaged be charged for late deliveries as agreed in the contract.

According to a report by Breedon (2013) on his findings and recommendation on contract management, key performance indicators (KPIs) do not measure all of the critical elements of the service, or do not reflect areas of known service deficiency. There are uncertainties over accuracy of some reported KPIs and uncertainties over the suppliers' interpretations of the intent of some KPIs. Breedon (2013) further suggested that a contracting firm should design KPIs and data requirements which adequately measure and reflect the benefits the contract is intended to deliver. A performance management review process should be carried out at regular intervals for all contracts in order to ensure that KPIs remain relevant and deliver measures of contract benefits. KPIs must be designed to be fair and balanced (Jonsson & Rudberg, 2017). The report insisted the need of proper KPI and having a staffed and competent contract management team (Badawy et. al., 2016). However, the recommendations were made in the context of oil projects and in developed countries, thus leaving a gap for project performance in Local Government units in developing countries such as Uganda.

Kumar and Markeset (2007) in a case study on development of performance-based service strategies for the oil and gas industry considered various influencing factors and their attributes, as well as performance factors categorized as critical success factors, performance killers and cost drivers. The Kumar and Markeset (2007) study findings were:

operators of complex Oil and Gas (O&G) production facilities were becoming increasingly dependent on service providers to support their efforts to perform according to demands. When developing a performance-based service strategy, one needs to consider influencing factors and attributes: needs to measure service delivery process performance and the gaps between required and delivered services, and to periodically reassess the service strategy influencing factors (Kumar & Markeset, 2007). Peersman (2014) established that service performance involved parties should compete in the market and ought to be monitored if desired performance levels are to be achieved.

While some risks can be transferred to the contractor/sub-contractors in terms of financial pressure for not completing a project, the ultimate risk still lies with the operating organisation to deliver positive outcomes which limit exposure to liability (Limberakis, 2012). This makes the contract management critical and operators are expected to monitor service providers' performance with regards to safely and timely delivery of the service for success of the project (Limberakis, 2012). Monitoring provides a conduit through which the agreed-upon project outputs can be delivered with utmost precision and quality.

According to Mehta (2008), a project control system with the main function to monitor and control project objectives is deemed a failure if the system fails to aid in meeting overall project objectives of on time, and on budget. Perception, belief, and behavior, go hand in hand (Smith, 2001); for example, general contractors that fail to perceive and appreciate the consequences of poor change management are most likely to be unprepared. This type

of behavior may indicate failure to view projects in a holistic way, and could be an indication that they lack systems thinking approach to contract administration (Smith, 2001).

Middlehurst (2004) argued that even though most practitioners accept the view that change happens, the practice indicates that there is no alignment in the acceptance of this view and how practitioners prepare for change. Sanders et. al., (2007) stated that a look at the contract indicates if there is true preparation on what to do under various contract change conditions or issues. Sanders et. al., (2007) further pointed out that most contracts fail to indicate the contractual requirements that state what needs to be done when change happens, and this result in poor change management and resolution of issues. For example, a project could encounter a differing site condition, have defective and deficient contract documents, be suspended, encounter a labor strike, encounter a delay in delivery of owner furnished equipment, and experience adverse weather. Also, a key player could file for bankruptcy, the contract could be terminated, the key player may have superior knowledge and fail to share with others, and/or administer contract poorly (Nassuna, 2017). Any one of the above change conditions could fall under a directed change or constructive change or cardinal change.

When the contract does not spell out what needs to be done when a change condition is encountered, time and resources are wasted while waiting to reach an agreement on what needs to be done (Nassuna, 2017). A good review of the contract allows for the general contractor to identify missing requirements and address the issues with the owner for

earlier review and resolution before changes are encountered (Nassuna, 2017). Effective risk management is about being proactive instead of being reactive, because a proactive approach allows for monitoring and mitigation of risks (Kaliprasad, 2006). A study by Ibbs and Ashley (1987), demonstrated that the way a contract clause is written may have either a positive or negative impact on the overall project performance.

Some other measures that could be used to evaluate competency of contract administrators may relate to the ability to prepare cost proposals with correct markup, correct documentation, correct labor rates, correct equipment rates and correct production rates (Love et. al., 2012). Also, making sure that the project baseline schedule or update schedules are current, and approved for use in time impact analysis (TIA). A study by Griffith (2006) found that projects with well-defined and detailed schedules are correlated with successful performance in cost and schedule; this is because a well-defined schedule provides a basis to manage and control changes on a project. Other criteria for evaluating contract administrators' competency include maintenance of daily reports specific to each operation (Griffith, 2006). Portilla-Figueras et. al., (2010) pointed out that daily reports are important documentations to record construction operation as well as record changes when they occur. The importance of accurately representing and forecasting schedule activities based on analysis of past production (historical data) was examined in a study by Li et. al., (2005). The author found that without correct analysis, and consideration of the productivity, the schedule forecast will most likely be flawed. Contract administrators should be knowledgeable about different TIA methods and specifically of interest is the use and application of contemporaneous TIA (Griffith, 2006; Li et. al., 2005). The

contemporaneous TIA method evaluates the differences in project completion date by taking snapshots of the project before and after a major impact has occurred (Mohan & Al-Gahtani, 2006).

Past studies (Merkert & O'Fee, 2013; Kim & Brown, 2012) suggest that there exists a lack of contract design and accompanying systems design by public sector contract managers. For example, a study of thirty European air traffic authorities found that many do not adjust template contracts to their local context, preferring to rely on building trust with operators to overcome contract incompleteness (Merkert & O' Fee, 2013). In a study of three US Federal Agencies, short-term fixed price contracts were extended into longer-term contracts with little modification (Kim & Brown, 2012). There is also evidence of over-optimistic assumptions or inadequate approval systems that may undermine the contract regardless of its design; for example in two Australian public infrastructure projects, over-optimistic presentations to ensure the projects proceed were causal factors in cost and delivery over-runs (Love et. al., 2012).

There may also be deficiencies in the supporting system; in a study of catering procurement in three Welsh hospitals, the authors' recommendations to reduce food waste go beyond improving the criteria used in food supply contracts, and suggest the creation of training and feedback mechanisms that mobilize all the actors in the food chain (Sonnino & McWilliams, 2011). Also the public procurement management organisational structure may be complex with the responsibilities shared between individuals (Miller, 2005). It may prove difficult to control an agent operating in a public setting because multiple principals

mean the absence of a homogenous group monitoring the actions of the agent, or the high cost to the principal of implementing sanctions leave the agent at a low risk of punishment for poor performance (Miller, 2005). The design of public contracts and the organizational supports pose challenges that become evident during the *ex post* management stage. The above findings, however much relevant they were to this study, had contextual and conceptual gaps that were filled by this study.

Monitoring and evaluation is central to the project control process (Callistus & Clinton, 2018). Many times, actual progress do not match the planned progress making it essential to keep the management , client, engineer, and sponsor informed of the progress and the precise conditions that can effect each occurrence. So, depending upon the extent of variation between planned and actual, the management should initiate appropriate control actions (Kamau & Mohammed, 2015). Similar views are held by Aitken and Crawford (2007) who argues that most information is analyzed by variance that is, difference between planned and actual performance and it is the management which is will determine what is useful in analysing individual situation.

An effective contract administration programme is a risk management tool for both contractors and owners (Garrett, 2010). The objective of contract administration is to provide technical oversight and direction as required (Guidance, 2012); technical oversight and direction includes confirmation that work has been or is being performed in accordance with the specifications and provisions of the contract, and includes provision of appropriate levels of monitoring, inspection, and acceptance as prescribed in the contract.

Also, technical oversight and direction includes reviewing, approving, and monitoring payment for timeliness and accuracy, includes managing changes to the contract, and also includes documenting all actions taken with regard to the contract (Guidance, 2012).

Elsey (2007), emphasised that contractual arrangements may commit the organisation to its supplier(s) for some time and to varying degrees of dependency hence noting the importance of making the relationship work effectively by developing mutual trust and understanding, creating an open and constructive environment and contributing to the joint management of the contract delivery. Following the strategic decision to use an external service provider, there is a number of choices to be made, particularly relating to the best approach to manage the contract relationship and the one adopted must depend on the organization's business objectives, internal constraints and the willingness of staff to try alternative approaches (Elsey, 2007).

Research by Mturi (2013) that assessed the adequacy of skills for the key contract management (CM) staff, the extent of contract variation, and examined on time delivery of goods and services at the case organization, disclosed that there were problems of late deliveries, un-controlled variations to contracts and lack of effective professionalism. Mturi's (2013) study recommended use of early supplier/contractor involvement strategy in order to identify the expected problems and solve them before their impact; prompt payment of supplier invoices to encourage and motivate contractor or supplier; and lastly, CM staff attending continuous professional development at least 72 hours per year, among others. The above study did not consider the private sector and did not provide how

contract administration influences contractor performance and therefore, a gap which was discussed in this study.

Bautista and Ward (2009) recommend that the entire procurement team should also be engaged in managing the post award contracting activities. Contract administration processes and activities such as monitoring and measuring contractor performance, managing contract change process, and managing contractor payment process should be integrated with other departmental core processes such as customer service, financial management, risk management, schedule management, and performance management (Waterman & Knight, 2010). A centralised contract administration group should be embraced and instituted to create an enterprise-wide approach to effectively manage contract lifecycle (Nguyen, 2013). One of the strategic benefits of having an oriented contract administration group is its high level of comprehension and familiarity with contractual terms and conditions (T&Cs) and provisions laid out in all contracts being created and executed within the organization (Nguyen, 2013); and the team therefore can serve as a central point to manage all contracts and ensure appropriate oversight of contract commitments.

Essens et. al., (2005) identified team composition over time as an important determinant of team effectiveness; they argued that the longer the average time team members are together as a team, the higher their chance of being effective in meeting their objective. Since the day-to-day work of team members is interdependent, it means that their performance influences and affects each other, and the entrance or exit of a member may

affect knowledge transfer (Essens et. al., 2005). This illustrates that high employee turnover rate can be disruptive and may not allow for proper transfer of both tacit and implicit knowledge.

Contract administrators should be knowledgeable of the impact of change on cost and time, and how to estimate changes. For example, knowledge of "Measured Mile" and its use and application to change order pricing should be well understood by practitioners (Okada et. al., 2017). The need for contract administrators to have good knowledge in the principles of measured mile was captured by Portilla-Figueras (2010); the author noted that construction disputes could be avoided if practitioners understand the concept of measured mile and implement it appropriately. Measured mile is a change evaluation method for lost labour productivity, and compares an impacted item of work with an unimpacted similar item of work, where both have the same baseline conditions (Okada et. al., 2017). The aim is to identify contributing factors that are not found in the baseline conditions, and evaluate them for their economic impact on the project. Fínez (2008) used three main criteria to measure entrepreneur readiness towards a particular business idea, as in their level of competency, and completeness of their business plan which included attitude, aptitude, and capacity. The same concept can be used to evaluate contract administrators' competency. According to Fínez (2008), aptitude metrics include knowledge of sector, technical background and job experience, and attitude metrics include motivation, behavior and mentality, while capacity metrics include leadership, management and teamwork. Fínez (2008) mentioned that the importance of combining competency and a business plan is that one may have the competency in one business idea, but may be inadequate for another.

This leads to the conclusion that a well-structured contract administration system is needed to allow application of the right competences.

In managing risk associated with change to contract, a risk register that has been approved by management should be contemporaneously updated to reflect current conditions (Oloo, 2011). According to Kaliprasad (2006), risks are analysed and managed differently as they move from uncertainty to certainty, which is when they become an issue. An issue is an event that is certain to occur or may have already occurred (Kaliprasad, 2006). Good risk management measures will indicate if subcontractors are prompt at sending notification of change and pricing of change orders and also, if a general contractor is prompt at processing and requesting payment for actual work completed on executed change orders (Callistus & Clinton, 2018). According to Bajari and Tadelis (1999), all contracts spell out payment provisions, yet many general contractors fail to comply with these provisions and end up not being paid on time. Other factors to assess knowledge of contract administrators include: if the general contractor is prompt at meeting timely notification of changes, and notice of change is sent to the owner as soon as the general contractor has knowledge of an issue (Callistus & Clinton, 2018). In practice, the duty to notify is the responsibility of the general contractor, and this is a very important aspect of change management. The objective is to allow the owner to mitigate the risk as soon as the owner is aware (Miller, 2005).

