

**FACTORS INFLUENCING IMPLEMENTATION OF
TENDERING PROCESSES IN PUBLIC INSTITUTIONS IN
KENYA: A CASE OF SCHOOL FEEDING PROGRAM IN
MINISTRY OF EDUCATION**

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Requirements for the Award of the Degree of Master of Arts in Project
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2018

DECLARATION

This Research Project Report is my original work and has not been presented for an award in any University.

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This Research Project Report has been submitted for examination with my approval as the University of Nairobi Supervisor.

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Date

DEDICATION

This work is dedicated to my family: My loving wife Pamela, My daughters Olivia, Dorothy, Sally, Sharon and My son Eric.

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ABBREVIATIONS AND ACRONYMS

CGP	- Central Government Procurement
GDP	- Gross Domestic Product
GOK	- Government of Kenya
LDCs	- Less Developed Countries
MIS	- Management Information System
NORAD	- Norwegian Agency for Development Co-operation
OECD	- Organization for Economic Corporation and Development
PE	- Procurement Entity
PPDA	- Public Procurement and Disposal Act
PPOA	- Public Procurement Oversight Authority
PPRB	- Procurement Appeals Review Board
RM	- Records Management
SCMA	- Supply Chain Management Association

ABSTRACT

The purpose of the study was to establish the factors influencing implementation of tendering processes in public institutions with reference to school feeding program in Kenya. The study was guided by the following specific objectives: To assess how technology in procurement influence implementation of tendering processes in public institutions; To determine how ethics in procurement influence implementation of tendering processes in public institutions; To examine how records management in procurement influence implementation of tendering processes in public institutions and to establish how supplier selection in procurement influences implementation of tendering processes in public institutions. The study sought to be of help to policy makers, scholars who contribute to existing knowledge gap and management of Ministry of Education Kenya. The study adopted a descriptive research survey design which provided an in-depth analysis of the phenomenon. A descriptive research survey design is a scientific technique of investigation in which data is collected and analyzed in order to describe the current conditions, terms or relationships concerning a problem of a given single dynamic scope. The target population for this study was three hundred (N=300) respondents drawn from different directorates among which ninety (n=90) of them took part in the study. The sample size constituted 90 respondents who formed the sample size. The study adopted stratified sampling as a suitable sampling procedure. The study used interview schedules as its research instrument. From the analysis the study found out that technology, ethics, records management and supplier selection influence implementation of tendering process in public institutions to a great extent. The study recommended that the management should invest in technology and embrace new technology practices; there is need to put more efforts to prevent unethical issues in tendering processes; there is also need to embrace modern record management systems and finally the need to conduct supplier selection in a fair and transparent manner.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Tendering is defined as the process of identifying the most competitive firm to supply goods, services and works amongst the many qualified firms invited to make offers for the supply of goods, works and services. Knowles (1997) defines tendering as a combination of different processes used by the client to produce, display and manage tender documents. Tendering in the public sector not only involves ways of identifying the right company to carry out a public project but also includes invitation for bidding by interested contractors which helps them to acquire contracts by giving feedbacks to tenders using their expertise as well as capacity formation.

Australian Industry Commission (1996) defines competitive tendering and contracting as a process by which preferred suppliers are selected from different possible contractors through seeking offers as well as evaluating the suppliers on the basis of different selection criteria. Public sectors have adopted alternative ways of procuring facilities due to competition on tendering and contracting.

In Kenya the system of public tendering has undergone development from a system with no regulations to an orderly and legally regulated system. The Government's procurement system was initially incorporated in the supplies manual of 1978 which were then postscripted by circulars that were issued from time to time by the treasury. Different tender boards for adjudication of tenders and their awards were created by the supplies manual of 1978 (PPOA, 2012).

According to GOK (2010) a review on the public procurement was undertaken in the year 1999 that established that there wasn't streamlined procurement system for the public sector in general. Further, the procurement system didn't have sanction or penalties towards individuals violating the regulation stated in the supplies manual. Findings of the review also show that the manual didn't cover procurement of works; mechanisms of settling disputes in relation to the award procedures as they are in the supplies manual could not ensure fairness and transparency. In conclusion to the reviews, procurement

transactions in many cases lacked proper record keeping resulting to inaccuracy and inconsistency. Hence causing suspicions as well as dishonest deeds at the tender boards.

The weaknesses of the procurement system not only undermined its ability to carry out their mandates effectively but also contributed to a formed public perception that the public sector wasn't earning any value for money for what is spent on procurement. There was need for the establishment of a given law which will protect the procurement system to be used by the public sector and establishment of necessary institutions that will ensure all the procurement entities follows the set up laws to enhance them attain the objectives of an open tender system.

The global crises of finances, fuel and food have brought relative importance to the school feeding programs as a probable social support and safety net measure which mostly assists children stay in school. There is significant risks of the poor towards the education outcomes due to the increase in price of commodities from past income shock (Frankenberg et al., 2008).

The number of the children out of school was in Indonesia was doubling this causing the economic crisis. Schady (2008) asserts that droughts experienced in Sub Saharan Africa are highly associated with decrease in both schooling as well as children nutrition. Studies conducted in Bangladesh indicate that households had to reduce how they spend on school to sustain the raising prices of food, girls mostly being at risk of dropping out of school (Grosh, Del Ninnon & Tesliuc, 2008).

World Bank group included the school feeding program as eligible for support in a tune of US dollars 1.2 billion global food crisis response facility support to mitigate impacts on education and to maintain the value of school feeding program as a safety net (Grosh, Del Ninnon & Tesliuc, 2008).

According to Kattan (2006) defined the school feeding program as the provision of food to children attending school. The feeding programs can be classified on bases of their modalities: the school feeding program where the children attending schools are given food in school as well as the take home program where the families of the children receive food on condition that the children belonging to the families attend school.

Bundy et al., (2009) asserts that the United Nations world food program (WFP), World Bank together with the partnership for child development (PCD) identified that each country is looking forward on how to give food to its school going children on different scales. Countries tend to depend on external funding from foreign countries. Countries with low incomes transition towards sustainable, government funded feeding programs which are many a times used for purposes of social protection and for educational goals. Ministry of education Kenya in conjunction with the world food program has been assisting school going children in Kenya in food insecure areas of Kenya. The Kenya Government made a request to the World food program to support primary school children in drought affected regions. The program in Kenya begun with an initial phase from 1980 to 1985 that benefited 240,000 school going children. By the year 2007, there was an increase of 1.2million children in 3,847 primary schools (Grosh *et al*, 2008).

The high food and fuel prices experienced in Kenya in the year 2008 affected the beneficiary levels supported by the WFP through the school meals program. The main reason why Kenya implemented the programs of school feeding was to enhance safety measures during crisis periods and addressing of the social needs, enhance nutrition of children and improve education outcomes (Jacoby, 2002).School feeding programs according to Kristjansson *et al*. (2007) can encourage children into going to school and assist them in school through enhancing enrollment and reducing absenteeism. The program further contributes to children learning through enhanced cognitive abilities and lack of hunger.

1.2 Statement of the problem

Public tendering malpractice is any deviation from established rules and procedures of procurement. Public procurement malpractice might also mean lack of integrity, transparency, poor tender documentation, collusion between bidders and procurement officials. The challenges range from failure in determining number of tenders approved, number of tenders discussed, beneficiary satisfaction and number of tenders completed. These malpractices continue to be an everyday challenge in the public sector. These malpractices emanate from an era where public procurement constituted the principal of political patronage.

Modern technology adoption on implementation of tendering process can help public institutions enhance their competitiveness greatly improving efficiency and promoting enhancement of service delivery. Ethics principles on tendering on the other hand are found in codes of conducts. The codes of conduct are aimed at minimizing potential unethical practices such as over pricing and collusive tendering. The foundation and base of a good as well as accountable administration is formed by the record management.

Records that are not organized and well managed causes the inability in accessing the required information to support the formulation of policy, implementation and delivery of programs and services. Poor record keeping means that the auditors' process of locating needed records will be time consuming. Competitive advantage is created by the Successful supplier selection. Competitive performance of public institutions is affected positively if suppliers are effectively selected. The supplier selection is vital as institutions become more dependent on their suppliers.

Public procurement system in Kenya according to Aketch (2005) contributes to 60% of the country's budgeted expenditure. Public procurement in Kenya has been used to meet development objectives of the country (Rege, 2003 as cited in Mutava, 2012). According to Kadima et al., (2013) public procurement is said to be a major player in the Kenyan economy and it is an important factor for economic growth. Public procurement according to OECD (2009) contributes to 10-15 percent of the GDP across the world. In

Kenya, the central government procurement is approximated to be 7.5 percent of the Gross Domestic Product (GDP) in 2004 and 9.3 percent in 2005.

The central government procurement (CGP) was approximated as a percentage of the total government expenditure 33.1 per cent in 2004 and 36.8 per cent in 2005. Kenya 's central government procurement(CGP) was at 95 billion in the year 2004 making Kenya's central government procurement(CGP) the single largest public spending way above salaries and wages(Owegi and Aligula , 2006).

Kenya procurement system reforms were therefore meant to address inefficiencies in public institutions but this has not been the case (Juma, 2010). According to PPOA (2005), the procurement system in Kenya was found to be inefficient therefore undermining its capacity for carrying out their mandate and failure of providing maximum value for money spent on procurement. The procurement system in Kenya has been faced by several challenges. The system also encounters poor record keeping, lack of e-procurement, weak dispute settlement mechanisms, lack of procurement of works, lack of proper sanctions against people who breach regulations and lack of a uniform procurement system for the public sector.

Public procurement and disposal act (PPDA) of 2005 and the regulations of 2006 enactment introduced procedures in the procurement system that allowed efficiency in procurement. The enactment was further aimed at strengthening the procurement process with the sole objective of ensuring transparency, cost effectiveness, competitiveness, fairness and equity. Despite the enactment of the PPD act, tendering processes in Kenya are still glazed with: weak oversight institutions, lack of transparency, delays and inefficiencies, poor record management and corruption (Munano 2012; Langat 2012; Alfred 2008; and Guth; 2008; Owegi and Aligila 2006).