Additionally, more rigorous monitoring efforts are necessary since they can help mitigate contractor's opportunism by increasing the chances such behavior will be detected

(Witesman & Fernandez, 2013). Among a variety of monitoring methods, as Rehfuss (1989) noted, perhaps the best-known type of monitoring tools, known as *arms-length*, in the field of contract management include, for example, self-reports by contractors (such as monthly or quarterly reports, financial documentation of cost), periodic inspections (e.g., field observation and audits), and performance standards. In addition to typical internal administrative monitoring methods (contractor self-reporting and direct government inspections), contracting organizations may employ external monitoring methods based on the viewpoints of diverse stakeholder (third-party monitoring), such as community or beneficiary feedback based on complaints, media, ombudsman policy, and additional independent audits, for effectively assessing contracted service delivery (Amirkhanyan, 2011).

2.4 Framework for closing gaps within the Procurement Process

The study aimed at proposing a framework for improving and streamlining of the procurement processes in local governments. The motivation builds on past observations and recommendations made by scholars (such as Dalcher, 2012) that a project management framework is key in increasing organisational value. However, while any efforts are taken to development a project management framework that aims at improving the performance of the project procurement processes, the organisation in question can benefit from using project management framework by increasing the effectiveness of the human effort in the organization. With the use of a framework, project success is measured by its efficiency in the short term and its effectiveness in achieving the expected results in the medium and the long term (Jugdev et. al., 2001; Müller & Jugdev, 2012). Project investment success needs a system thinking mind-set to understand and to manage the internal and the external

environment (Zwikael, 2009). For instance, Cserháti and Szabó (2014) have found that relational oriented success factors such as communication, co-operation and leadership are more critical than are task-oriented success factors. The framework developed in this study fronts all the above key aspects of project investment success.

According to Golini et. al., (2015) project management (PM) tools (such as critical path method and Gantt chart) are used to achieve project management success are different from those needed for project investment success because they are more closely related to stakeholder management such as the stakeholder matrix and responsibility assignment matrix. For each aspect of project success (management and investment), measures should be established to define the success criteria (Müller & Turner, 2007). Also, benefits should be owned and assigned to a certain person or department, made responsible for realising them (Winch & Leiringer, 2015; Chih & Zwikael, 2015). Indeed, without an owner, the benefit will never accrue because nobody will be interested in using the project output to capturing the benefits (Peppard, 2007). In this study, the suggested framework draws emphasis on exchange of information and provision of feedback among the parties involved in the process of procurement and management of contracted activities.

2.5 Chapter Summary

The literature reviewed shows that there is a strong relationship between procurement processes and performance of construction contracts. The review indicated that planning, contractor selection, and budgeting significantly affect performance of construction works. However, most of the works cited are from foreign environments and not Uganda hence

leaving contextual gaps. Equally, some of the studies reviewed took a qualitative strand in their investigations. They left a methodological gap that was bridged using the case of local government procurement processes in Sheema District. The key issues addressed by the scholarly works reviewed are summarised in Table 2.1

Table 2. 1: Summary of Literature Reviewed

Variable	Key Dimension of the variable	Author(s)
Procurement Planning	Goal definition	Robbins, 2001.
	Choice of procurement methods	Nassuna, 2017; Lynch, 2013.
	Delivery schedules	Kuuse, 2014.
	Choice of contractors	Ochari, 2013; Pilcher, 2012.
	Measurement metrics	Sabiiti et. al., 2013.
	Internal controls	Cavalho et. al., 2010; Savuth, 2012.
	Risk mitigation	Hutton, 2003; Nassuna, 2017.
Contract Monitoring and Administration	Continuous capacity development	CIPS, 2013
	Risk Management	Fewings,2013; Mentis, 2015; Denin,2009; Abubakar et. al., 2017; Garret, 2010; Guidance, 2012; Oloo, 2011.
	Dispute resolution	Elcin, 2012; Stone, 2012.
	Performance evaluation	Lysons & Farrington, 2006; Jia &Zhao, 2017.
	Key Performance Indicators (KPIs)	Bredon, 2013; Jonsson & Rudberg, 2017; Badawy et. al., 2016.
	Follow ups	Sanders et. al., 2007; Nguyen, 2013; Waterman & Knight, 2010.
	Blanket controls	Kamau & Johnson, 2015; Callistus & Clinton, 2018.
	Mitigation of Opportunism	Witesman & Fernandez, 2013; Amirkhanyan, 2011.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter covers the research design, study population, sample size and selection, sampling techniques and procedures, data collection methods and instruments, validity and reliability and data analysis.

3.2 Research design

A research design is a set of procedures for collecting, analysing, interpreting and reporting data in research studies (Ivankova et. al., 2007). It is the overall plan for connecting the conceptual research problems with the pertinent (and achievable) empirical research (Odiya, 2009). In other words, the research design sets the procedure on the required data, the methods to be applied to collect and analyze this data, and how all of this is going to answer the research questions (Bryman & Bell, 2011). The study adopted descriptive survey design. Mugenda (1999) noted that descriptive survey design is a self-report study which requires the collection of quantifiable information from the sample. Mugenda and Mugenda (2003) further pointed out that descriptive survey design is easy to manage and administer. The design enables the study to quickly collect data from an extensive area and to understand the entire population from a sample (Kothari, 2003).

3.3 Research approach

3.3.1 Quantitative research

Aliaga and Gunderson (2000), describe quantitative study as a research approach explaining a phenomenon by collecting numerical data that are analysed using statistical approaches. It is an approach in which the investigator employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical data (Creswell et. al., 2003). The greatest strength associated with quantitative research is that its methods produce reliable and quantifiable data that can potentially be generalized to a large population (Marshall, 1996). In addition, it is suitable to test and validate already constructed theories about how and why phenomena occur through testing hypotheses that are constructed before the data are collected.

3.3.2 Qualitative research

Qualitative researches are designed to provide the researcher with a means of understanding a phenomenon by observing or interacting with the participants of the study (Denzin & Lincoln, 2008). Therefore, qualitative researchers are interested in exploring and/or explaining phenomenon as they occur in the natural setting. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Newman & Benz, 1998). One of the greatest strengths of qualitative methods is that they have the potential to

generate rich descriptions of the participants' thought processes and tend to focus on reasons "why" a phenomenon has occurred (Creswell et. al., 2003).

The research used quantitative approach which focused on numerical variables related to the study. Quantitative approach involved the use of questionnaire to capture responses that can potentially be generalized to a large population.

3.4 Study population

Keyton (2011) described a population as "all units, or the universe; - people or things-possessing the attributes or characteristics in which the researcher is interested". Wiid and Diggines (2013) define a population as the total group of people or entities (social artefacts) from whom information is required. The study population constituted of 15 Bidders/pre-qualified contractors for Sheema District Local Government for the period of 4 years (that is from 2015 to 2019), 5 members of contracts committee, 20 technical planning committee members, 5 district executive committee members, 10 district management committee members, 25 evaluation committee members that were purposively selected from within Sheema District Local Government staff. From this population, the researcher selected a representative sample that was determined using Krejcie and Morgan (1970) statistically calculated table for sample size selection.

Table 3. 1: Target population categories and sample size

Category	N	S	Sampling technique
Pre-qualified contractors since 2014-2018	15	14	Simple random
Contracts committee	5	5	Purposive
Technical planning committee	26	24	Simple random
District executive committee	5	5	Purposive
District management committee	10	10	Purposive
Evaluation committee members	25	23	Simple random
TOTAL	86	81	

Source: *Sheema DLG Administrative Manual (2016) Key N=population, S=Sample*

The research used both simple random sampling and purposive sampling techniques to come up with the sample. Simple random sampling using lottery method was used to select the respondents from prequalified contractors, technical planning committee and evaluation committee. Paper tags marked Y (for Yes) and N (for No) were used. The names of all the members from each of the three categories were written on the papers marked Y and N. They were put in a box and joggled. The members were made to pick a paper tag at random without replacement. Those who picked Y tags were taken up for the study while those with N were left out.

Purposive or census sampling was applied for the rest of the groups since according to Krejcie and Morgan (1970), their numbers were 10 and below implying that all had to be selected to participate in the study. This selection tallies with the suggestions of Odiya (2009) that where a sample of targeted participants is 10 or less, all should be involved in the study for the purposes of obtaining the key information they possess.

3.5.1 Simple random sampling

The simple random sampling technique involves every case of the population has an equal probability of inclusion in sample. This type of sampling gives all the targeted respondents equal chances of participating in the study and thus weeds a way bias (Ghauri & Gronhaug, 2005). A researcher through the use of this method can ably select a sample using a table of random numbers (Odiya, 2009; Katebire, 2007) or use the lottery technique or method of selecting the required sample from the entire population (Kothari & Garg, 2014).

3.5.2 Purposive sampling

The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses. It is a nonrandom technique that does not need underlying theories or a set number of participants. The researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Patton, 2002). It is typically used in qualitative research to identify and select the information-rich cases for the most proper utilization of available resources (Walliman, 2011). This involves identification and selection of individuals or groups of individuals that are and well-informed with a phenomenon of interest (Cresswell & Clark, 2011).

3.6 Description of study area

Sheema District is bordered by Buhweju District to the north, Mbarara District to the east, Ntungamo District to the south, Mitooma District to the southwest and Bushenyi District to

the west. It has three constituencies that is Sheema North, Sheema municipality and Sheema south. The district has 9 Sub-counties and 5 Town Councils with total population is 207,343 of which 99,225 are male and 108,118 are female (UBoS, 2015).

3.7 Data sources

3.7.1 Primary data sources

Primary data was gathered by using quantitative data collection method. Survey questionnaire method was used for the pre-qualified contractors, contracts committee, technical planning committee, district executive committee, district management committee and evaluation committee.

3.7.2 Secondary data sources

The researcher got secondary information from PPDA reports (2012, 2014 and 2017), Project files, contract register-Sheema district and other information that is related to the topic of the study. The projects documents assessed specifically for Sheema DLG were those implemented between 2015 and 2019. The key metrics assessed were: time, cost and quality of the deliverables, given that the three components constitute what project planning activities, and contract monitoring and administration are expected to streamline for purposes of achieving quality service delivery.

3.8 Data collection methods

3.8.1. Survey Questionnaire

A survey questionnaire was used to collect data from all categories of respondents. According to Zohrabi (2013), questionnaires are categorised into seven basic question types. These are quantity or information, category, list or multiple choice, scale, ranking, complex grid or table, and open-ended. Generally, a questionnaire might make use of one or several types of these question forms. In this study, the questionnaire used contained only close ended questions. According to Zohrabi (2013), inclusion of close-ended questionnaires enables the researcher to come up with quantitative or numerical data. Given the busy schedules and complexity of the work done by the different categories of respondents, the questionnaire was researcher administered himself. The questionnaire was selected for this study because it provides one of the efficient means of collecting data on a large-scale basis and the respondents' anonymity made them to share information more easily. In addition, through the use of questionnaire method, quite similar questions were administered simultaneously to a large number of subjects which enabled the researcher to acquire data that were more identical, correct and standard. Questionnaires also provided a time-efficient way of collecting data from many people. Also, the data collected using closed-ended questionnaires was easy to code and analyze. In this study, questionnaire survey was used as the main data collection method. Therefore, the main data collection tool was a questionnaire.

3.8.2 Interviewing

Interviews are primarily done in qualitative research and occur when researchers ask one or more participants general, open-ended questions and record their answers. Often audiotapes are utilized to allow for more consistent transcription (Creswell, 2012). The researcher often transcribes and types the data into a computer file, in order to analyze it after interviewing. Interviews are particularly useful for uncovering the story behind a participant's experiences and pursuing in-depth information around a topic. Usually open-ended questions are asked during interviews with the hope of obtaining impartial answers as opposed to closed ended questions which often force participants to answer in a particular way (Creswell, 2012).

3.9 Data collection instruments

Amin (2005) pointed out the usefulness of questionnaires in terms of their simplicity, time used and easiness for a researcher to administer. The questionnaires were self-administered to Pre-qualified contractors, contracts committee, technical planning committee, district executive committee, district management committee and evaluation committee in Sheema District Local Government.

The researcher designed a set of questions and produced questionnaires basing on the objectives of the study and research questions in chapter one. The questions were close ended. Close ended questions were included in order to increase on response rate. Section A covered background information of the respondents; Section B covered dependent variable (Performance of construction contracts) while section C covered the Independent

variables (Procurement processes). The five-point Likert scale ranging from strongly agree (5) to strongly disagree (1) was used because it assesses the strength of respondents' feelings or attitude towards a subject. The questionnaire was selected as the main data collection tool because it is cheap to administer and covers a wide geographical area; it provides a hard copy that was filed for reference purposes. The questionnaire was equally used because the information had to be collected from a large sample in a short period of time (Amin, 2005; Katebire, 2007; Odiya, 2009; Sekaran, 2003).

3.10 Pre-testing

3.10.1 Validity

Validity refers to the appropriateness of the instrument in collecting the data that is supposed to be collected, while reliability refers to its consistency in measuring whatever it is intended to measure (Amin 2005). Drost (2011) defines validity as the meaningfulness of research components. Validity takes different forms. It may be criterion, face, internal, content or construct. In this study, both content and face validity were ensured. To determine the validity of instruments, the researcher tested validity of the instruments by piloting them in Mitooma district. Furthermore, the instruments were given to two experts (supervisors) to evaluate the relevance of each item in the instrument to the objectives. In this study, both content and face validity were ensured.

Content validity

Content validity is the qualitative type of validity where the domain of the concept is made clear and the analyst judges whether the measures fully represent the domain (Drost, 2011). Content validity required the researcher to not only provide a theoretical definition

(of the concept) accepted by his/her peers but also to select indicators that thoroughly covered its domain and dimensions. Content validity index (CVI) was computed using equation 3.1 (Odiya, 2009).

$$CVI = \frac{\text{Number of Questions judged relevant}}{\text{Total number of questions judged}} \dots\dots\dots \text{Equation (3.1)}$$

According to Odiya (2009), the closer to 1 of the CVI, the more valid is the section of the research instrument or the entire instrument. The following results were obtained:

Table 3. 2: Validity analysis

Variable	Number of items	Number of valid items	CVI
Contract monitoring and Administration	20	19	0.950
Performance of construction contracts	15	14	0.933
Procurement planning	20	18	0.900
Average			0.928

The average CVI was 0.928 which is close to 1; which by implication meant that the questionnaire items were valid and thus capable of giving rise to quality data.

Face validity

Face validity of the instruments was established by submitting the data collection instruments to the supervisors and subject matter experts on archives management. The choice to establish face validity was to ensure that the phraseology of the questions was well structured as well as ensuring that jargons and rubric were eliminated from the tool.

3.10.2 Reliability

Joppe (2001) defines reliability as the extent to which results are consistent over time, and are accurate representation of the total population under study. According to Koonin

(2014), reliability is the credibility or consistency of a research instrument. A reliable research instrument enables a researcher to generalize the results. Generalization is important in a way that it enables a researcher to find universal laws that are applicable in all circumstances (Koonin, 2014). Stenbacka (2001) postulated that reliability as ‘purpose of explaining’ in quantitative approach and ‘generating understanding’ in qualitative approach to research. If the results of a study can be reproduced under a similar methodology, then the instrument is considered to be reliable.

The researcher ensured that the instruments minimize random error and hence increase the reliability of the data collected. In order to measure reliability, a score obtained in one item was correlated with scores obtained from other items in the instrument. To test for the internal consistencies of the questionnaire items used to measure the variables, Cronbach alpha values were computed in Statistical Package for Social Sciences (SPSS). The following results were obtained;

Table 3. 3: Reliability analysis

Variables	Cronbach Alpha coefficient
Contract monitoring and administration	0.934
Performance of construction contracts	0.972
Procurement planning	0.989
Average	0.965

Source: *SPSS Reliability Analysis*

As shown in Table 3.3, the questionnaire items yielded higher average alpha values of 0.965. This is higher than the 0.6 threshold proposed by Nunnally (1967) and Odiya (2009) implying that the questionnaire was reliable. The chances are high that when administered

in a context or setting with more or less the same conditions and to respondents with similar characteristics, the chances are so high that the results would be more or less the same.

3.11 Data analysis plan

The filled questionnaires were collected, checked for accuracy, consistency and completeness before leaving the field. Row data were entered into Statistical Package for Social Sciences (SPSS-version 25) and analyzed statistically. Two levels of analysis were conducted namely; Univariate analysis in form of descriptive statistics in form of frequencies, percentages and mean. To provide a holistic overview of the significance of each of the variables, Relative Importance Index (RII) was computed using equation (3.2) as suggested by Gunduz et. al.,(2012)

$$RII = \frac{\sum W}{A \times N} \dots \dots \dots \text{Equation (3.2)}$$

where;

W= weighting given to each factor by the respondents (ranging from 1 to 5),

A = highest weight (in this case, 5),

N = total number of respondents.

Variables with higher RII were considered to be major loopholes in both procurement planning and contract monitoring/administration while under performance of the construction projects, the higher RIIs were indicative of the poor performance of the construction contracts in terms of improved quality, timeliness, cost effectiveness and beneficiary satisfaction.

Multivariate analysis employed simple linear regression to test the following hypotheses;

H₀₁ There is no relationship between Procurement planning and performance of construction contracts

H₁ There is a significant relationship between procurement planning and performance of construction contracts

H₀₂ There is no relationship between contract monitoring/administration and performance of construction contracts

H₂ There is a significant relationship between contract monitoring and administration and performance of construction contracts

The following multiple linear regressions was used as suggested by Odiya, (2009)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \dots \dots \dots \text{Equation (3.3)}$$

Where:

Y = performance of construction contracts β_0 = Constant, X_1 = procurement planning

X_2 = contract monitoring and administration and ε = error term

$\beta_1, \beta_2,$ = Model coefficients that significantly influence on the model.

The regression test statistic and p-values were computed at 0.05 level of confidence. The calculated p-values were compared with the selected level of significance. Where calculated p-values fell below 0.05 levels, the null hypotheses were rejected and alternative hypotheses adopted.

3.12 Data analysis

After the process of data collection, data was entered and analyzed using SPSS version 25.

In order to understand the demographics of the respondents, descriptive statistics namely

frequency and percentages were calculated, reported and presented in Table 4.1.of chapter four.

To analyze objectives 1 and 2, data were ran using descriptive statistics to find mean and standard deviation. Descriptive statistics were opted for because thee enable a researcher to give a concise interpretation of the findings hence eliminating unnecessary repetitions. The results are presented in Tables 4.2 to 4.5. A simple linear regression was ran is SPSS to determine the relationship between procurement planning, contract monitoring and administration, and performance of construction contracts. Regression analysis was computed because the coefficients obtained enable the researcher to establish the exact magnitude by which the dependent varies as a result of unit change in the independent variable.

Objective 3 which sought to develop a framework for closing the gaps within the procurement process to improve performance of construction contracts was analyzed with a logical diagram that described the parties and the roles and responsibilities of the current parties in the system. This was followed by identifying the existing loopholes and proposing suggestions that are capable of producing a transformative impact in the current mishaps in the procurement system (see Figure 4.1)

3.13 Measurement of Variables

The variables were measured using a 5-point Likert scale whereby response statements were categorized on a scale of 1-5 where: (1) strongly disagree, (2) disagree, (3) not sure (4) Agree and (5) strongly agree.

3.14 Ethical Considerations

Ethics are a matter of integrity on a personal level, but their implications reach further than the individual (Plooy-Cilliers et. al., 2014). A researcher who acts with integrity adheres to ethical principles and professional standards that are essential for practicing research in a responsible way. The researcher also secured a letter of introduction from Kyambogo University which provided appropriate identification in addition to spelling the purpose of the research. Also, in order for the respondent not to suffer the effects of the research activities, the research ensured confidentiality by encouraging them to participate willingly. The respondents were also notified about the purpose of the study before their choice to take part. In addition, all the academic and scholarly work of other scholars that was used in building this study were fully acknowledged and reference made thereof in order to avoid plagiarism.

3.15 Chapter Summary

The chapter has provided a through description of the methodology that guided the entire study. The research design used, population targeted, sample size selected, methods used to select the sample, data collection methods and instruments, data quality control in which validity and reliability were ascertained, and data analysis plan, among others are all

described and contextualized to the study. In the following chapter, the results of the study are presented, analyzed and discussed. The discussion of the findings is made in line with scholarly works reviewed in order to show the credibility of the study and to situate the findings in the parlance of scholarship on procurement processes and performance of construction contracts in particular and entire contracted projects in general.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

In this chapter, the researcher presents, analyses and in interprets the results of the study. The data presented includes response rate, background information of the respondents and a presentation of findings against each individual objective of the study. The data are analysed and presented based on the response to the items in the questionnaires. The researcher used frequency tables, percentages, mean and standard deviation to present data. Charts are also used while narrative text is used for presentation and analysis of the obtained secondary data as well as interview responses.

4.2 Response rate

As an indicator of the comprehensiveness and rigour of study findings, a researcher should check the response rate (Odiya, 2009). Response rate (RR) is the ratio of the number of usable questionnaires to those sent out. Morton, Bandara, Robinson and Carr (2012) defined response rate as the total number of participants who were interviewed divided by the total number who were eligible. In a related way, response rate is defined as the total number of completed interviews divided by the total number of participants with whom contact was made (or the number of all possible who were interviewed). Response rate is an important factor in determining the quality of the study (Krishnan & Poulouse, 2016). The response rate for this study is indicated in Table 4.1;

Table 4. 1: Response rate by category of respondents

Category	Number targeted	Actual number participated	Response rate (%)
Pre-qualified Contractors since 2014-2019	15	14	100
Contracts Committee	5	5	100
Technical Planning Committee	26	24	77
District Executive Committee	5	5	100
District Management Committee	10	10	100
Evaluation Committee Members	25	23	87
Overall Average Response Rate	86	81	94

Source: *Primary Data*

4.2.1 Overall Response Rate

Table 4.1 shows that the overall response rate was quite high at 94%. The high response rate suggests that the majority of the respondents were interested in the study. In addition, this implies that the study findings represent views and opinions of a large number of the targeted respondents are representative of the views of the targeted respondents, and can therefore, be based on to draw generalisations on the scope and status on the procurement processes in the local governments and how this has influenced the performance of construction contracts. This inference is supported by the observations of Morton et. al., (2012) that studies with higher response rate, say at 70% of the sample, are often more accurate than those with much lower response rates, say 50%. Krishnan and Poulouse (2016) also observed that high response rates indicate larger data samples and higher statistical power, leading to a greater probability that the sample is representative of a population. This improves acceptance and credibility of the research findings amongst key stakeholders. A higher response rate was therefore an indicator that the participants in the

study were interested in the study hence providing a possibility that the findings generated are representative of their objective opinions.

4.3 Background characteristics of the respondents

The researcher sought to obtain data on selected characteristics of the respondents which included sex, age, highest academic qualifications and working experience. This section presents a summary of the study findings about the sex, age, education and the working experience of the respondents.