According to Procurement Appeals Review Board (2014), Ministry of Education was found to have committed irregularities in the tendering process. The ministry was found to be facing several issues that affected their processes like for instance in the case of the laptop procurement project where the process lacked transparency and therefore never attracted qualified suppliers. Failure to implement the PPD act has necessitated the need

to conduct an empirical study on the factors influencing implementation of tendering processes in public institutions in Kenya. The study thus seeks to fill the knowledge gap.

1.3 Purpose of the study

The purpose of the study was to establish the factors influencing implementation of tendering processes in public institutions: A case of school feeding program in Ministry of Education; Kenya.

1.4 Objectives of the study

This study was guided by the following specific objectives

- i. To examine how technology in procurement influence implementation of tendering processes in public institutions in Kenya.
- ii. To determine how ethics in procurement influence implementation of tendering processes in public institutions in Kenya.
- iii. To examine how records management in procurement influence implementation of tendering processes in public institutions in Kenya.
- iv. To find out how supplier selection in procurement influences implementation of tendering processes in public institutions in Kenya.

1.5 Research Questions

The study sought to answer the following research questions:

- i. How does technology in procurement influence implementation of tendering processes in public institutions in Kenya?
- ii. How does ethics in procurement influence implementation of tendering processes in public institutions in Kenya?
- iii. How does records management in procurement influence implementation of tendering processes in public institutions in Kenya?
- iv. How does supplier selection in procurement influence implementation of tendering processes in public institutions Kenya?

1.6 Significance of the study

The management of Ministry of education may find the results of this study important as a source of information on what tendering challenges to address in the procurement system and what to do in order to ensure efficiency. Ministry of Education having been found to be facing challenges affecting their processes according to Procurement Appeals Review Board (2014), the study may be of great importance on how to overcome such challenges.

The study may further aim at contributing to the existing knowledge gap in the procurement system. The study may provide a basis for further studies to scholars on the factors influencing implementation of tendering processes in public institutions in Kenya. Finally the study may be of a good help to policy makers as they may obtain knowledge of the tendering processes within a complex procurement system and the responses that are appropriate and specific for public institutions. Policy makers may therefore obtain guidance from this study in developing appropriate policies that may help in regulating the public institutions on tendering processes.

1.7 Delimitation of the study

The study was confined to Ministry of Education Jogoo house in Nairobi because all tenders in education county offices are done in central government. The respondents were employees drawn from the Ministry of Education directorates that work with the supply chain department. These directorates were classified into directorate of administration, directorate of primary education, directorate of secondary education, directorate of adults and continuing education, directorate of school audit and finally directorate of quality assurance.

1.8 Assumption of the study

It was assumed that technology on procurement, ethics on procurement, records management on procurement and supplier selection on procurement influences implementation of tendering processes in public institutions. The assumption of the study was that there was good reliability having selected a sample of 30% of the population. It was assumed that the respondents provided reliable information on factors influencing implementation of tendering processes. The researcher also assumed that reliability of the study was achieved by using consistency within the Ministry to compare test items that measure the same construct. The study further assumed that the respondents gave accurate information for academic purposes.

1.9 Limitation of the study

The study used interview schedule for data collection which were left with the respondents to be collected later after they were completed. The problems that might have been associated with this were loss of the interview schedule, incomplete interview schedule and failure to give information. These problems were overcome by organizing meeting outside working hours and seeking for the respondent's personal contacts. The researcher also anticipated challenge of staff not willing to give full information for fear of any adverse repercussions. This was overcome by simply allowing the respondents to administer the interview schedule themselves. The researcher also assured the respondents that the research was only for academic purposes and all the information obtained was treated with utmost confidentiality.

1.10 Definition of significant terms used in the study

Implementation of tendering process: Refers to a list of processes that produces, display and manage tender documents by the client.

Technology on procurement: refers to the know-how or knowledge, experience and skills needed to set up an enterprise that will in turn manufacture and market products economically.

Ethics in procurement: Defined as moral principles guiding employees in all the aspects and dimensions of their work.

Records management on procurement: Means to preserve accurate data on tendering process in a safe way and easy to retrieve for future reference.

Supplier selection on procurement: refers to the process of selecting a supplier to acquire the necessary materials to support the outputs of the institution.

1.11 Organization of the Study

This study was organized in five chapters. Chapter one covered background of the study, statement of the problem, purpose of study, objectives of the study, research questions, significance of the study, delimitation of the study, assumption of the study, limitations of the study, and finally definition of significant terms used in the study. Chapter two covered literature review which included introduction to the chapter and review literature on technology on procurement and implementation of tendering process, ethics in procurement and implementation of tendering process, records management on procurement and implementation of tendering process, supplier selection in procurement and implementation of tendering process, theoretical framework, conceptual framework, summary of literature and finally matrix table of empirical literature; Chapter Three covered Research Methodology with the following thematic areas; introduction of the chapter, research design, target population, sampling procedure, research instruments, data collection procedure, data analysis technique, ethical consideration and operationalization of variables; Chapter four covered data Analysis, Presentation and interpretation.

Chapter five covered summary of the findings, discussions, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter covered the introduction to the chapter and review literature on technology on procurement and implementation of tendering process, ethics in procurement and implementation of tendering process, records management on procurement and implementation of tendering process, supplier selection in procurement and implementation of tendering process, theoretical framework, conceptual framework, summary of literature and finally matrix table of empirical literature.

2.2 Implementation of tendering process in public institutions

Tendering for public institutions in Kenya is considered one of the major business to business contracting processes in Kenya. The primary objective of the tendering process is to always ensure the best suited supplier is identified to supply goods, services and works to customers who offer best value for money. Besides offering best value for money the supplier must be technically competent, financially capable and commercially sound.

In Kenya, the national government is considered the largest procuring entity with contracts running to billions of shillings. Both the county government and national government tendering processes are guided by the public procurement and disposal at 2015. Despite regulations; Government tenders in Kenya are still riddled with claims of unethical behaviors (PPOA, 2012).

Tenders in public institutions are meant to encourage competition on open market, promote innovative solutions, foster open and honest contract awards and finally reduce risk to procurement entity. Tendering process is integrally fair and therefore clients who understand the process automatically have a winning advantage.

The process of tendering will begin by the procuring entity first identifying their specific needs prioritizing each of the requirements against the business needs. Once the needs have been identified, the financial team will publicly declare to the public there intent to

contract a suitable supplier which is also known as invitation to tender. In Kenya large contracts must be gazette and listed in the Public Procurement and Oversight Agency Publication. Immediately the advertisement is done; potential suppliers can then review the invitation to tender and where they meet the set requirements they can go ahead to purchase the Tender documentation from the procurement entity. Suppliers are then allowed to prepare their response to tenders which should be submitted before the declared tender closing date. The bids are not submitted after the elapse of the closing date.

Once the bids are received, a committee setup by the procuring entity is tasked by opening the tenders which is a very crucial stage of the tendering process as there is need for fairness and transparency. Once the committee agrees on the winner, the recommendation is passed to the commercial, legal and financial teams who then deal with negotiations. When the negotiations is finalized between the supplier and the procuring entity; the contract is awarded then followed by recording for public knowledge (PPOA, 2012).

2.3 Technology on procurement and implementation of tendering process in public institutions.

Agmon (1997) defined the term technology as the knowledge or “know how”, skills and experience needed to set up a business that will economically manufacture as well as market its products. Some scholars defined technology as a collection of knowledge and skills that are required by an enterprise to enhance planning of the business, establishment and the operation of manufacturing plants used in the enterprise. Studies indicate that technology is transformative.

Milner (1996) stated that technologies adopted by procurement entities enables public institutions to reduce inventory investments as well as maintaining the levels of customer service. Public institutions can also investment in profitable products with an aim of meeting customer expectations. Milner (1966) further points out that technology synchronizes and balances two opposing business objectives with an aim of achieving ultimate customer service at low costs. Studies shown that many businesses intend

achieving high customer service level but at very low total cost. Companies therefore can assess tradeoffs and meet their customer's need but still make profits by adopting procurement technology systems.

Proper procurement planning increases accuracy of forecasts, proper plans attuned to market and execution of supply chain activities to ensure cost effective order fulfillments and short lead times (Closs, 1966). Procurement technology systems according to Batenburg (2007) can positively impact on institutions operating expenses through product optimization. Public institutions need therefore to ensure that procurement processes contributes to value for money.

Procurement technology system have multiple approaches but the objectives are invariably twofold: First is enabling a broader variety of purchasing transactions where each and every company will depend on and secondly is to arm decision makers in all levels with actionable and meaningful information in a manner that it is easily accessed and predicted. (Kimaand Shunk, 2004). Bouwman et al., (2005) emphasizes on need of making sure that all the transactions of an institution may it internal or external should be conducted consistently and all the elements of the institutions purchasing should be in a clear view to the decision makers. Unfortunately, most procurement systems lack such consistency simply because they were developed for financial and budget reporting and not for purposes of furnishing information of procurement performance.

Institutions need not to fear costs arising from technology challenges in procurement nor do they need to invest in high end procurement software to meet the institution's procurement objectives, while they can take advantage of using the IT infrastructure existing in the company as they combine it with some bolt-on systems (Batenburg, 2007).

A study conducted by O'Connell (2010) that focused on effective technology utilization in tendering processes in Irish-based construction firms revealed that there exists is an alike e-tendering acceptance level when compared to other republics. This study's conclusion was that technology adoption was considerably discouraged by several barriers, and that probable costs saving in Irish-based construction firms could be

accomplished by applying integrated tools of technology in the tendering processes of construction.

A study was carried out by Kissang (2014) on factors that do affect the processes of tendering in manufacturing companies. It was aimed at identifying technology effects on the tendering processes within the organization. The research concluded that tendering processes were highly affected by inadequate technology and therefore recommended that for organization to manage their tendering processes they should adopt to the latest systems.

Ngugi and Mugo (2012) conducted a study on internal factors of public sector and how they affect the tendering process or the procurement processes. He found that technology as a factor affected the procurement processes at a great extent in the supplies made to Government of Kenya's Ministry of Health. The study concluded that adoption of technology will promote effective tendering processes achieved through advertisement, prequalification, sourcing appraisals, cost savings potential as well as new products identification. Ngugi and Mugo (2012) further states that adoption of technology in government ministries will ensure transparency, enhanced customer and supplier service, and efficiency. The study recommended that offers made should be examined and evaluated effectively.