4.3.1 Gender of respondents

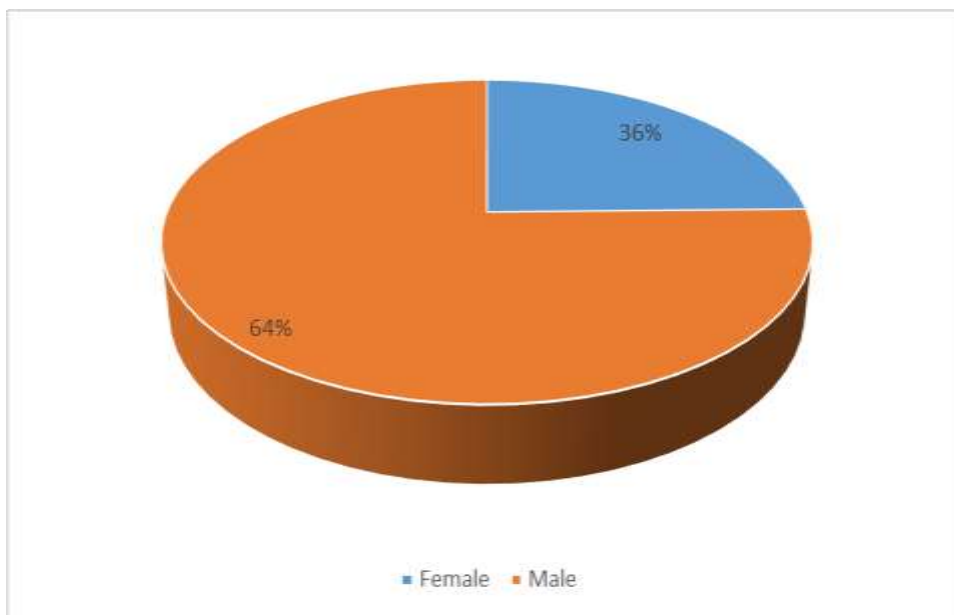


Figure 4. 1: Gender of respondents

Figure 4.1 above indicates that males were 52(64%) and females, 29(36%). This implies that more males participated in procurement activities as compared to females. There was a domination of male respondents over the females. This study finding implies that the study

results reflect the views of both categories of gender though males were more likely to contribute the responses because of their higher numbers and more involvement in the making of decisions pertaining to procurement processes in the Sheema DLG.

4.3.2 Age groups of the Respondents

Table 4. 2: Description of Respondents by Age group

Age Group	Frequency	Percentage
18-30	9	11
31-49	63	78
50 and above	9	11
Total	81	100

Table 4.2 above indicates that 9 (11%) of the respondents belonged to the 18-30 age bracket, 54 (78%) to 31-49 bracket while 9 (11%) were aged 50 years above; thus, majority being between 31 and 49 years of age. The collection of data from the different age groups intended to establish whether the perception about the procurement processes and the performance of contracted constructions varied between different age groups. This study finding implies that the study was comprehensive since it covered a cross section of different age brackets. The age bracket of 31-49 years offers greater potential for achievement of higher levels of project performance as it comprised majorly of the respondents from both categories (staff and key informants). The majority of the respondents in the 40-49 age bracket reflected that in Sheema DLG, the possibility of achieving better project results was higher, as long as other key procurement processes are addressed. This is largely so because the age bracket of 31-49 provides a cadre of

management staff that have rich experience in management and might thus easily formulate and implement result oriented policies and strategies.

4.3.3 Level of Education of the Respondents

Table 4.3 indicates that the respondents with certificate level qualifications and lower were 5 (6%), diploma holders were 16 (20%), degree holders were 53 (65%), master's respondents were 7 (9%). All the respondents were able to read and write and able to fill the questionnaire on their own. The high level of education among the respondents was largely because the positions they held had formal training requirements beyond primary school level as a minimum standard. The different levels of academic qualifications indicated a mixed category of respondents who participated in providing data for this study. By implication, the study findings are informative largely because they captured the views of the respondents from different academic calibres.

Table 4. 3: Description of respondents by level of education

Level of Education	Frequency	Percentage
Certificate	5	6
Diploma	16	20
Degree	53	65
Masters	7	9
Total	81	100

4.3.4 Working Experience of the Respondents

The respondents were asked to indicate the number of years they have worked in their capacities and designations. The results obtained are presented in Table 4.4 below;

Table 4.4: Working Experience

Responses	Frequency	Percent
Less than 1 year	7	9
1 - 3 years	9	11
4 - 6 years	15	19
7 - 9 years	36	44
10 years and above	14	17
Total	81	100

Source: Primary Data (2019)

Table 4.4 above shows that majority of the respondents, 80% (19%+44%+17%) had served for more than 4 years. This finding implies that majority of the respondents had experience on the procurement processes and performance of the contracted construction projects. The findings of the study therefore are credible since they captured the experience levels of the respondents. These had the capacity to compare and contrast between what is existing today and what the situation was in the past.

4.4. Effect of Procurement Planning on the Performance of Construction Contracts

The study set out to determine how procurement planning affected performance of construction contracts in Sheema DLG. The following section presents and interprets the opinions of the respondents on performance of the construction contracts and the opinions of the respondents on procurement planning. The mean is used in the analysis and interpretation of the findings in order to give a clear description of the position of the respondents on the statements measuring each of the dimensions under each variable. The Relative Importance Index (RII) is included in order to show the extent to which the selected aspects measuring procurement planning were attended to by the management of

Sheema DLG. The successive sub-section on contract monitoring and administration follows the same interpretation.

4.4.1 Descriptive Statistics on Performance of Construction Contracts

The respondents were asked to indicate their opinion on the main statements that measured performance of construction contracts in Sheema DLG. The results obtained are presented in Table 4.5 below;

Table 4.5: Descriptive statistics on performance of Construction contracts

S/No.	Performance of construction contracts aspects	Mean	Std. Dev	RII	Ranking
1.	Sheema DLG construction contracts are usually completed at minimum possible cost	2.44	1.38	0.489	1 st
2.	Sheema DLG construction contracts usually meet the District's contractual scope	2.39	1.38	0.479	2 nd
3	Sheema DLG construction contracts are usually completed on time	2.32	1.34	0.464	3 rd
4	Sheema DLG construction contracts usually register a high level of beneficiary satisfaction with the projects in the communities	2.09	1.30	0.420	4 th
5	Sheema DLG construction contracts usually produce quality deliverables all the time.	1.56	1.21	0.314	5 th

Std. Dev- Standard Deviation; RII- Relative Importance Index

Key for Interpreting Mean Values: 1.00-2.49= Disagreed; 2.5- 3.49= Undecided, 3.5- 5.00=Agreed

Construction contracts performance in Sheema DLG was assessed using five questions as shown in Table 4.5 above. The majority of the respondents disagreed that construction contracts were usually completed under the budgeted costs and at the best minimum (Mean=2.44, Std. Dev=1.38). Table 4.5 also indicates that majority of the respondents

disagreed that construction contracts in Sheema DLG met the organization's contractual scope (Mean=2.39, Std. Dev=1.38). Further, Table 4.5 indicates that majority respondents disagreed that construction contracts in Sheema DLG were usually completed on time (Mean=2.32, Std. Dev=1.46). The study findings were corroborated by the secondary data accessed from the projects implemented in Sheema DLG between 2015 and 2019 in which it was established that most projects had time overruns of several months, others with high cost overruns while some in both Financial Years studied (2015/2016-2018/2019) had both cost and time overruns (See Appendix 3).

The cost overruns and delayed completion of projects were symptoms of poor performance construction contracts in Sheema DLG. The study findings are amplified by Cunningham (2015) who established that cost and schedule performance are the primary measures of a project's success. The findings are also supported by Azhar et. al., (2014) that a contracted project is successful if it is completed within the planned cost and time. Azhar et. al., (2014) further noted that the accuracy of cost estimates starting from the planning phase of a project through to the tender estimate can affect the success or failure of a construction project. In terms of timeliness, Azhar et. al., (2014) suggested that management of time is effectively done through the use of contract schedule that indicates activities and their completion date and therefore, the use of a schedule allows an organisation to identify any slippage or failure to timely completion. The schedule should be developed basing on reasonable understanding of what is involved and how long it will realistically take. In case activities are not completed on the desired completion date, reasons behind should be established.

Table 4.5 equally indicates that majority respondents disagreed that Sheema DLG always registered a higher level of beneficiary satisfaction with the construction contracts (Mean=2.09, Std. Dev =1.37) and equally disagreed that the construction contracts equally produced quality deliverables all the time (Mean=1.56; Std. Dev=1.21). Failure to meet the contractual scope of Sheema DLG by the contractors meant that quality was compromised. The implication of this finding is that there appears to be no quality plan. The findings of the study are in consonance with those of Bhonde and Shaik (2015) that in order to manage quality, there must be a quality plan is key because the plan spells out how the quality performance and objectives will be achieved. Further, Bhonde and Shaik (2015) observed that in the case of construction projects, the quality plan specifically provides details on how the quality function is organized, who are the responsible individuals, and the quality control checks (e.g., inspection and testing). This is probably lacking in Sheema DLG which by implication meant that there was less than optimal performance which compromised the levels of beneficiary satisfaction. These study findings meant that much as the respondents agreed that the construction contracts in Sheema DLG benefitted a wide scope of beneficiaries, the key components used in assessing the performance of these projects were performing poorly.

From the reports reviewed, a number of projects were completed only after extension of contract by the Contracts Committee. For example in the financial year 2015/2016, contract Code 001 which was supposed to be completed within three (3) months was extended by 2 months and completed after 5 months leading to a time over run. Besides the time overrun, there was a also a high cost overrun of UGX 10.5 Million (see Appendix 3).

In the Financial Year 2016/2017, it was also established that contract code 0018 estimated to be completed in 6 months was completed in 10 months leading to an overrun of 4 months. Besides, the project had a very high cost overrun of UGX 221 Million (see Appendix 3). The time and cost overrun twin bedfellows have continued to be a common challenge in the procurement function. Even in the Financial Year 2017/2018, a project with contract code 0052 had a cost overrun of UGX 44.7 Million and a time overrun of 3 months. In 2018/2019, Project contract code 0076 had a cost overrun of UGX 74.7 Million and a time overrun of 5 months. The above case examples were escalated by poor project planning, and deficient contract monitoring and administration by the technical and political staff of Sheema DLG. Consequently, the quality of the project outcomes was greatly undermined leading to poor service delivery.

4.4.2 Descriptive statistics on procurement planning

Opinion was sought from the respondents regarding procurement planning activities and how these were handled in Sheema DLG. The results obtained are presented in Table 4.6 below;

Table 4.6: Description of aspects of procurement planning

S/No	Procurement planning aspects	Mean	Std. Dev	RII	Ranking
1.	Contingency plans are developed to handle contractor's failure and exit by management.	2.35	1.57	0.538	1 st
2.	Sheema DLG prepares procurement compliance checklists for construction contracts	2.29	1.37	0.523	2 nd
3.	Procurement planning meetings involve all stakeholders.	2.19	1.51	0.506	3 rd
4.	Sheema DLG always develops Key Performance Indicators (KPIs) for every construction contracted	2.15	1.38	0.479	4 th
5.	Sheema DLG prepares ToRs and SoWs in time	2.12	1.46	0.417	5 th
6.	Both operational and management controls are put in place to control the effective and efficient performance of construction contracts.	2.08	1.36	0.385	6 th

*SoW-Statement of Works; ToRs- Terms of Reference; KPIs- Key Performance Indicators; Std. Dev- Standard Deviation; RII- Relative Importance Index
Key for Interpreting Mean Values: 1.00-2.49= Disagreed; 2.5- 3.49= Undecided, 3.5- 5.00=Agreed*

Table 4.6 indicates that majority of the respondents disagreed that management had formulated a contingency plan to handle crises (Mean=2.35, Std. Dev=1.57). Contingency planning is a necessary component of the overall contract planning and administration that is often overlooked by agencies (Nassuna, 2017); it addresses how the agency would respond in the event of an interruption of service delivery and allows the programme or service to be quickly resumed (Nassuna, 2017). In Sheema DLG, the respondents disagreed that there existed a contingency plan for handling crises arising from contracted projects. This affected the quality of the construction projects.