2.4 Ethics in procurement and implementation of tendering process in public institutions.

Queensland Purchasing, Department of Public Works Crime and Misconduct Commission (2006) define ethics as moral principles guiding employees in all the aspects and dimensions of their work. Concepts of integrity, honesty, diligence, fairness, trust, respect, absence of conflict of interest and abuse of office are all ethical behaviors that need to be observed. Abela and Murphy (2008) points out that strict adherence to ethics contributes to high accountability in ethical decision making.

Abela and Murphy (2008) further assert that ethics is a critical part during the supply chain process which aid in overcoming the tendency of compartmentalizing ethical issues. Conformity to ethics by institutions improves accountability in decision making

since supply chain has the capacity to compartmentalize the various activities which is as a result of solid network of associations. The institute of supply chain management points out in its principles and standards of ethical supply conduct guideline that supply chain management professionals are instructed to avoid actions which appear to lessen ethical standards (Marlatt, 2001).

Procurement entities (PE) therefore need to strictly ensure honesty and fairness when interacting with suppliers who can be both internal and external (Beamon, 2005). According to institute of supply management (2014), outcomes of any perceived impropriety is treated the same as consequences of the actual impropriety. Supply Chain Management Association (SCMA) has institutes that are affiliated to it and therefore provides these institutes with guidelines on standards of behavior and ethical conduct to be followed with respect to their membership (SCMA, 2014).

SCMA (2014) points out that professional in supply chain management are mandated to comply with the code of ethics of the association and which is also adopted by the institutes to maintain the integrity of the profession, the institutes and Supply Chain Management Association as a whole.

Valentine (2004) points out that in public procurement the ethical behavior is vital since it involved public expenditure which is subject to public scrutiny and ought to result in value for money. Public officers are required to behave ethically as this enhances, accountability and openness in procurement processes giving those who supply the needed encouragement to participation in Government marketplace. Risks management cost brought by theft, corruption, fraud, and other improper behaviors are reduced through ethical behavior hence confidence in public administration (Trevino, 2003).

Andvig and Fjeldstad (2010) they did a study in the less developed countries (LDCs) regarding with the public procurement ethics through the Norwegian Agency for Development Co-operation (NORAD). The findings of the study were that the unethical behaviors of the public procurement manifest in terms of direct embezzlement of government funds as well as the offenses committed are similar. Through the findings, the study noted that the cause of unethical issues in procurement of public sectors due to

unethical behaviors is directly seen in terms of direct loss of funds and the offenses committed are similar.

Piff et al, (2012) conducted several researches by making use of naturalistic and experimental studies in the public sectors on factors that affect the ethical standards in the United States of America. Their research explained that people considered to be upper class in the society compared to people of low status have more unethical behaviors. In public organization unethical behavior in procurement it's brought by the upper class individual's altitude.

At Uganda studies involving ethical standards in procurement stated that the cause of corruption in public procurement are directly linked to the organizational culture (Basheka & Tumutegyereize, 2010). It explained that the determinants of the organization mainly act as factors that contribute to increasing trends of procurement corruption. A study conducted by OECD in Europe countries they also stated that in public procurement the status of unethical standards is affected by the organizational culture variables. The study in its findings found that higher ethical standards are identified in organization that usually have frequent procurement audits culture as compared to the organization that don't have the culture (Nyeko et al, 2011).

Davies (2010) conducted an empirical study which stated that abuse of position by government officials for personal gains leads to accumulated corruption. He asserts that corruption mainly takes place during government projects viewing, in taxation, and during the procurement processes since this is the time bribe are given to the officials. In a study conducted by Badenhorst (1994), actions by managers, ethical climate within an institution and lack of policy on company ethics are among the main factors that contribute to public institution unethical behaviors.

2.5 Records Management on procurement and implementation of the tendering process in public institutions.

Bradsher (2004) defined records management as a place where the general administrative management takes places.it deals with ensuring that organization achieves economic and efficiency in the creation, maintenances, use of records, and disposal of records during

their life cycle. Records management is related to the documentation in terms of input, processes and the output in which the documents are stored for standard measurement in relationship to benchmarking.

Bradsher (2004) further points out that records management can be used to improve records administration throughout the lifecycle of the records; it can also be used to prevent uninformed destruction of records and also assist in preserving adequate documentation of organizational policies and programs. Quality of records can be improved while the quantity reduced by maintaining proper records management which ultimately facilitates access to information for research (ISO 15489-1:2001(E)).

Records management within an organization entails coming up with policies and standards, delegation of responsibilities and authorities, designing, implementation and administration of specialized systems for management of records. According ISO 15489-1:2001 (E) any needed business activity information which can be used for decision making enhancing accountability and the support of business subsequent activities can be obtained from the records management system.

Records keeping permit procurement entities to: manage businesses in a way that they will be accountable and efficient; supports policy formation; supports decision making; gives room for continuity in case of a disaster; maintenance of corporate memory, provides fast, accurate and reliable access to information that is relevant and properly contextualized and finally ensures that redundant records are destroyed routinely (Rembe, 2011).

Any legal challenge on finance losses facing an organization are reduced by Sound Record Management System hence promoting efficiency and effectiveness in both the human resources as well as the space resources through proper coordination of available information. Record management system is also very vital in the tendering process as it enhance transparency and responsibility. Record keeping in processes of procurement assists an organization to address weaknesses and provide guidance for best practices.

David (2005) points out that organization need an in-depth understanding of business reengineering processes and ICT trends and must understand that the products of the

moment mainly are the record system. He further asserts that electronic system are important in the business support and should not be confused with the systems of procurement in document management as they form the base for future of records management.

Procurement entities (PEs) should make sure that availability of records is maintained to enhance the documentation evidence as per the requirements the working and efficient managing systems which in turn enhances procurement performance. The record control system need to be designed in a manner that facilitates identification of records, storage of records, protection of records, retention of records and finally disposition of records.

According to Millar (2009) records management solutions helps in tracking, retrieval and storage of important documents. The solution is vital for successful business following the many challenges and threats organizations are today faced with. In Kenya a study was conducted in the public sectors on the main factors that influence the procurement performance (Chimwani, Iravo & Tirimba, 2014). The main objective of the study was to find out how the procurement performance is influenced by the records management systems. The study engaged of 60 State Law Officers as the target population drawn from 7 departments. The study concluded that records management was a vital factor in procurement performance. Chimwani, Iravo and Tirimba (2014) in their study recommended the need for accelerated reforms with the view of stream lining and automating the procurement processes.

Ayoti (2012) points out in a study that focused Kenya Highway Roads Authority, Kenya Urban Roads Authority as well as Kenya Rural Roads Authority in Central Region Nyeri County the main factors in the public sector that affect effective tendering process. The study aimed at establishing the influence of records management on effective tendering process. Thus the study recommended the need for training of all procurement staff in order to provide knowledge on procurement processes.

2.6 Supplier selection in procurement and implementation of tendering process in public institutions.

Weken et al., (1997) defined the supplier selection as a process followed by the institution to select the needed supplier to acquire important materials needed to facilitate outputs of the institutions. Suppliers' capabilities are assessed in order to have the most suitable suppliers. Most institutions face problems of supplier selection at the beginning of their business activities. Supplier selection is a resource and time consuming procedure but still it's considered as the key factor in the success of the company. Currently companies are in need of reliable and efficient supply networks for purposes of strengthening the competition bases. Promotion of customer care and increased profit are usually contributed by the efficient and reliable supply networks which are based on the supplier relations (Jordan, 1995).

Competitiveness between supply chains is influenced by rapid technological changes, customer requirements, international competitors as well as short product lifecycle which companies must struggle to counter through minimizing waste, minimizing costs together with focus to the core competences. The supplier selections and evaluation main objectives should always be used in reduction of procurement risk as it reduces overall value to the company buying. The supplier selection process begins with acknowledging the need for supplier selection followed by determination of the criteria for supplier sourcing; identifying sources of potential suppliers; shortlisting of selected suppliers; determination of methodology to assess and evaluate suppliers; evaluation and selection of suppliers and finally contract signing with the selected supplier (Gracia, 1997).

Different criteria can be used by procurement entities to assess potential suppliers which include and are not limited to: process and design capabilities of the supplier which involves having up to date and capable products as well process technology to produce required material; reliability and quality; cost; service; management capability; location; financial condition and cost structure; capacity; planning and control system; environmental regulation compliance; supplier section scorecards; long-term relationship potential and last but not least willingness to share technologies (Wan, 2008).

According to the certified manager of quality handbook (pages 492-493) different methods can be used by procurement entities to determine whether a potential supplier fits the criteria and this include: visiting the supplier by the management; discussion with other clients served with the supplier before; evaluation of samples obtained from the supplier; requesting a formal quote from the supplier having given the specification.

Supplier selection should take different approaches depending on the critically of the products or service being acquired and to the purchasing strategy adopted by the institution (Van Weele 1985, Stannack and Osborn 1997, Marbert 1997). If the products being procured are not technical then competitive bidding and the suppliers can be selected based on their offer. Competitive strategy is still appropriate where the product being procured is technical and the relationship of the supplier and client is that of mutual dependence (Newman 1988, Dobler and Burt, 1995).

A study by Stanley and Wisner (2009) focused on various businesses. The study's findings showed time delivery and quality are precarious purchasing attributes of evaluation of performance. A study by Wang, Samuel and Dismukes (2004) has pointed out that apart from lead time and quality as shown by Stanley and Wisner (2009) revealed that joint expansion, culture, optimum cost, communication and trust are significant factors affecting evaluation of purchasing performance.

The study by Wang *et al.* (2004) additionally shows that that the past experiences of suppliers, technical capabilities, production costs as well as transportation costs contribute significantly to the process of supplier selection. The study done by O'Brian & Ghodsypour (2008) concurred that services' quality and that cost are critical factors that determine the suppliers' selection processes' credibility, hence; leading to quality and cost to be leading in suppliers' selection processes. A study by Weber (1991) concluded that service quality is the greatest criterion, and is followed by cost and delivery on performance. Weber (1991) study further showed that delivery, quality, just-in-time philosophy and capacity make up a significant criterion for selection of suppliers.