Table 4.6 also indicates that most respondents (Mean=2.29, Std. Dev=1.37), disagreed that Sheema DLG prepared compliance checklists for construction contracts most of the time and yet these are critical. Due to the volume, number and complexity of the transactions involved, procurement is one of the government activities most vulnerable to corruption (Comito, 2016). Supplementing the findings of the study, the views of Comito (2016) establish that the availability of procurement compliance checklists in a government entity such as Sheema DLG is an important element of corruption risk management strategies in procurement processes, both in terms of prevention and detection of fraud and corruption as they guide procurement staff through the process of transparent and effective procurement and in the detection and reporting of irregularities. In this line of argument, the management of Sheema DLG would realise the set performance goals of the construction contracts if they prepare compliance checklists for the contracted projects if they are to achieve the anticipated project results. Further, the district can realise improved levels of construction project performance if the compliance checklists are structured around the major phases of the procurement cycle and typically covering the various risks associated with each phase of the contracting process.

On whether all stakeholders were involved in procurement planning in Sheema DLG, Table 4.6 further indicates that the majority of the respondents disagreed (Mean=2.19, Std. Dev=1.66). Key stakeholders in construction projects include customers, subcontractors, suppliers and the government are also stakeholders sometimes. The project manager, project team members, and the managers from other departments in the organisation are stakeholders as well. Through informal conversations with the respondents, it was

established that some of these stakeholders have often been left out of procurement planning meetings at the district. This has dealt a major blow to construction contracts as important ideas and deliberations that would have been made by these stakeholders from different departments are missed. In addition, involving at a later stage especially during the process of monitoring and evaluation does not yield any tangible results as such persons were not part and parcel of the crew that formulated the monitoring and evaluation metrics used. Their representation does not provide any substantial contribution to the reports produced.

Table 4.6 also shows that majority of the respondents (Mean=2.15, Std. Dev=1.38) disagreed that Sheema DLG prepared Key Performance Indicators (KPI) for every construction project contracted. According to Guerra-Lopez and Hicks (2015), in order to realise the construction project goal, KPIs are supposed to be prepared by the contracting organization or institution according to milestones and accountabilities set in the procurement plan. KPIs are critical for the successful implementation of project activities because keep the project objectives at the forefront of decision making (Kusek & Rist, 2004).

The study findings in Table 4.6 show that all the respondents disagreed to the statements on procurement planning activities in Sheema DLG implying that procurement planning activities were not favorable largely because most respondents disagreed while others were undecided. It is shown in Table 4.6 that the respondents disagreed that all the necessary pre-contract documentation are always prepared in time (Mean=2.12, Std. Dev=1.46).

Among the documents investigated by the study were: Terms of reference (ToR) and Statement of Work (SoW).

According to Locatelli et. al., (2017), the ToR is important and should be prepared in time because it defines the purpose and structures of a project, such as committees, meetings, negotiations, or any similar collection of people who have agreed to work together to accomplish a shared goal. ToRs further provide information regarding the aims of the contracting authority in connection with the implementation of the contract. In general, the aims to be mentioned in ToRs is in regard to the overall objective of the contract and to the contract's specific objectives and expected results. Basing on the foregoing, Locatelli et. al., (2017) acknowledge the credibility of this information and recommend that it should be presented at an appropriate level of detail and with appropriate clarity, in order to allow: candidate economic operators to form a clear picture of the reasons for which the contract is implemented, ascertain its importance and understand fully what they are expected to deliver and achieve, if they are awarded the contract. Both the economic operator to be selected as a Contractor and the Contracting Authority use this information for the purposes of managing the implementation of the contract, ascertaining easily at any given time during implementation whether or not the contract is on track with respect to all three levels of aims (overall objective, specific objectives and results, Locatelli et. al., (2017).

The study findings are in line with those of Chid and Hamid (2015) whose appraisal of the credibility of documentation in enhancing project performance established that a statement

of work (SoW) defines specific activities, deliverables and timelines for a services provider to the client and thus, lays down the entire landscape of the project before it is executed.

The findings have shown that the ToRs and SoWs in the district were not prepared in time. This implies that contracts awarded in Sheema DLG had a series of loopholes. Follow up was problematic given that some aspects of the contracted activities appealed to the tacit understanding of the contracted firm. Room for errors of omission and commission seem to have existed in the work done by the contracted firms as they lacked clearly and comprehensively formalised points of reference follow up.

Both operational and management controls are put in place to control the effective and efficient performance of construction contracts shows that the respondents disagreed that they were put in place by management of Sheema DLG to control the effective and efficient performance of construction contracts (Mean=2.08, Std. Dev=1.36). Oliviera and Martins (2016) note that absence of management and operational controls in a project clearly implies lack of comprehensiveness in the planning activities as the controls lay a basis for increasing effectiveness of the construction projects and as well help to reduce costs in addition to providing strategic and competitive advantages. Sheema DLG planning activities falling short of this implies a potential multiplier effect on the outcomes of contracts, construction projects inclusive.

Conclusion

From the findings obtained on procurement planning in Sheema DLG, it is surmised that procurement planning was poorly handled by the management of the District as proven by

the majority disagreements to the measures selected for assessing the status of procurement planning in the District. In this line of argument therefore, poor procurement planning had a large bearing on the performance of construction contracts in the District. The assertion is amplified by the observations of Nassuna (2017) that procurement planning provides a framework for the execution of the requirement and user departments usually expect their requirements to be delivered within the shortest time possible. Related to Nassuna's finding is Lynch's (2013) observation that procurement planning enables the effective selection of a procurement method which achieves their immediate expectations than the legally acceptable procurement method. The findings of the study indicate that when key planning activities are not executed, poor performance of contracts occurs as established by Ocharo (2013) that that planning enables the choosing of the most appropriate contractor to deliver a specified project so that value for money is achieved.

4.5 Effect of contract monitoring and administration on performance of construction contracts

The second research question of the study was to determine how contract monitoring and administration affected the performance of construction contracts in Sheema DLG. Contract monitoring and administration was conceptualised into ten questions. The following section presents and interprets the general perception of the respondents about contract monitoring and administration of construction projects in Sheema DLG. The respondents were asked their opinions concerning the various attributes of contract monitoring and administration. The opinion of the respondents is presented in Table 4.7.

Table 4.7: Description of aspects of contract monitoring and administration

S/No	Aspects of Contract monitoring and administration	Mean	Std. Dev	RII	Ranking
1.	Sheema DLG contracts management team often holds pre-performance meetings.	2.69	1.46	0.538	1 st
2.	Acceptable performance measures are used to appraise performance of contractors.	2.53	1.42	0.506	2 nd
3.	Sheema DLG conducts follow up monitoring of all construction contracts.	2.51	1.56	0.504	3 rd
4.	Project performance in Sheema DLG on a quarterly basis using clear, objective and meaningful indicators.	2.35	1.37	0.472	4 th
5.	Contractor performance is cross checked with preset sound metrics monthly.	2.34	.62	0.469	5 th
6.	Contract Manager understands his/her role and has clear visibility of well-structured roles/responsibilities on the contractor's side.	2.23	1.22	0.447	6 th
7.	Contract Manager is appointed for each Contracted project	2.21	1.42	0.435	7 th
8.	Monitoring reports produced focus on variances	2.17	1.47	0.435	8 th
9.	Sheema DLG carries out monitoring at the begin of construction projects	2.11	1.38	0.422	9 th
10	Accurate and timely monitoring reports are prepared for management	2.45	1.47	0.249	10 th

Std. Dev- Standard Deviation; RII- Relative Importance Index

Key for Interpreting Mean Values: 1.00-2.49= Disagreed; 2.5- 3.49= Undecided, 3.5-5.00=Agreed

In Table 4.7, the results indicates that majority of the respondents disagreed that Sheema DLG procurement department often conducts pre-performance meetings (Mean=2.69, Std.Dev=1.46) yet these are necessary to clarify the procedures to be used throughout the contract term and as well enable all parties to better understand one another's perspective

and expectations. Mezgebu (2012) argues that in the management of a construction contract, such meetings are ideal and necessary because the members of the contract administration team may have different views of the contract due to their different responsibilities. The meetings are important in a way that they enhance the harmonization of the conflicting views as well as enabling the team members to embrace team effort. The apparent failure to organize pre-performance meetings in Sheema DLG therefore provided anecdotes for poor performance of construction projects.

From Table 4.7, regarding the appointment of a contracts manager, Contract Manager is appointed for each Contracted project and the results shows that the majority of the respondents disagreed that whenever a construction contract was awarded to a contractor, effort was made to ensure that a contract manager was appointed for each contract and provided with all contract documents upon signing of the contract (Mean=2.21, Std.Dev=1.42).

It was established that the overall management of construction constructs was left to the supervision of the DLG team, which in most of the cases never had time to effectively execute the monitoring and supervision role as and when required to. A contract manager is an important strategic line of function in the administration and monitoring of the construction contracts as she/he reports to the department head. A contract manager is responsible for the success of the contract administration activities for each contract (Karemani, 2017) by serving as a coordinator, organizer, evaluator, mediator, and enforcer of the contract administration program. Karemani (2017) further argues that a contracts manager effectively coordinates the activities of contract administration teams and as well

schedule meetings at least monthly with each team to review the status of individual contracts and the progress of the contracting program. As an organizer, the contract manager establishes what is to be evaluated for each contract and devise rating systems and monitoring methods to be used and would also establish the procedures for review of contract problems or disputes (Karemani, 2017) while as an evaluator, they determine the acceptability of reports or other deliverables provided by the contractor and even monitor the performance of the contractor in person when possible, working closely with the field manager; and in mediation, help to resolve conflicts between the contractor and residents or local government clients when such conflicts cannot be resolved by the field manager or contract administrator and would also monitor team members, departments, and user agencies to prevent the development of an adversarial relationship that could affect the contractor's performance. As an enforcer, the contract manager would interpret contract provisions for the contractor, contract administration team members, and departments and decide on what liquidated damages provisions or other default actions would be taken if serious service problems arise (Karemani, 2017). In Sheema DLG, all these functions are eclipsed by the district project monitoring team which may not easily manage to expedite all the above functions. This has an effect on the performance of the construction contracts in the district.

In Table 4.7 also, it is indicated that majority of the respondents disagreed that Sheema DLG carried out comprehensive follow up monitoring of the construction contracts (Mean= 2.51, Std. Dev=1.56). Follow-up monitoring is the inspection method that aids in the provision of answers to general and specific questions such as: Does the work meet

contract requirements? Is the contractor on schedule? Have the required number of units of service been delivered? Are clients satisfied with the service? Has the work area been left in acceptable condition? Is the construction rhying with the approved plan? Are the construction materials used bought from the prequalified firms? The failure of management of Sheema DLG to carry out follow up monitoring appears to have compromised the quality of the construction projects as the above key questions are left begging and unanswered. What can be surmised from this scenario is that quite often, the construction projects upon completion, deviate from the standards set at the award of the contract. This signals a possibility of poor performance of the construction contracts.

Table 4.7 indicates that that majority of the respondents were ambivalent on whether construction project performance was assessed on a quarterly basis using clear clear, objective and meaningful indicators (Mean=2.35, Std.Dev=1.37). In essence, this finding implies that true, the assessment of the construction was done on a quarterly basis, however, the indicators used seemed to have lacked clarity, were not objectively pinned to the scope of the contracted project and equally lacked breadth to cover all the aspects of the construction project comprehensively. In one way or the other, this resulted into poor performance of the construction project. In principle, the quarterly reports, assuming they covered all the construction projects, would help to provide corrective means of ironing out the deficiencies in the projects.