A study carried out by Talluri and Narasimhan (2001) that focused on suppliers' selection methods has suggested that criterion searches have two main views including the

conceptual and empirical views. A study by Talluri and Narasimhan (2001) established that cost may not be used as the main criterion for selection of suppliers. A study by Lehmann and O'Shaughnessy (1982) suggested five criteria for use in the process of selecting suppliers that include economy, performance, plenitude, social norms as well as agreements.

Patton (1996) study suggested seven criteria for use in the evaluation process of suppliers including: quality, price, sales support, delivery, technologies, equipment, order processes as well as the financial position of the supplier company. Upon evaluation and identification of suppliers, analytical techniques are utilized in suppliers' selection processes. Analytical methods usually vary from mathematical programming procedures to linear weighting procedures.

A study done by Mwikali and Kavale (2012) in relation to factors influencing selection of suppliers established that technical capabilities, cost, quality valuation, the profile of an organization, level of service, the profile of the supplier as well as various risk factors affect the suppliers' selection processes. The study concluded that technical capability, cost, and materials' quality as well as the supplier's profile are significant factors that affect the process of supplier selection. The study gave recommendations that because selecting suppliers is a complex process, there is need to adopt several criteria in decision making process when selecting suppliers

2.7 Theoretical Framework

Theoretical framework is defined as a blueprint or guide for a research (Grant & Osanloo, 2014). The theories are based on existing theories in the field of enquiry that reflects the hypothesis of a particular study. The blueprint assists the researcher to build on his or her research inquiry. Theoretical framework also serves as the foundation upon which research is developed. Ravitch & Carl (2016) asserts that theoretical framework aid researchers in situating and contextualizing formal theories into their studies as a guide. Theoretical framework therefore guides the researcher on the choice of research design and data analysis programme. According to Akintoye (2015) theoretical framework also assists the researcher in finding the appropriate research approach, data analysis

techniques and in addition makes the research findings more meaningful and generalizable.

2.7.1 Innovation Diffusion and Technology Acceptance Theory on Technology

This theory was developed by Rogers (1962). The theory explains that innovation entails carrying out processes that are aimed at causing enhanced economic growth. This theory explains that innovation is an idea that is usually considered to be new by personalities. A definition given by Andreeane and Swaminathan (2007) showed that innovation constitutes of technological, commercial and financial activities, scientific, organizational activities that are essential in creating, marketing and implementation strategies of developing improved and new improved processes and products.

Innovation, as it emphasizes on abilities for developing more effective and improved methods of working out things has been considered as a main element. The theory has classified innovation adopters into various classes. One is innovators, which entails individuals wanting to be in the first position for trying out novel innovations. First adopters normally signify views leaders. The second majority constitutes of individuals wanting to get evidence which shows that indeed new innovations work before adoption. The late majority constitutes of skeptical individuals that only adopt innovations after they have been tested other people. The laggards are the last category constituting of extremely skeptical individuals towards change, and are usually a very problematic group to work with in innovation processes.

A study by Les Robinson (2009) shows that from the propositions of the innovation theory, rates of adoption of innovative strategies is regarded relative to possessed advantages by organizations, complexity, compatibility of trial ability in novel approaches and lastly stakeholders observability within communal systems. Communication, that conveys, generates and shares statistics that relate to ground-breaking creativities in organizations is a component for consideration that is coined with time in relation to durations involved in innovative decision processes.

2.7.2 Utilitarian and Deontological theory on ethics

Deontological and utilitarian theories constitute the main ethical theories specifying and justifying moral principles and rules. Utilitarianism also refers to consequentialism that is a moral-related theory that was brought up in the contemporary domain in Jeremy Bentham (1749-1833) writings as well as those of John Stuart Mill (1807-1874). Utilitarianism theory of ethics is classified into several varieties. Utilitarian morality theories consider that no moral individual actions are fundamentally correct or incorrect, nonetheless, the scope to which they are correct or incorrect as regards acts or rules are exclusively an issue of the total non-morally good examples, for instance happiness, knowledge, pleasure, health and satisfaction of a person's desires generated in the outcome of carrying out certain acts or following formulated rules.

Utilitarianism ethics theory postulates that morality results from non-moral goods, which produce consequences from moral actions as well as rules; moral duties are instrumental as opposed to being intrinsic. A study by Velasquez (2001) emphasizes utilitarianism relates to actions that are considered to be correct from ethics view point, when the total utilities sum created by those acts become superior than all the utilities created by other acts that agents would have accomplished in their place. Hence; Utilitarian theory could be utilized in to justifying punishments of blameless individuals or even enslave minor groups of persons, if the act of the group maximizes on outcomes.

Ethics that are deontological are connected with contemporary deontology. Immanuel Kant, also referred to as a categorically imperative individual was seeking for excellent principles applying to all human beings. His opinion was that humans should be dingily treated and respected for the reason that they have certain rights. Deontological ethics have shown that persons are charged with the responsibility of respecting others and treating them in the way they prefer, and as they will also want to receive such treatment from others. The main conception in these ethics is that; it is crucial to make sure that individuals align to their objective duties and obligations. It also suggests that when individuals face ethical-related situations, it is good for them to simply identify their duties and make essential decisions. E Ethics o deontology are faced with some challenges including; conflicts that arise when lack of agreement on philosophies involved in decisions prevail, consequences of making correct

decisions leading to unscrupulous results, and ultimately the identification of choices that have to be taken at the time when there is conflict related to duties. Organizations desiring to depend these ethical systems require to contemplate on the aforementioned that arise for the adoption of the above outlined system. Notwithstanding challenges that confront deontological-related ethics, the model remains as the sturdiest prototypical model for functional public relations related ethics.

A study by Fitzpatrick and Gauthier (2006) revealed that practitioners should have a foundation for judging the appropriateness of decisions made during business operations. There is great need to have ethical principles as well as rules that should be adopted from important standards defining public relations professionalism. Bowen (2003) emphasizes that deontological ethics have their basis on the moral independence of persons that is identical to encroachment autonomy in public relations, which pursues to be exceptional. The constancy in the philosophy offers this theory a compacted theoretical underpinning. Deontology is essentially falls within the scriptures, ordinary moral laws and institutional laws.

Deontological ethics phrase comes from the Greek word Deon that implies compulsory duty. The theory entails three significant characterizes; responsibility needs to be carried for the duty's sake, the appropriateness or inappropriateness of acts or rules are at least in portions matter to individuals' fundamental ethical characteristics of that specific actions or rules. Lying acts, promise breaking acts or even murder acts constitute incorrect intrinsic acts, hence; we are charged with the obligation of not carrying out some of the things in the daily operations. Deontology ethical theories further hold that outcomes of any actions are pertinent in assessment of countless acts that are dedicated, but the outcomes may be able to make acts correct like utilitarianism ethical theories.

This theory additionally states that outcomes are the ones that assist us in determining the actions that are more significant in maintaining values within our responsibilities. Outcomes assist us to find out what our responsibilities are, though they don't dictate specific characteristics of responsibilities. The theory works in a belief that human beings should be treated as intrinsic objects of moral values; which implies that they are ultimate on their own, and certainly not a way to another ultimacy, a conception that becomes

quite problematic to validate in cases like those of theological doctrines related to the man's creation in the image of God. Nonetheless, despite the fact that humans are ultimate in themselves is either vindicated or unjustified, this theory related to ethics has the implication that human beings possess an intrinsic value within them.

2.7.3 Record Management Theory

This theory was developed by Vakkari and Cronin (2000). They also attempted to come up with models for the present record management status. Hareand (2002) puts that the record management concept has been formulated on a two appropriate body's structure of knowledge, the first one focusing on record management in terms of a technique for management, and the other one being under the influence of archival viewpoints. The definition of conceptual frameworks is well, which continue underlying current Record management practices.

A study by Baje (2003) presented that record management theories indicate that management of electronic records is hampered by numerous difficulties, one of the main ones being the inability to forecast future technological advances. Managers in charge of keeping records for that reason are required to be cautious enough so that they can have the ability to decide on hardware, software, and storage media as well as documents techniques that can be used for records preservation. Bearman (2005) suggests that the solution to the challenges faced by this theory entails to ensuring that proper values are recognized for effective documentation and intellectual control, which arouse norms that are beyond software. Electronic record's value as well need identification before their development moment, therefore; ensuring that which have tolerated worth as records are properly identified before records are created.

Identifying the importance of electronic records and keeping records which have tolerated worth as Erlandsson (2002) proposed refers to the conception and pre-creation stage. Records are likely to fail to continue if not well acknowledged and utilizing the above process (Langemo, 1999). Management of records management is advantageous to governments whose missions are connected to and compassionate of the organizational mission entirely (Popoola, 2000). It is critical to highlight the effect of management of

records as well as the roles of other organizational arms. Such roles as stated by Gross (2002) are inclusive of activities and employees needs requirements and access to records. The effects of information-associated programs like data processing, MIS, the archives and library.

The outcome of this is that the theory of records management has a likelihood of being sterile and incomplete unless it is related to the organization as a whole. Public organizations, therefore; have the ability of creating superior attentiveness of the available formation; where it is being stored; how much information is needed and what information can be used for value addition to customers. Records management is therefore a technique used in identifying all the existing information within an institution hence providing data that enable assessment of available sources which help prioritize decisions for better delivery, improved organization and adequate accessibility of information (Enwere, 2002).

2.7.4 Supplier Selection Model

Araz and Ozkarahan (2007) proposes a supplier selection model divided into two phases; the first is where products or services being focused on and used by the agent are placed into classes and the second phase is where critical products or service having been selected, the best supplier can be chosen. In the first phase, the decision maker places the products supplied or outsourced services into classes as per the requirements and criteria he or she has set. The objective is always to ensure that goods and services supplied are classified according to the level of their strategic impact on the company's business.