Regarding the cross checking of contractor performance, Table 4.7 indicates that the respondents disagreed that contractor performance is cross checked with preset sound

metrics monthly (Mean=2.34, Std.Dev=.62) while Item 8 shows that the respondents disagreed that acceptable performance measures were used to appraise performance of contractors (Mean=2.23, Std.Dev=1.22). From these findings, the chances are high that most of the construction projects in Sheema DLG do not meet the standards of a quality construction as assessments and checks are not standardized and regularly done. Through informal conversation with Sheema District Engineer, it was established that some structures are constructed using inferior construction materials and have poor quality concrete. On the road sections, many show premature failure and are susceptible to rutting. This signifies poor performance of the construction projects.

The results in Table 4.7 further indicate that majority of the respondents disagreed that contract management team understood their roles and had clear visibility of well-structured roles/responsibilities on the contractor's side (Mean=2.21, Std.Dev=1.42). Nassuna (2017) established that project performance and success is guaranteed when there is effective monitoring of the contracted project. Nassuna (2017) however, provided a suggestion that the contracting authority should ensure that the contracts administration team understands the duties associated with their position on the team and must understand a number of basic issues that are common to public and private service delivery such as customer satisfaction, timeliness, productivity, and performance problems. Further, Nassuna (2017) argues that the team must also understand the importance of pre-performance conferences in laying the groundwork for efficient and effective performance and monitoring. Through informal conversations with some of the respondents, it was established that Sheema DLG took extra care and consideration to the preparation of the contract documents, but gives

little consideration to other procedures that follow after the contract has been awarded. To monitor a contract effectively, the team must select appropriate measures of output or outcome, choose suitable monitoring methods, carefully document performance, and work cooperatively with the contractor (Nassuna, 2017). However, this only happens when they are well versed with the details, specifications, terms and conditions embedded in the contract agreements. The apparent failure of Sheema DLG management to have a specific team headed by the contracts manager and the choice to instead rely on the district projects management committee for supervision appears to have affected the performance of the construction contracts.

On whether accurate and timely monitoring reports were prepared for management for purposes of improving on the performance of the construction projects, Table 4.7 indicates that majority of the respondents disagreed that accurate and timely the reports were prepared (Mean=2.17, Std.Dev=1.47). With regard to monitoring of startup periods, Table 4.7 indicates that majority of the respondents disagreed that Sheema DLG carries out monitoring at the startup period of the construction contracts (Mean=2.11, Std. Dev.=1.38). It was established that limited efforts were made by the DLG management to monitor the construction contracted projects start-up period. According to Karemani (2017), even an experienced contractor sometimes underestimates the effort required to perform some aspects of the service and overestimates others. These miscalculations may cause performance to be uneven until the contractor makes the necessary adjustments in personnel and equipment to balance service in all contract areas. Therefore, Karemani (2017) recommends that during the startup period, the contract administration team needs

to monitor intensively but leniently in order to ably help the contractor get on the right path. The situation in Sheema DLG deviates from the above standards hence providing anecdotes of poor contract performance.

In Table 4.7, it is also indicated that majority of the respondents disagreed that monitoring reports produced focused on variances that is to say, shortfalls in the contracted projects (Mean=2.45, St. Dev=1.47). Without monitoring the contractor's performance effectively, the contract requirements would unlikely be complied with and there would be little opportunity for improvement of the service (Nassuna, 2017). The findings obtained from informal conversations with some of the respondents further revealed that the contract monitoring and administration activities were not given particular attention by management. Much as the respondents revealed that contract administration and monitoring was a subset of the general monitoring function of the organization. This insinuated that the monitoring was done haphazardly in Sheema DLG which also provides the anecdotes of poor project performance.

Conclusion

Basing on the majority responses, contract monitoring and administration in Sheema DLG has various gaps. These have greatly affected the performance of construction contracts. The failure to prepare performance and follow up reports as well as monitoring and evaluating the construction projects on a quarterly basis leaves many gaps that are exploited by contracted firms to deliver substandard outputs. Equally, the study established that Sheema DLG management rarely define measures for appraising on-going

construction projects. This situation gives the contracted firms a leeway to alter the agreed upon plans in the interest of 'saving'. Consequently, most of the time, the deliverables are substandard.

4.6 Hypotheses Testing

In this study, two alternative hypotheses were set. These were:

H_{O1} There is no relationship between Procurement planning and performance of construction contracts

H₁ There is a significant relationship between procurement planning and performance of construction contracts

H_{O2} There is no relationship between contract monitoring/administration and performance of construction contracts

H₂ There is a significant relationship between contract monitoring and administration and performance of construction contracts

To validate the above hypotheses, a multivariate regression was run in SPSS using the average indices of procurement planning (AvProcPlan), contract monitoring and administration (AvContMonAdm) and performance of the construction contracts (AvPerfConsContr). The results are summarised in Table 4.8;

Table 4. 8: Summary Multivariate Model

	Sum of squares	Df	Mean Square	F	Sig.(p-Value)
Regression	.541	3	.180	4.344	.037
Residual	9.115	68	.134		
Total	9.656	71			

p≤0.05

The results from Table 4.8 show that there is a positive significant relationship between procurement planning, contract monitoring and administration and performance of construction contracts in Sheema DLG ($p=0.037<0.05$). The magnitude of the effect of the procurement processes and performance of construction contracts is shown in Table 4.9:

Table 4. 9: Regression Model Coefficients

Variables	Adjusted R Square	Coefficients std. Error	Standard coefficients	t- statistic	P- value
Performance of construction contracts		.311		3.772	0.000
Procurement planning	.261	.113	.128	4.071	0.028
Contract monitoring and administration	.213	.625	.051	2.424	0.043

From Table 4.9, the resulting regression model is $Y=0.311+ 0.113X_1 + 0.625 X_2 + \varepsilon$
 where: Y=Performance

X_1 =Procurement planning

X_2 = Contract monitoring and Administration

ε =Error term

Table 4.9 further shows that the adjusted R square between procurement planning and the performance of construction contracts in Sheema DLG was 0.261 suggesting that procurement planning predicted a 26.1% variation in the performance of construction contracts in the District. This observation provides a clear testimony of Jackson and Ombui (2018) that procurement planning should be considered a core and key activity in the procurement process. They further argue that in case an entity fails to carry out effective procurement planning, the procurement / resulting contract can be marred by dissatisfaction among the beneficiaries. As well, this could lead to wastage of time and resources as the corrective function of planning is lost. Jackson and Ombui (2018) recommend that contracting entities ought to formulate a fully-fledged procurement plan, that among others, helps to describe describing the processes that the contracting institution will you will go through to appoint those suppliers contractually.

The findings of the study are amplified by those of Awanyo(2019) who established that procurement planning is very important because it provides the list of all requirements that an entity would procure over a period of time. Awanyo (2019) enumerates the contributions of the procurement planning further by enlisting that from the same, the procurement schedules are developed and the timelines for carrying out each step in the procurement process up to contract award and the fulfillment of the requirements are established. Furthermore, the resulting procurement plan allows for the consolidation of similar requirements under one contract or the division of a requirement into several contract packages for economies of scale and equally enables the procuring entity to forecast any need for additional inputs; allows for the monitoring of the procurement

process to determine how actual performance compares with planned activities; and enhances transparency and predictability of the procurement process.

The results from Table 4.8 furthermore, show that the adjusted R square between contract monitoring and administration and performance of construction contracts was 0.213 suggesting that contract monitoring and administration predicted a 21.3% variation in the performance of construction contracts in the District. The findings of the study are in consonance with those of Bautista and Ward (2009) and Hotterbekx (2013) who observed that performance of contracted projects is a function of the effective monitoring and administration which is suggestive that the entire procurement team should also be engaged in managing the post award contracting activities. To effectively carry out contract monitoring and administration, the above scholars recommend that the management of the contracting institution should endeavor to integrate administration processes and activities such as managing contractor payment process and managing contract change process with other departmental core processes such as risk management department.

The findings concur with those of Limberakis (2012) that contracting firms or organizations should endeavor to monitor the contracted firms with regard to safely and timely delivery of the service for success of the project. Limberakis (2012) considers monitoring and administration of contracts as litmus for steering a project to the anticipated levels of performance.

4.7 Developed framework for closing gaps in DLG procurement system

Sections 4.5 and 4.6 have indicated that Sheema DLG has deficiencies in procurement planning and contract monitoring and administration. Procurement as earlier indicated in Chapter one is a key activity of Ministries, Departments and Agencies (MDAs) and claims a lion's share of their annual budgetary allocations. In this section, efforts are made to provide strategies that have the capability of circumventing and mitigating the anomalies in the performance of the construction projects. The framework in Figure 4.2 below is suggested as an anecdote to the deficiencies in the procurement processes and is considered an ideal solution that will correct the defects in the current and future procurement process activities in Sheema DLG and other Local Governments at large.

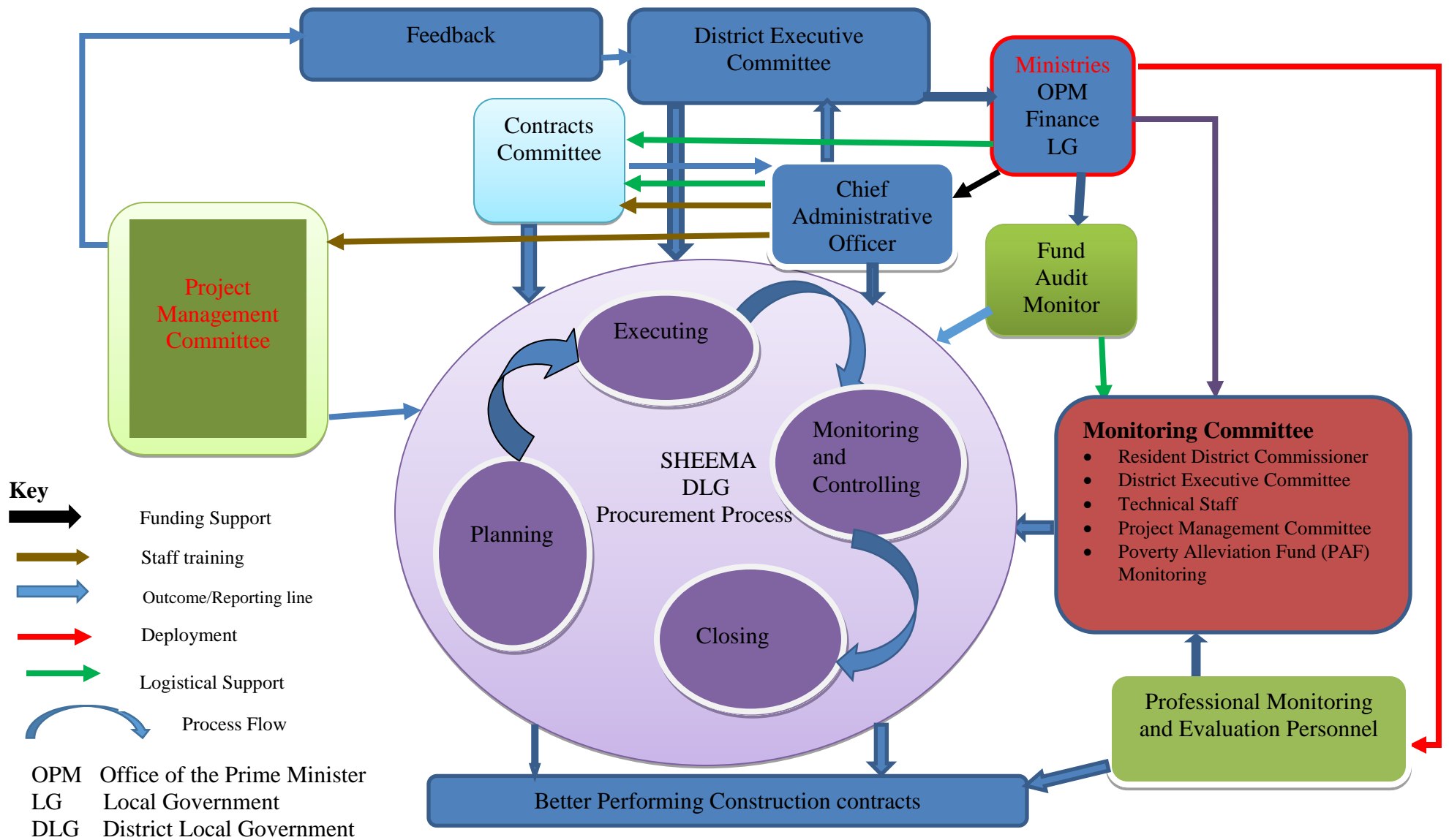


Figure 4. 2: Developed framework for closing existing gaps in the procurement system in Sheema DLG

4.7.1 Description of the framework

From the framework above, the procurement process is an intersection activity between different parties. Each of the parties plays numerous roles as explained in the next sections:

Ministries

The procurement process of DLGs involves three ministries; Finance, Planning and Economic Development (MoFPED); Office of the Prime Minister (OPM) and the Ministry of Local Government (MoLG). MoFPED is charged with allocating funds to DLGs, monitoring their performance and conducting value for money (VfM) audits. MoLG is charged with making follow ups, supervision and audits of contracted projects. The Office of the Prime Minister is charged with monitoring and evaluation.