The model begins by defining the focus of analysis whether for products or services given the needs of the institution. The alternatives which are the products or services to be considered in the analysis are then selected after the definition has been made. A multicriteria method is then applied so as to classify the alternatives according to the decision maker's preferences. The alternatives then are classified into one of the three pre-defined classes: high impact, medium impact and low impact depending on the institutions strategic objectives (Vinodh, Ramiva and Gautham, 2011).

The second phase of the model involves choosing one of the three approaches which is suited to the respective class of products or services determined within the first phase. The approach to follow is usually different depending on the class. For products or services of lesser strategic impact, the selection of suppliers can be performed by considering the cost criteria technique. For those products or services that are most vital for the institution results, a multicriteria analysis for ranking suppliers is proposed (Schramm and Morais, 2012).

Basnet and Weintraub (2009) points out that products or services with high impact have direct impact on the institution's results and more attention need to be given to aspects of their supply. Selection of the products or services in which an analysis will be performed must be done after which suppliers must be defined. The next procedure involves determining the criteria to be used in the analysis taking into consideration the need for a partnership between the institution and the suppliers of the service or product considered.

The officer in charge of the analysis need to determine the most appropriate issue to be considered as per the business needs. The issues to be considered include but are not limited to: selection of suppliers, sorting of suppliers and classification of suppliers which must be in accordance with the nature of the problem faced within the institution, the characteristics of the scenario, the profile of the issue and the decision makers views. A multicriteria decision support method then needs to be selected and the method chosen need to be applied considering the various alternatives with respect to the criteria selected (Alencar and Almeida, 2010).

Medium impact products or services on business results are allocated in the second class. These products or services do have a low importance level than those allocated to the high impact class but careful considerations need to be done. Product or service selection must be done which will be used to evaluate and define who the potential suppliers will be taking into consideration the criteria that will be most appropriate the problem, defining the multicriteria method and last but not least the method application, supplier selection, sorting or supplier ranking (Araz and Ozkarahan, 2007).

The final classification basically allocates products or services that have low impact on business results. This kind of products or service contributes to problems which do not have a high impact on the institutional results therefore maintaining a long or medium term relationship with these kinds of suppliers is not necessarily required. The model therefore considers only cost as the only criteria for selecting suppliers. The decision maker has to therefore select the product or service to be considered; define the suppliers to be evaluated; obtain a price quotation from the suppliers who meet the minimum requirements and finally select the supplier (Saen, 2007).

2.8 Conceptual Framework

Conceptual framework is defined as a detailed description of a phenomenon under study accompanied by a graphical or visual depiction of the main variables of the study (Mugenda, 2008). Young (2009) points out that conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variable. In this study, the conceptual framework seeks to examine the factors influencing implementation of tendering processes in public institutions in Kenya.

According to (Luse, Mennecke & Townsend, (2012) conceptual framework makes it easier for the researcher to define and specify the concepts under study with ease. Conceptual framework further aids the researcher to clearly point out a series of action to be carried out in the research study (Dixon, Gulliver & Gibbon, 2001). Akintoye (2015) asserts that conceptual framework is mostly used by researchers when existing theories are not applicable or sufficient in creating a firm structure for the study.

Conceptual framework further assists the researcher to identify and construct a worldwide view on a phenomenon to be investigated (Grant & Osanloo, 2014).

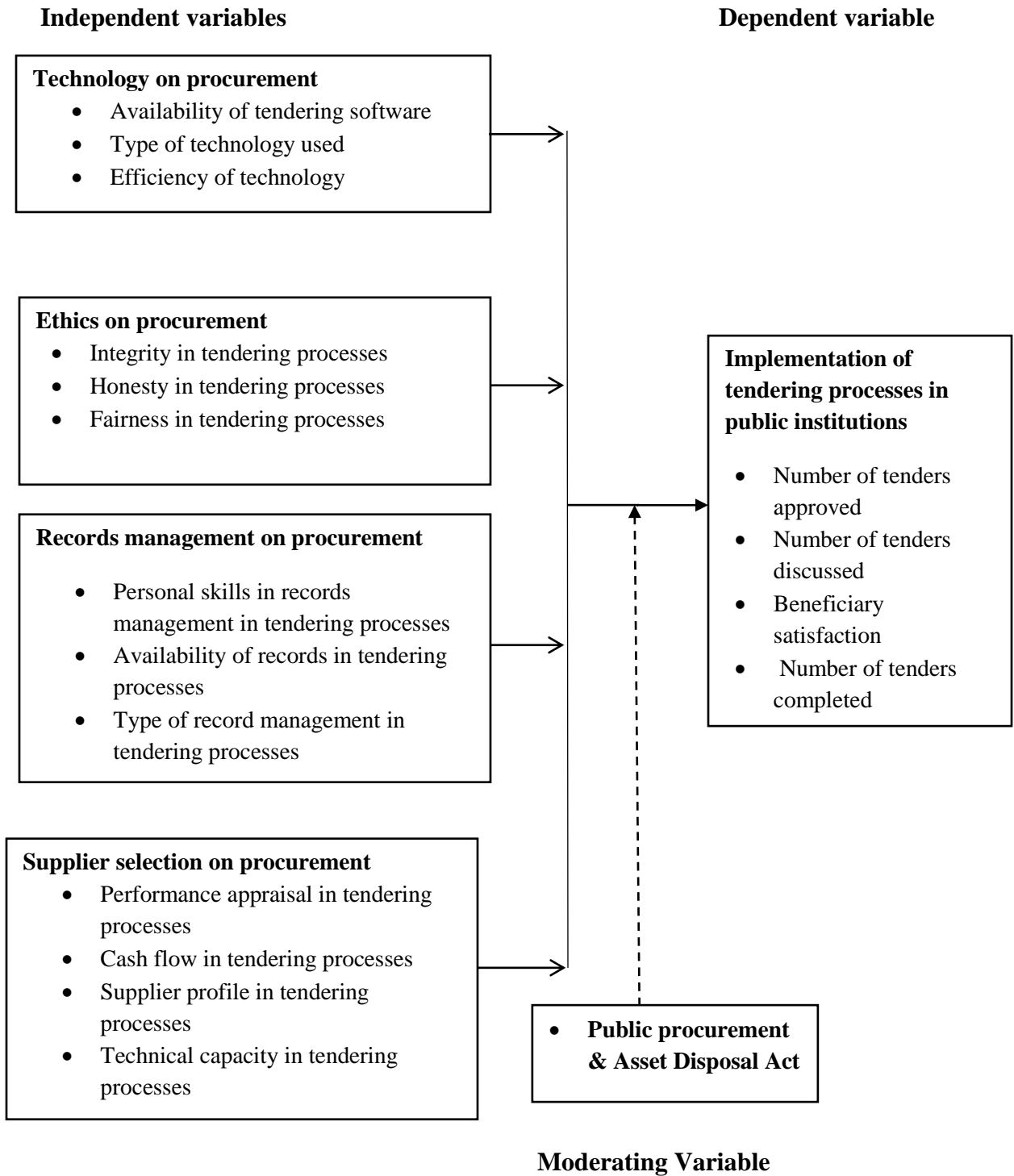


Figure 2.1: Conceptual framework on factors influencing implementation of tendering processes

2.9 Knowledge gap

The literature reviewed from different scholars reveal numerous research and knowledge gaps. Research studies that have been previously done do not indicate how adoption of technology has managed to reduce inventory investments, maintain customer service levels and how it contributes to product optimization. Research studies have not indicated how ethics practices in institutions have been able to hinder problems such as lack of transparency in competition among suppliers, inappropriate use of procurement methods, air supply of goods, services and works, conflict of interest among players in the tendering process, abuse of the office, dishonesty among employees, lack of accountability in ethical decision making and lack of diligence and fairness.

Research studies reviewed have failed to point out how records management influences tendering processes in public institutions. The research studies do not specifically point out the best records management system that impacts positively the tendering processes. The studies reviewed have not identified in particular the best supplier model adopted by institutions and that which impacts positively the tendering processes. The reviewed research studies have not indicated how supplier selection has been able to reduce procurement risk and maximize overall value for money. The reviewed research studies have failed to indicate how institutions have been able to deal with supplier selection issues such as supplier relationship management, supplier performance evaluation, evaluation of potential suppliers, selection of the right supplier and finally finding the suppliers. The reviewed studies have failed to finally indicate best practices on implementation of tendering processes in public institutions.

These reviewed research studies have therefore left a huge gap which needs to be filled through further studies. Given the above report on deficiencies in research on the factors influencing implementation of tendering processes, it becomes predominant and to the point to study the factors which influence implementation of tendering processes in public institutions.

Table 2.1: Matrix of Literature Reviewed

Variable	Author (year)	Title of study	Findings	Knowledge gap
Technology in procurement	Kissang (2014)	Factors affecting the tendering process in manufacturing company.	Findings of the study were that inadequate technology affected the tendering process to a large extent.	The research study do not indicate how adoption of technology has managed to reduce inventory investments, customer service levels and how it contributes to product optimization
Ethics in procurement	Basheka and Tumutegyereize (2010)	Study was on public procurement ethical standards in Uganda	Findings were that organizational culture is directly linked to the causes of public procurement corruption	Research studies have not indicated how ethics practices in institutions have been able to hinder problems such as lack of transparency, inappropriate use of procurement methods, air supply of goods etc.
Records management in procurement	Chimwani, Iravo and Tirimba (2014)	Factors influencing procurement performance in the Kenya public sector	The study findings were that records management was a vital factor in procurement performance	Research studies have failed to point out how records management influences tendering processes in public institutions. The studies do not specifically point out the best records management system that impacts positively the tendering processes.
Supplier selection in procurement	Mwikali and Kavale (2012)	Factors affecting supplier selection	The study conclusion was that cost criterion, technical capability, quality of materials and profile of the supplier were key factors affecting supplier selection.	The reviewed studies do not specifically point out the best records management system that impacts positively the tendering processes. The studies have not identified in particular the best supplier model adopted by institutions and which impacts positively the tendering processes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research methodology that was used in conducting the study, this include: research design, target population, sampling procedure, methods of data collection, validity and reliability, methods of data analysis, operational definition of variables and ethical issues.