District Executive Committee

This is charged with reviewing budgets, monitoring and implementing government policies and programmes

Project Management Committee

This is charged with quality control and management of all the contracted projects in the district

Monitoring Committee

This is charged with ensuring that whatever was planned is executed as programmed

Contracts Committee

This is charged with procuring goods and services on behalf of the district. They are, among others, supposed to scrutinize the evaluation reports and they award contracts.

4.7.2 Closing the gaps in the procurement process

Training of Staff

In the Framework (Figure 4.2), the brown lines are introduced by the researcher as one way of closing the gaps in the procurement process. The brown lines suggest that short course training opportunities be provided for the purposes of acquainting the concerned intervention groups with ‘hybrid’ knowledge about procurement processes in the district. This could take the form of refresher procurement training or ‘vestibule’ procurement training. This study suggested that the refresher trainings should be organized on site or offsite while the vestibule trainings should involve placement for a short period of time in a best performing institution that carries out procurement to enable them benchmark and cross pollinate ideas of best practice back home. Adoption and implementation of the novel ideas learned from the training site has the potential of giving rise to an improved procurement system.

Deployment of Professional Monitoring and Evaluation Staff

The Ministries should consider inclusiveness of M&E staff in the Public service structure. In the Framework, this is shown by the red arrow. These are important and badly needed for the monitoring and evaluation of the contracted projects. Once these have been brought on board, challenges of misreporting, tracking of progress, designing monitoring tracking tools and training the political and technical personnel on the basics of monitoring.

Providing Logistics to Committees

One of the causes of lapses and laxities in the procurement processes and systems of Local Governments seems to be the failure of the ministries and district management to provide logistics to the committees in the form of transport allowances, per diem/ Daily Subsistence Allowances (DSAs), among others. This tends to demoralise the committee members and at worst breeds the “I don’t care attitude”. This Framework, as shown by the green lines suggests that the ministries together with the CAOs should cater for this function; and such a provision might also mitigate the possibility of the committee members falling into the temptation of soliciting for kickbacks from the contracted firms.

The framework also suggests that the logistical support has the potential of enhancing savings from better project performance as it improves on monitoring and evaluation. Effective monitoring and evaluation is a cost saving strategy as it has the potential of reducing on the scale and scope of cost overruns. Therefore, it has a long term effect on project performance as the savings made provide a buffer from which more logistical support is drawn from.

Revising the budgetary allocations to DLGs

The framework also looks at increased budgetary allocations to the procurement function by the concerned ministries as a key factor that can provide a fundamental solution to the challenge of insufficient funds that have always bedeviled the procurement function in the district local governments. Equally, the savings from better performing projects provide an additional source of budget funds. From the framework, this is shown by the black arrow.

4.8 Chapter Summary

In this chapter, the study findings are presented, analysed and discussed objective by objective. The key study findings indicate that procurement planning, contract monitoring and administration in Sheema DLG have a series of gaps that have brought about poor performance of construction contracts. A framework has been developed by the study suggesting strategies for filling the identified gaps. In the next chapter, the major findings of the study are presented in a summarised form, conclusions drawn and recommendations made

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the findings

The study aimed at assessing the effect of procurement processes on the performance of construction contracts in local governments in Uganda. The study was carried out in the context of Sheema District. Specifically, the study assessed procurement planning, and contract monitoring and administration as the major and key procurement processes that affect construction projects. The detailed findings are presented in the preceding chapter with key gaps in the procurement processes identified and a framework developed to close the said gaps. In this section, the major study findings are summarised;

5.1.1 Effect of Procurement planning on the performance of construction projects

From the study, it was reported construction contracts were performing poorly in Sheema DLG. The study established that the poor performance of the contracts was largely arising from the anomalies and the many deficiencies existent in the procurement process. For example, procurement planning was done haphazardly. Case in point, in Sheema DLG, limited consideration was given to the development of a contingent plan for purposes of cushioning against unforeseen circumstances. It was further found out that budgeting is also the one of effect of procurement processes in that that some of the effects originate from overseeing the outcome rather than the procuring entity for example of budgeting for some cases like specifications, scope of works and terms of reference for the required products, works, and services respectively are not well set and Contractors sometimes do not get enough time required to execute the contracts awarded to them. It also found out that from the study that there were cases where

contracts are awarded on the basis of corruption and conflict of interest which has resulted into cases of poor procurements process performance.

5.1.2 Effect of Contract Monitoring and Administration on the Performance of Construction contracts

Sheema DLG management does not follow closely the activities associated with contract monitoring and administration. Majority of the respondents disagreed to the statements that measured the status of contract monitoring and administration in Sheema DLG which by implication meant that this function performed poorly. For example, follow up monitoring was rarely carried out, project start up monitoring was equally not given consideration and the DLG management failed to appoint a contracts manager to serve as a watch dog and as well play an executive role of ensuring that there is harmony in the system. As a result, construction contracts are mismanaged leading to poor performance.

The study findings also revealed that in Sheema DLG, construction projects were not monitored and evaluated on a quarterly basis using meaningful and clear objectives and indicators. This gave room for the emergence of cost overruns, shoddy work and time overruns leading to poor performance of construction projects. Similarly, there were poor reporting structures in a way that the District project management teams were not regularly furnished with reports about the progressive performance of the contracted construction projects. This created voids that were exploited by the contracted firms to deliver substandard work.

Collectively, both aspects of planning, and contract monitoring and administration led to the poor performance of construction projects in the District.

5.2 Conclusions

From the study, the following conclusions were made;

5.2.1 Effect of procurement planning on the performance of construction contracts

Management of Sheema DLG does not follow the protocols as prescribed in the PPDA Act of 2003. Notably, the management of the District often fails to develop contingency plans to handle cases of failure and exit by contractors; rarely use procurement checklists and do not involve all the stakeholders in procurement planning meetings. Basing on these inequities, the study concluded that Sheema DLG does not carry out comprehensive procurement planning leading to the poor performance of construction projects and consequently, the poor quality of services delivery.

5.2.2 Effect of contract monitoring and administration on the performance of construction contracts

In an ideal situation, contract monitoring and administration requires that a contract team be appointed, the team plans for and holds pre- performance meetings to define and document performance measures and the team carries out routine or at times periodic follow up monitoring visits to assess the course of performance of a contracted project. Equally, a contracts manager is supposed to be appointed per project and periodical reports written to provide progress information. From the preceding Chapter, the findings revealed that on a whole, all the above activities were not effected in Sheema DLG. Against this observation, the study concluded that poor contracts monitoring and administration has greatly hindered the performance of construction contracts in Sheema DLG.

5.3 Recommendation

The study has identified a series of gaps in the procurement processes of Sheema DLG especially in the planning, and contract monitoring and administration components. As a result, the study has developed a framework that is hoped to bridge the identified gaps. This study recommends that further research be carried out in Sheema DLG and other LGs as well as MDAs on the developed framework so that refinements can be made before it is fully implemented.

5.4 Areas for further research

It is suggested that the study on the procurement processes in the Local governments in Uganda be extended after refinement of questionnaire and / or related data collection and analysis approaches. Further, it is suggested that the refined questionnaire be made broad to include the factors affecting the performance of contracts and other challenges facing the performance of construction contracts in DLGs in particular and MDAs at large.

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APPENDIX 1: Krejcie and Morgan (1970) Table for Determining Sample size

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				

APPENDIX 2: QUESTIONNAIRE TO RESPONDENTS

My name is **Tumusiime Musiime Fred** a student of Master of Science in Construction Technology and Management of Kyambogo University. 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 assess the effect of procurement process on performance of construction contracts in Local Government a case of Sheema district. The information obtained from you will be kept highly confidential. You are also requested not to write your name on this questionnaire. Thank you for your cooperation.

SECTION A: BACKGROUND INFORMATION

Please tick the appropriate option

1. Gender of Respondents

Male ii) Female

2. Age Groups of Respondents

i) 17 and below ii) 18-30 iii) 31-49 iv) 50 and above

3. Highest Level of Education

Certificate & Below Diploma Degree

Masters Others

4. How long have you worked in Sheema DLG?-----

SECTION B: DEPENDENT VARIABLE (PERFORMANCE OF CONSTRUCTION CONTRACTS)

Provide your opinion by use of a tick (✓) against each of the statements measuring the performance of construction contracts in Sheema DLG using the following scale: 1= Strongly Disagree, 2=Disagree, 3=Not Sure, 4=Agree, 5= Strongly Agree.

S/No.	Performance of construction	2	3	4	5
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	contracts aspects					
3.	Sheema DLG construction contracts are usually completed at minimum possible cost					
4.	Sheema DLG construction contracts usually meet the District's contractual scope					
3	Sheema DLG construction contracts are usually completed on time					
4	Sheema DLG construction contracts usually register a high level of beneficiary satisfaction with the projects in the communities					
5	Sheema DLG construction contracts usually produce quality deliverables all the time.					

SECTION C: INDEPENDENT VARIABLES (PROCUREMENT PROCESSES)

Provide your opinion by use of a tick (√) against each of the statements measuring the procurement processes in Sheema DLG using the following scale: 1= Strongly disagree, 2=Disagree, 3= Not Sure, 4=Agree, 5= Strongly agree

C1. PROCUREMENT PLANNING

S/No	Procurement planning aspects	1	2	3	4	5
1.	Contingency plans are developed to handle contractor's failure and exit by management.					
2.	Sheema DLG prepares procurement compliance checklists for construction contracts					
3.	Procurement planning meetings involve all stakeholders.					
4.	Sheema DLG always develops Key Performance Indicators (KPIs) for					

	every construction contracted					
5.	Sheema DLG prepares ToRs and SoWs in time					
6.	Both operational and management controls are put in place to control the effective and efficient performance of construction contracts.					

C2. CONTRACT MONITORING AND ADMINISTRATION

S/No	Aspects of Contract monitoring and administration	1	2	3	4	5
1.	Sheema DLG contracts management team often holds pre-performance meetings.					
2.	Acceptable performance measures are used to appraise performance of contractors.					
3.	Sheema DLG conducts follow up monitoring of all construction contracts.					
4.	Project performance in Sheema DLG on a quarterly basis using clear, objective and meaningful indicators.					
5.	Contractor performance is cross checked with preset sound metrics monthly.					
6.	Contract Manager understands his/her role and has clear visibility of well-structured roles/responsibilities on the contractor's side.					
7.	Contract Manager is appointed for each Contracted project					
8.	Monitoring reports produced focus on variances					
9.	Sheema DLG carries out monitoring at the begin of construction projects					
10	Accurate and timely monitoring reports are prepared for management					

SECTION D: CLOSING GAPS IN TE

REMENT PROCESSES

How can the gaps in the DLG procurement processes be closed?