3.2 Research design

The study adopted a descriptive research survey design which provided an in-depth analysis of the phenomenon. A descriptive research survey design is a scientific technique of investigation in which data is collected and analyzed in order to describe the current conditions, terms or relationships concerning a problem of a given single dynamic scope (Mugenda and Mugenda, 1999). The study adopted this approach on the factors influencing implementation of tendering processes in public institutions with reference to Ministry of Education, Kenya. The design was appropriate because it showed the relationship and examined how the factors support the problem within the Ministry of Education.

3.3 Target Population

The target population for this study was 300 staff drawn from the Ministry of Education directorates that work with the supply chain department. These directorates were classified into directorate of administration, directorate of primary education, directorate of secondary education, directorate of adults and continuing education, directorate of school audit and finally directorate of quality assurance. This was decided on because all these directorates have a direct relationship with the procurement department. The classification and categorizations of the target population are shown in table 3.1.

Table 3.1: Target population

Target group	Target population	Percentage
Directorate of administration	130	43.3
Directorate of primary education	40	13.3
Directorate of secondary education	30	10.0
Directorate of adults and continuing education	30	10.0
Directorate of school audit	20	6.67
Directorate of quality assurance	50	16.67
Total	300	100

Source HR Manual: MOE, 2018

3.4 Sample Size and Sampling Procedure

This section describes the sample size and sampling procedures to be used in the study.

3.4.1 Sample Size

Cooper and Schindler (2006) defines a sample as a group of cases, participants, events or records consisting of a portion of target population carefully selected to represent that population. The sample size of this study was 30% thus constituting 90 respondents who formed the sample size. The 30% sample size was based on Coopers and Schindler (2006) theory of sampling. Statistically, for generalization to take place; a sample of at least 30 respondents must exist. Kothari (2004) argues that if well chosen, samples of at least 10% of a population can often give good reliability. The respondents were expected to provide reliable information on factors influencing implementation of tendering processes in public institutions.

3.4.2 Sampling Procedure

Sampling is the process of selecting units like people, organizations among others from a population of interest so that by studying the sample the researcher is able to fairly generalize his results back to the population from which they were chosen(Trochim, 2006). A stratified random sampling was used to select the sample population since it's not selective. The study sample population was 30% which constituted 90 respondents that formed the sample size.

According to Orodho (2003), stratified sampling is suitable where the population from which the sample is drawn is heterogeneous. This means that out of the 300 directorate staff members (respondents), the researcher used 30 respondents as the sample size from the Ministry of Education Directorates.

Table 3.2 demonstrates a sampling size of 30% of the population taken as a sample.

Table 3.2: Sampling Procedure

Target group (30%)	Target population	Sample size
Directorate of administration	130	39
Directorate of primary education	40	12
Directorate of secondary education	30	9
Directorate of adults and continuing education	30	9
Directorate of school audit	20	6
Directorate of quality assurance	50	15
Total	300	90

3.5 Research instruments

According to Cooper and Schindler (2011) methods of data collection vary depending on several attributes of the subjects, research topics, problem questions, study objectives, design and expected study outcomes. Cooper and Schindler (2011) further assert that each data collection procedure collects specific data. Primary data on the factors

influencing implementation of tendering processes in public institutions was collected while secondary data was obtained from relevant literature review from dissertations, journals, magazines and internet.

Semi structured questionnaires was used to collect primary data. The questionnaires were constructed with both open and closed ended questions to enable quantitative and qualitative analysis. The questionnaire was divided into six main sections: section A sought to identify the respondent's personal information; section B: technology on procurement, Section C: Ethics on procurement, Section D: Records management on procurement, Section E: Supplier selection on procurement, Section F: Implementation of tendering processes in public institutions.

3.5.1 Pilot testing of instruments

The researchers carried out a pilot study to pretest and validate the questionnaire and the interview guide to be used. According to Mugenda and Mugenda (2003) a pilot test is a method that is used to test the instrument before carrying out a research. An initial test is conducted with a pretest sample being between 1% and 10% depending on the sample size. This was therefore to be in line with a descriptive research survey design methodology employed in this research project. The researcher selected a pilot of 9 individuals from the target population at the Ministry of Education. This was achieved by stratifying the individuals according to the level of education, number of years worked, gender, and geographical information on individuals.

3.5.2 Validity of instruments

Somekh and Cathy (2005) define validity as the degree in which a sample of test items represents the specific concept that the researcher is trying to measure. This study adopted content validity which sought to measure the degree to which data collected using a particular instrument to represent a specific domain of a particular concept. Mugenda and Mugenda (1999) points out that professional expert in a particular field can be used in measuring content validity. In demonstration of the validity of the research instruments the researcher sought opinion of supervisors as experts who checked the questions in the instrument versus the objectives of the study.

The instrument is usually given to two different experts; one group asked to do an evaluation of the concept the instrument is seeking to measure while the other group of expert is requested to establish whether or not the set of items corresponds to the concept under study (Mugenda and Mugenda, 1999). Validity is therefore enhanced by a revision and modification of the research instrument. Enhanced validity is determined by the presence or absence of systematic error in the data. Construct validity is where experts such as supervisors are used to check the clarity of questions in the questionnaires in terms of ambiguousness, clarity and instructions to guide the respondents when filling questionnaires.

3.5.3 Reliability of instruments

Reliability according to Walliman and Nicholas (2011) is defined as the consistency of measurement that is basically the extent to which a particular experiment is carried out and a test will produce the same results on repeated trials. Reliability is increased by adding so many similar items on a measure by testing a diverse sample of individuals and by using uniform testing procedures.

A random error in most cases influences reliability. A random error is simply a deviation from the true measurement due to factors that the researcher has not effectively addressed. In circumstances where there is an increase in random error, the reliability decreases (Mugenda and Mugenda 2003). This study conducted reliability by using the consistency within the Ministry to compare test items that measure the same construct. This was achieved by having questions that seems similar to another test question in order to gauge reliability.

3.6 Data collection procedure

Primary data was gathered through interviewing key respondents within the various directorates using an interview schedule. An interview schedule is schedule with open-ended questions which allowed the respondent to use his/her own words in responding to the questions. The respondents were allowed to provide in-depth information based on their knowledge on implementation of tendering processes in public institutions. The study distributed 90 interview schedules to sampled staff working at the various

directorates. Out of the 90 interview schedules distributed, 82 sample respondents filled in and returned the interview schedule while 8 respondents did not return the interview schedule therefore contributing to 90% response rate. The high response rate was attributed to the data collection procedure where the interview schedule was by self-administration and immediately picked once the respondents fully filled the interview schedules.

3.7 Data analysis techniques

Data analysis begins once collected data is received from the respondents. Data formulation includes the process of editing, coding and data entry which ensures that accuracy of data is achieved. According to Kothari (2004), data analysis involves editing, coding, classification, and tabulation of collected data so that it can be analyzed easily. The data was subjected to both qualitative and quantitative analysis techniques through use of Statistical Package for Social Science (SPSS). The raw data was edited, and entered in the SPSS computer program by assigning symbols in a process referred to as coding. Thereafter, generate relevant frequencies, descriptive, charts and graphs. The responses from closed-ended questions were categorized as numerical data and open-ended questions categorized as string (text) data.

The study used Pearson's correlation coefficient (r) technique to analyze the degree of relation between independent (technology, ethics, records management, and supplier selection) and dependent (implementation of tendering processes) variables. The correlation coefficient was meant to help the researcher understand the magnitude and direction of the relationship between the independent variable and dependent variable and the bigger the co-efficient, the stronger the association between the two variables. The correlation analysis was done by use of SPSS computer programme. Mugenda and Mugenda (2003) assert that computation of a correlation coefficient yield a statistic that ranges from -1 or 1 and the statistics is called a correlation co-efficient.

3.8 Ethical consideration

Mugenda (2003) points out that a researcher must always be cautious in revealing findings of his or her research not to impede on the working relationship he or she has

with the sponsor. This is true when the information findings focuses on an organizations policy and could reveal sensitive matters about the employees or organization. Mugenda further asserts that there is need to collaborate well with other researchers and at the same time upholding the intellectual rights of the researcher.

The study having adopted an appropriate methodology, relevant ways of collecting data, data analysis, methods of presentation and interpretation of findings, the data was reported in form of a proposal, project report, thesis or book. The researcher observed appropriate values during all these stages while conducting the research process. Failure to observe these values could result into research misconduct.

3.9 Operationalization of variables

General objective of the study was to establish the factors influencing implementation of tendering processes in public institutions in Kenya. The study variables consisted of both dependent and independent variable. Dependent variable in the study was implementation of tendering processes and the independent variables included technology, ethics, and records management and supplier selection.

Key indicators for the dependent variable included number of tenders approved, number of tenders discussed and finally beneficiary satisfaction. The indicators adopted for the dependent variable were measured using ordinal measurements while the analysis was done using mean, percentages, standard deviations, Pearson Product Moment coefficient and T-tests.

Ordinal scale was used to measure all the independent variable indicators. The study analysis for the variables involved the use of mean, percentages, standard deviations, Pearson Product Moment coefficient and T-tests.

Table 3.3: Operationalization of variables

Objectives	Variables	Indicators	Measurement Scale
To assess the influence of technology in procurement on implementation of tendering processes in public institutions	Independent Variable Technology in procurement	<ul style="list-style-type: none"> • Availability of tendering software • Technology in procurement used • Efficiency of technology in procurement 	Ordinal Nominal
To determine the influence of ethics in procurement on implementation of tendering processes in public institutions.	Independent Variable Ethics in procurement	<ul style="list-style-type: none"> • Integrity in tendering processes • Honesty in tendering processes • Fairness in tendering processes 	Ordinal Nominal
To examine the influence of records management in procurement on implementation of tendering processes in public institutions	Independent Variable Records management in procurement	<ul style="list-style-type: none"> • Personal skills in records management in procurement • Availability of procurement records • Type of record management technique in procurement 	Ordinal Nominal
To establish how supplier selection in procurement influences implementation of tendering processes in public institutions	Independent Variable Supplier selection in procurement	<ul style="list-style-type: none"> • Performance appraisal • Cash flow • Supplier profile • Technical capacity 	Ordinal Nominal
To establish factors influencing implementation of tendering processes in public institution in Kenya.	Dependent Variable Implementation of tendering process	<ul style="list-style-type: none"> • Number of tenders approved • Number of tenders discussed • Beneficiary satisfaction • Number of tenders completed 	Ordinal Nominal

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Introduction

This chapter provided the presentation, analysis and interpretation of all the data collected from the area of study during the research period. Data was collected through the questionnaire instruments. The quantitative data was analyzed using descriptive statistics and was presented in the form of tables. The qualitative data was analyzed using content analysis. Results of the data analysis provided information that formed the basis for discussion, conclusion, and interpretation of the findings and recommendations of the study.