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.....
.....
.....

Thank you for participating in the study

APPENDIX 3: Secondary Data from Sheema DLG Contracts Register and Project Files (2015-2019)

CODE	ORIGINAL CONTRACT PRICE in Ushs	ACTUAL PRICE in Ushs	COST VARIATION in Ushs	CONTRACT PERIOD (Months) in Ushs	ACTUAL CONTRACT PERIOD (Months)	TIME VARIATION in Months	QUALITY ISSUES	F/YEAR	COMMENT
									-
oo1	147,575,000	158,129,680	(10,554,680)	3.0	5.0	(2.0)	Demolished the foundation	2015/ 2016	cost over run
oo2	10,140,000	8,067,002	2,072,998	3.0	1.5	1.5	Successfully completed	2015/ 2016	time over run
oo3	153,204,435	149,002,310	4,202,125	4.0	5.0	(1.0)	no quality issue	2015/ 2016	
oo4	28,828,000	31,453,700	(2,625,700)	3.0	3.0	-	no quality issue	2015/ 2016	
oo5	24,601,938	24,540,350	61,588	3.0	3.0	-	no quality issue	2015/ 2016	
oo6	25,293,300	26,782,056	(1,488,756)	3.0	2.5	0.5	no quality issue	2015/ 2016	cost over run, time over run
oo7	5,121,000	5,121,000	-	2.0	1.0	1.0	no quality issue	2015/ 2016	time over run
oo8	45,530,000	48,953,023	(3,423,023)	3.0	3.0	-	cracks in foundation	2015/ 2016	cost over run
oo9	7,253,000	7,253,000	-	2.0	1.0	1.0	no quality issue	2015/ 2016	
oo10	199,393,052	84,054,023	115,339,029	4.0	6.0	(2.0)	paint was removed and replaced	2015/ 2016	time over run
oo11	56,712,488	56,709,210	3,278	3.0	4.0	(1.0)	ceiling remoulded	2015/ 2016	time over run
oo12	20,020,000	20,014,092	5,908	2.0	2.0	-	Successfully completed	2015/ 2016	
oo13	26,285,240	26,284,000	1,240	3.0	2.0	1.0	Successfully completed	2015/ 2016	time over run
oo14	24,809,500	26,987,003	(2,177,503)	3.0	2.0	1.0	splash apron separated from wall	2015/ 2016	cost over run, time over run
oo15	29,764,160	33,764,000	(3,999,840)	3.0	3.0	-	Successfully completed	2015/ 2016	cost over run
oo16	9,129,660	9,129,600	60	2.0	2.0	-	Successfully completed	2015/ 2016	

CODE	ORIGINAL CONTRACT PRICE in Ushs	ACTUAL PRICE in Ushs	COST VARIATION in Ushs	CONTRACT PERIOD (Months) in Ushs	ACTUAL CONTRACT PERIOD (Months)	TIME VARIATION in Months	QUALITY ISSUES	F/YEAR	COMMENT
oo17	221,786,926	220,764,840	1,022,086	4.0	6.0	(2.0)	differential settlement	2016/ 2017	
oo18	2,468,247,120	2,690,087,061	(221,839,941)	6.0	10.0	(4.0)	reviewed the designs	2016/ 2017	cost over run
oo19	1,980,649,440	2,132,109,050	(151,459,610)	6.0	9.0	(3.0)	Demolished the 3 unit structures at ring beam level	2016/ 2017	cost over run
oo20	2,131,575,986	2,276,550,980	(144,974,994)	6.0	11.0	(5.0)	environmental impact assessment was not conducted	2016/ 2017	cost over run
oo21	33,414,399	33,414,129	270	3.0	2.4	0.6	Successfully completed	2016/ 2017	time over run
oo22	30,079,000	29,900,348	178,652	3.0	2.0	1.0	no quality issue	2016/ 2017	time over run
oo23	3,319,850	3,319,850	-	1.0	1.0	-	no quality issue	2016/ 2017	
oo24	349,571,779	348,009,980	1,561,799	3.0	7.0	(4.0)	the project was not labeled	2016/ 2017	
oo25	20,029,320	20,029,300	20	2.0	2.0	-	Successfully completed	2016/ 2017	
oo26	16,930,340	16,929,000	1,340	2.0	2.0	-	Successfully completed	2016/ 2017	
oo27	130,000,000	129,998,761	1,239	4.0	6.0	(2.0)	no quality issue	2016/ 2017	
oo28	20,155,580	20,155,400	180	2.0	2.0	-	Successfully completed	2016/ 2017	
oo29	95,665,721	118,290,600	(22,624,879)	3.0	4.0	(1.0)	reviewed the designs	2016/ 2017	cost over run
oo30	8,603,000	8,602,900	100	2.0	1.0	1.0	no quality issue	2016/ 2017	time over run
oo31	2,365,536,351	2,605,045,600	(239,509,249)	9.0	12.0	(3.0)	pump house was demolished	2016/ 2017	cost over run
oo32	44,915,520	42,034,670	2,880,850	3.0	2.7	0.3	no quality issue	2016/ 2017	time over run
oo33	8,126,000	8,126,000	-	3.0	1.4	1.6	Successfully completed	2016/ 2017	time over run
oo34	8,660,800	8,660,800	-	1.0	1.0	-	no quality issue	2017/ 2018	
oo35	5,316,582	5,316,500	82	1.0	1.0	-	no quality issue	2017/ 2018	
oo36	29,372,560	32,600,340	(3,227,780)	3.0	3.0	-	gate was not included	2017/ 2018	cost over run

CODE	ORIGINAL CONTRACT PRICE in Ushs	ACTUAL PRICE in Ushs	COST VARIATION in Ushs	CONTRACT PERIOD (Months) in Ushs	ACTUAL CONTRACT PERIOD (Months)	TIME VARIATION in Months	QUALITY ISSUES	F/YEAR	COMMENT
oo37	49,871,520	51,980,500	(2,108,980)	3.0	4.0	(1.0)	plumbing was not done	2017/ 2018	cost over run
oo38	29,372,560	31,090,450	(1,717,890)	3.0	3.0	-	doors were not fixed including glasses	2017/ 2018	cost over run
oo39	49,871,520	49,868,090	3,430	3.0	3.0	-	no quality issue	2017/ 2018	
oo40	22,622,600	22,622,600	-	3.0	2.5	0.5	no quality issue	2017/ 2018	time over run
oo41	31,044,500	31,044,000	500	3.0	3.0	-	no quality issue	2017/ 2018	
oo42	34,500,000	37,467,000	(2,967,000)	4.0	3.0	1.0	no quality issue	2017/ 2018	cost over run, time over run
oo43	32,880,000	32,864,316	15,684	3.0	4.0	(1.0)	no quality issue	2017/ 2018	
oo44	3,444,000	3,444,000	-	1.0	1.0	-	no quality issue	2017/ 2018	
oo45	1,500,000	1,500,000	-	1.0	1.0	-	no quality issue	2017/ 2018	
oo46	3,144,000	3,144,000	-	1.0	1.0	-	no quality issue	2017/ 2018	
oo47	16,212,000	16,211,254	746	2.0	1.0	1.0	supplied substandard materials	2017/ 2018	time over run
oo48	13,200,000	13,186,668	13,332	2.0	2.0	-	compromised work	2017/ 2018	
oo49	2,760,000	2,760,000	-	1.0	1.0	-	spares were good	2017/ 2018	
oo50	3,024,000	3,024,000	-	3.0	3.0	-	stationary were rejected	2017/ 2018	
oo51	1,800,000	1,800,000	-	3.0	1.0	2.0	rejected supply of PWDs clutches spares	2017/ 2018	time over run
oo52	452,880,000	497,579,256	(44,699,256)	4.0	7.0	(3.0)	bridge deck collapsed	2017/ 2018	cost over run
oo53	141,800,000	145,869,660	(4,069,660)	1.0	4.0	(3.0)	toilet collapsed inside	2017/ 2018	cost over run
oo54	2,580,000	2,580,000	-	4.0	1.0	3.0	Successfully completed	2017/ 2018	time over run
oo55	2,940,000	2,940,000	-	3.0	1.0	2.0	no quality issue	2018/ 2019	time over run
oo56	1,920,000	1,920,000	-	6.0	1.0	5.0	Successfully completed	2018/ 2019	time over run

CODE	ORIGINAL CONTRACT PRICE in Ushs	ACTUAL PRICE in Ushs	COST VARIATION in Ushs	CONTRACT PERIOD (Months) in Ushs	ACTUAL CONTRACT PERIOD (Months)	TIME VARIATION in Months	QUALITY ISSUES	F/YEAR	COMMENT
oo57	6,564,000	6,558,250	5,750	3.0	1.0	2.0	no quality issue	2018/ 2019	time over run
oo58	2,520,000	2,520,000	-	2.0	1.0	1.0	completed good work	2018/ 2019	time over run
oo59	3,100,000	3,100,000	-	2.0	1.0	1.0	Successfully completed	2018/ 2019	time over run
oo60	1,824,000	1,824,000	-	4.0	1.0	3.0	Successfully completed	2018/ 2019	time over run
oo61	3,000,000	3,000,000	-	1.0	1.0	-	supplied substandard materials	2018/ 2019	
oo62	14,400,000	15,730,560	(1,330,560)	2.0	2.0	-	reviewed the designs	2018/ 2019	cost over run
oo63	2,040,000	2,040,000	-	2.0	2.0	-	no quality issue	2018/ 2019	
oo64	161,920,600	179,909,979	(17,989,379)	6.0	5.0	1.0	demolished structures build in the road reserve	2018/ 2019	cost over run, time over run
oo65	2,760,000	2,622,000	138,000	3.0	1.0	2.0	no quality issue	2018/ 2019	time over run
oo66	2,400,000	2,400,000	-	2.0	0.5	1.5	the repaired vehicle developed a similar issue	2018/ 2019	time over run
oo67	266,000,000	264,670,000	1,330,000	8.0	6.0	2.0	cracks developed	2018/ 2019	time over run
oo68	121,034,000	131,866,543	(10,832,543)	3.0	4.0	(1.0)	ramp was not completed	2018/ 2019	
oo69	35,272,000	39,504,640	(4,232,640)	6.0	4.0	2.0	no quality issue	2018/ 2019	cost over run
oo70	36,397,000	40,582,655	(4,185,655)	2.0	3.0	(1.0)	no quality issue	2018/ 2019	cost over run
oo71	24,809,500	29,510,900	(4,701,400)	4.0	3.0	1.0	Successfully completed	2018/ 2019	cost over run, time over run
oo72	26,285,240	32,330,845	(6,045,605)	4.0	3.0	1.0	no quality issue	2018/ 2019	cost over run, time over run
oo73	46,751,500	53,530,468	(6,778,968)	3.0	4.0	(1.0)	no quality issue	2018/ 2019	cost over run
oo74	29,166,606	29,166,314	292	3.0	4.0	(1.0)	Successfully completed	2018/ 2019	
oo75	28,646,388	32,083,955	(3,437,567)	3.0	2.4	0.6	no quality issue	2018/ 2019	cost over run, time over run

CODE	ORIGINAL CONTRACT PRICE in Ushs	ACTUAL PRICE in Ushs	COST VARIATIONin Ushs	CONTRACT PERIOD (Months) in Ushs	ACTUL CONTRACT PERIOD (Months)	TIME VARIATION in Months	QUALITY ISSUES	F/YEAR	COMMENT
oo76	934,135,939	1,008,820,107	(74,684,168)	6.0	11.0	(5.0)	demolished structures build in the road reserve	2018/ 2019	cost over run
oo77	17,416,800	17,329,716	87,084	2.0	2.0	-	Successfully completed	2018/ 2019	
oo78	11,270,469,100	12,155,200,924	(884,731,824)	18.0	22.0	(4.0)		2018/ 2019	cost over run