4.2 Questionnaire Return Rate

Out of 81 respondents targeted for the study, 70 questionnaires were duly filled correctly and returned for analysis. This constituted 86 percent of the return rate. This return rate was over and above what is recommended by Coopers and Schindler (2000) who says that 75% return rate is acceptable in social sciences.

Table 4.1: Response Rate

Response rate	Percentage	Frequency
Questionnaires issued and returned	70	86
Questionnaires Not returned	11	14
Total number of respondents	81	100

The study had a high response rate of 86 % indicating that only 14% of the respondents did not participate in the study. The high response rate was attributed to the fact that the researcher himself administered the questions and as such had an opportunity to clarify on areas which would have otherwise cause lack of cooperation.

4.3 Reliability Test

Kumar (2011) explains that the goal of reliability is to minimize the errors and biases of a data collection instrument. To ensure reliability of the research instrument, the questionnaire was administered to 9 respondents which was 10% of the sample size selected at random in ministry of education with the potential characteristics of the respondents that were excluded from final research. Saunders & Lewis (2012) states that respondents in a pilot test do not need to be statistically sampled. The results of the pilot study are shown in Table 4.1.

Table 4.2: Reliability Test

Variable	Number of Items	Cronbach Alpha
Technology on procurement	4	.836
Ethics on procurement	5	.901
Records management on procurement	5	.789
Supplier selection on procurement	4	.963
Implementation of tendering processes	5	.938

The computed Coefficient Alpha Value of > 0.7 is considered acceptable in the test of reliability (Garson, 2012). Results presented in table 4.2 indicate that all the variables attained the acceptable and recommended level of above 0.7. Supplier selection on procurement had the highest reliability at 0.963 amongst the variables of the study while Technology on procurement had the lowest reliability at 0.836.

4.4 Demographic Information of the Respondents

Demographic information of the respondents seeks to show the characteristics of the population in terms of gender.

4.4.1 Distribution of Respondents by gender

The table below indicates how respondents were grouped according to their gender in their respective directorates. The study was interested in knowing the gender of the respondents because both genders contribute to decision making with regards to implementation of tendering process. The results are presented in table 4.2 below.

Table 4.3: Gender of the Respondents

Gender	Frequency	Percent
Male	42	60
Female	28	40
Total	70	100

The study sought to establish how respondents were distributed with regard to gender. This was thought to be an important indicator towards the diversity of the respondents. Majority of the respondents 60% were males while females were 40% of the total respondents who participated in the study. This is consistent with the fact that there are generally more men in employment than women and also shows a fair balance where neither gender has occupied all the positions

4.4.2 Distribution of respondents by Level of Education

The respondents were asked to state their level of education. The results are presented in table 4.3.

Table 4.4: Level of Education

Level of Education	Frequency	Percent
Secondary	0	0
Diploma	11	15.9
Undergraduate	31	44.4
Postgraduate	28	39.7
Total	70	100

The study sought to establish the highest level of education attained by the respondents. This was to establish how well the respondents understood the questionnaire and from the findings, it is clear that the Level of Management selected has well educated personnel since 44.4% had undergraduate degrees, while those with postgraduate were 39.7% and diplomas only 10%. This indicates that the majority of employees have necessary level

of education that can indeed enable them respond well to questions on tendering processes in public institutions.

4.4.3 Distribution of Respondents by Work Experience.

The respondents were asked to state the period of work experience. Results are presented in table 4.4

Table 4.5: Work Experience

Duration	Frequency	Percent
5 years & Less	10	14.3
6 – 10 years	20	28.5
11 – 15 years	23	33.3
Above 15 years	17	23.8
Total	70	100

The study sought to establish the number of years the respondents had worked in the organization. This was to establish whether the respondents had knowledge on tendering processes within the ministry. A large proportion of respondents 28.5% had an experience of between 6 – 10 years; another proportion of 33.3% had worked in the ministry for between 11 – 15 years while 23.8% had worked for more than 15 years. Cumulatively 85.7% of the respondents had worked in the ministry more than 5 years meaning they were competent to answer the questions on tendering processes in public institutions.

4.4.4 Distribution of Respondents by Level of Management

The respondents were asked to state their level of management in the institution. The results are presented in table 4.5

Table 4.6: Level of Management

Level of Management	Frequency	Percent
Top Level	29	41.3
Middle Level	41	58.7
Total	70	100

The study sought to establish the Level of Management of the respondents. This was to establish whether the respondents had knowledge on tendering processes within the organization. Top Level and Middle Level were used meaning they were competent to answer the questions on tendering processes within the organization.

4.5. Technology and implementation of tendering process in public institutions

The study sought to assess how technology influences implementation of tendering process in public institution. The respondents were further asked to state the extent to which technology influences implementation of tendering process, and finally how technology has improved performance of the procurement function.

4.5.1 The extent to which technology in procurement influence implementation of tendering processes.

The respondents were asked to state the extent to which technology influences implementation of tendering process. The results are presented in table 4.6 below

Table 4.7:Influence of technology in procurement on implementation of tendering processes

Category	Respondents	Percentage
Very great extent	24	34
Great extent	36	52
Moderate extent	4	5
Little extent	6	9
Not at all	0	0
Total	70	100

The study sought to know the influence of technology in procurement on implementation of tendering processes 34% of respondents said influence of technology is very great extent, 52% said it is great extent, 5% said it is a Moderate extent, while the rest, 9% said it is to a Little extent. This indicates that using technology in procurement has an influence on effectiveness of tendering processes.

4.5.2 Technology has improved performance of the procurement function.

The respondents were also asked to state their opinion on how they feel technology has improved performance of procurement function. The results of the findings are presented in table 4.7 below.

Table 4.8: Technology has improved performance of the procurement function.

Category	Respondents	Percentage
Yes	65	93%
No	5	7%
Total	70	100

The study sought to establish whether technology has improved performance of the procurement function; from the study 93% of respondents agreed that technology has improved performance of the procurement function and only 7% of respondents disagreed.

4.5.3 Technology on procurement and implementation of tendering process in public institutions

The first objective of the study was to assess how technology influence implementation of tendering process in public institution; the respondents were asked to give their opinion using statements in a Likert scale of 1 to 5 Where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent. The outcome is presented in table 4.8.

Table 4.9: Technology on procurement

Statement	Not at all		To a little extent		To a moderate extent		To a great extent		To a very great extent		Mean
	F	%	F	%	F	%	F	%	F	%	
Technology plays a vital role in maintaining customer service levels at low costs.	0	0.0%	11	15.7%	5	7.1%	32	45.7%	22	31.4%	3.92
The management uses technology to positively impact on its operating expenses though product optimization.	2	2.9%	8	11.4%	10	14.3%	29	41.9%	21	30.0%	3.84
The type of technology adopted enables public institutions to reduce inventory investments.	0	0.0%	7	10.0%	4	5.7%	36	51.4%	23	32.9%	4.07
The management value and utilizes technology in order to enhance profitability.	3	4.2%	6	8.5%	2	2.8%	31	44.3%	28	40.0%	4.08
Total		7.1%		45.6%		45.8%		167.2 %		134.3 %	15.91
Average		1.8%		11.4%		11.5%		41.8%		33.6%	3.98

Built on the following interpretation key 1-1.49 = Not at all; 1.5-2.49 = little extent; 2.5-3.49 = Moderate extent; 3.5-4.49 = great extent; 4.5-5 = Very great extent, the aggregate mean score of 3.98 infers that majority of the respondents agreed that using technology in procurement has an influence on effectiveness of tendering processes. The respondents agreed that Technology plays a vital role in maintaining customer service levels at low costs with a mean of 3.92, The management in the institution value and utilizes technology to positively impact on its operating expenses through product optimization with a mean of 3.84, The type of technology adopted enables public institutions to reduce inventory investments with a mean of 4.07 and The management in the organization value and utilizes technology in order to enhance profitability while still assessing its tradeoffs and meeting their customer needs with a mean of 4.08. The results of the study agree with the study conducted by Kissang (2014) on the factors affecting the tendering process in a manufacturing company which concluded that inadequate technology affected the tendering process to a large extent and therefore recommended that the organization should adopt the latest systems to manage their tendering processes.

The results of the study further agrees with that of Ngugi and Mugo (2012) who investigated the internal factors affecting procurement process (Tendering Process) of supplies in the public sector. The study found that procurement process in Kenyan Government Ministries for health care supplies was affected by factors such as; technology to a very great extent. The study concluded that adoption of technology will enhance the process of effective tendering through advertising, sourcing reviews, prequalification, potential for cost savings and greater awareness of new product development. Ngugi and Mugo (2012) further states that adoption of technology in government ministries will ensure transparency, enhanced customer and supplier service, and efficiency.

The results of the study also concur with a study done by O'Connell (2010) on effective use of technology in tendering in an Irish construction industry found out that there is a similar level of e-tendering uptake to that of other countries. The study points out in its conclusion that the uptake was significantly discouraged due to a number of barriers and that the potential cost savings in the Irish construction industry would be achieved

through the application of integrated technology tools in the construction tendering process.

4.6. Ethics and implementation of tendering process in public institutions

Conformity to ethics by institutions improves accountability in decision making since supply chain has the capacity to compartmentalize the various activities which is as a result of solid network of associations. The study sought to assess how ethics influences implementation of tendering process in public institution. The respondents were further asked to state the extent to which ethics influences implementation of tendering process, and finally state the extent to which the various challenges on ethics on implementation of tendering process in public institution

4.6.1 The extent to which ethics in procurement influence implementation of tendering processes.

The respondents were asked to state the extent to which ethics influence implementation of tendering process. The results are presented in table 4.9 below.

Table 4.10: Ethics in procurement and implementation of tendering process

Category	Respondents	Percentage %
Very great extent	24	34
Great extent	36	52
Moderate extent	4	5
Little extent	6	9
Not at all	0	0
Total	70	100

The study sought to establish from respondent extent to which ethics influence implementation of tendering processes in public institutions. The finding presented in the table indicate that ethics influence implementation of tendering processes with 34% saying it is to Very great extent, 52% saying it is to great extent, 5% saying it is Moderate extent and 9% saying it is Little extent.

4.6.2 Ethics in procurement and implementation of tendering process in public institution

The second objective of the study was to determine how ethics influence implementation of tendering process in public institution; the respondents were asked to give their opinion using statements in a Likert scale of 1-5 where 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent. The outcome is presented in table 4.10.

Table 4.11: Ethics in procurement44

Statement	Not at all		To a little extent		To a moderate extent		To a great extent		To a very great extent		Mean
	F	%	F	%	f	%	f	%	F	%	
Strict adherence and conformity to ethics contributes to high accountability in decision making.	1	1.4	14	20.0	22	31.4	18	25.7	15	21.4	3.46
Ethical behavior is vital in public procurement which involves public expenditure and ought to result in value for money.	2	2.9	6	8.6	7	10.0	27	38.6	28	40.0	4.04
The management has put in place ethical standards that supports openness and accountability in procurement processes hence supplier confidence.	3	4.2	10	14.2	14	20.0	22	31.4	21	30.0	3.69
The management in this institution value and utilize code of ethics to reduce costs associated with managing risks.	5	7.1	7	10.0	13	18.6	25	35.7	20	28.6	3.67
Ethics overcomes tendency of compartmentalizing ethical issues in procurement processes	8	11.4	11	15.7	16	22.9	19	27.1	16	22.9	3.34
Total		27.0		68.5		31.7		158.5		214.5	18.2
Average		5.4		13.7		6.3		31.7		42.9	3.64

Table 4.10 presents that respondent's response on how ethics in procurement influence implementation of tendering processes in public institutions. Results indicate that most of the respondents agreed that Ethics in procurement has influence on effectiveness of tendering process in public institutions. The overall mean for this section on ethics of 3.64. Most of them agreed that Strict adherence and conformity to ethics contributes to high accountability in decision making with mean of 3.46, Ethical behavior is vital in public procurement which involves public expenditure and ought to result in value for money mean of 4.04, The management has put in place ethical standards that supports openness and accountability in procurement processes hence supplier confidence with mean of 3.69, The management in the institution value and utilize code of ethics to reduce costs associated with managing risks with mean of 3.67 and Ethics overcomes tendency of compartmentalizing ethical issues in procurement processes with mean of 3.34. The results of the study agree with the study conducted by Basheka and Tumutegereize (2010) on the public procurement ethical standards in Uganda which concluded that organizational culture is directly linked to the causes of public procurement corruption.

The results of the study further concurs with that of Andvig and Fjeldstad (2010) who conducted a study on public procurement ethics in less developed countries (LDCs) through the Norwegian Agency for Development Co-operation (NORAD) and concluded that the public procurement unethical behaviors manifest in terms of direct embezzlement of public funds and the offenses committed are similar. A study with similar outcome is that of Piff et al, (2012) who conducted several studies using experimental and naturalistic studies in the United States of America on factors affecting ethical standards in the public sector and concluded that individuals considered to be upper class in the society behave more unethically than the low class individuals.

4.6.3 Challenges on ethics

The respondents were also asked to state the extent to which the following challenges on ethics on implementation of tendering process in public institution. The results are presented in table 4.11

Table 4.12: challenges on ethics45

Category	Not at All	Little Extent	Moderate Extent	Great Extent	Very Great Extent	Total
Bribery	13	31	12	38	6	100
Coercion	52	36	2	6	4	100
Favoritism	29	31	5	23	12	100
Extortion	46	34	12	5	3	100
Total	140	132	31	72	25	400
Average	35	33	8	18	6	100

Table 4.11 shows that on average, 6 % of respondents felt that unethical practices, that is Bribery, Coercion favoritism and Extortion, are very Great in tendering process, 18% felt are Great, 8% felt are moderate, 33 % are little while 35 % felt are very low.

4.7 Records management and implementation of tendering process in public institutions

The study sought to assess how records management influences implementation of tendering process in public institution. The respondents were further asked to state the extent to which records management influences implementation of tendering process.

4.7.1 The extent to which Records management in procurement influence implementation of tendering process.

The respondents were asked to state the extent to which records management influence implementation of tendering process. The results of the findings are presented in table 4.12 below.

Table 4.13: Records management46

Category	Respondents	Percentage
Very great extent	32	46
Great extent	27	38
Moderate extent	8	11
Little extent	3	5
Not at all	0	0
Total	70	100

The study sought to know the influence of record management on implementation of tendering processes. 46% of respondents said influence of Records management is very great extent, 38% said it is great extent, 11% said it is a Moderate extent, while the rest, 5 % said it is to a Little extent. This indicates that proper Records management in procurement has an influence on effectiveness of tendering processes.

4.7.2 Records Management on procurement and implementation of the tendering process in public institutions

The third objective of the study was to examine how records management influence implementation of tendering process in public institution; the respondents were asked to give their opinion using statements on the Likert scale of 1 to 5 where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent and the summary statistics for the statements are presented in table 4.13.

Table 4.14: Records management⁴⁷

Statement	Not at all		To a little extent		To a moderate extent		To a great extent		To a very great extent		Mean
	f	%	f	%	F	%	f	%	f	%	
The management in the organization uses record management in order to enhance implementation of tendering processes.	0	0.0	0	0.0	6	8.6	35	50.0	29	41.4	4.33
Most of the staff knows the value of record management for they receive training of the current aspects that boost profitability.	0	0	0	0	7	10.0	27	38.6	36	51.4	4.41
Record management promotes efficiency and accountability within procurement entities	0	0.0	0	0.0	10	14.3	21	30.0	39	55.7	4.41
Record management solution assist in tracking, retrieval and storage of important documents	0	0.0	0	0.0	0	0.0	27	38.6	43	61.4	4.61
Employees of the organization are competent enough to design record management systems	10	14.3	13	18.0	10	14.3	22	32	15	22	3.27
Total		14.3		18.0		47.2		189.2		231.9	21.03
Average		2.9		3.6		9.4		37.7		46.4	4.21

An average mean score of 4.21 indicates that majority of the respondents agreed that record management influence implementation of tendering processes in public institutions. Most agreed that the management in this organization utilizes record management in order to enhance implementation of tendering processes with a mean of

4.41 that Most of the staff understands the value of record management for they receive training of the current aspects that enhance

profitability through better understanding of the market with a mean of 4.41, that Record management solution assist in tracking, retrieval and storage of important documents with a mean of 4.61, that Employees of the organization are competent enough to design record management systems that reduce vulnerability of any legal challenge on financial loss hence promoting efficiency with a mean of 3.27. The study is supported by study done by Chimwani, Iravo and Tirimba (2014) who concluded that records management was a vital factor in procurement performance. The results of the study is further supported by a study done by Ayoti (2012) who points out her study on factors influencing effectiveness in tendering process in the public sector focus made on Kenya Urban Roads Authority, Kenya Highway Roads Authority and Kenya Rural Roads Authority in Central Region Nyeri County. The study aimed at establishing the influence of records management on effective tendering process. The study findings indicated that Kenya Urban Roads Authority, Kenya Highway Roads Authority and Kenya Rural Roads Authority in Central Region Nyeri County were characterized by poor records keeping which had an effect on the tendering process.

4.8 Supplier selection and implementation of tendering process in public institutions.

The study sought to assess how supplier selection influences implementation of tendering process in public institution. The respondents were further asked to state the extent to which supplier selection influences implementation of tendering process.

4.8.1 The extent to which supplier selection in procurement influence implementation of tendering process

The respondents were asked to state the extent to which supplier selection influence implementation of tendering process in public institution. The results of the findings are presented in table 4.14 below.

Table 4.15: Supplier selection.

Category	Respondents	Percentage
Very great extent	24	34
Great extent	36	52
Moderate extent	4	5
Little extent	6	9
Not at all	0	0
Total	70	100

The study sought to determine the influence of supplier selection on implementation of tendering processes. 34% of respondents said influence of supplier selection is to a very great extent, 52% said it is great extent, 5% said it is a Moderate extent, while the rest, 9 % said it is to a Little extent. This indicates that proper supplier selection in procurement has an influence on implementation of tendering processes.

4.8.2 Supplier selection in procurement and implementation of tendering process in public institutions

The last objective of the study was to establish how supplier selection influence implementation of tendering process in public institution; the respondents were asked to give their opinion using provided statements in a likert scale of 1 to 5 Where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent and the summary statistics for the statements are presented in table 4.15

Table 4.16: Supplier selection

Statement	Not at all		To a little extent		To a moderate extent		To a great extent		To a very great extent		Mean
	f	%	F	%	f	%	f	%	f	%	
The process of supplier selection is vital in an institutions operational success.	0	0.0	0	0.0	5	7.1	22	31.4	43	61.4	4.54
The management has implemented supply networks that enhance the institutions competitiveness.	2	2.8	10	14.3	9	12.9	20	28.6	29	41.4	3.91
Supply networks contribute to increased profits and promote customer value.	3	4.2	6	8.6	15	21.4	30	42.9	17	24.3	3.57
Supply selection and evaluation reduces procurement risk while maximizing overall value in the institution.	0	0.0	0	0.0	5	7.1	16	22.9	49	70	4.62
Total		7		22.9		48.5		125.8		197.1	166.4
Average		1.8		5.7		12.1		31.1		49.3	4.16

Supplier selection is a key factor in the operational success of any company. The aggregate mean of 4.16 implies that the respondents agreed that Supplier selection in procurement has an impact on implementation of tendering with a mean of process. This is because respondents agreed that the process of supplier selection is vital in an institutions operational success with a mean of 4.54 that the management has implemented supply networks that enhance the institutions competitiveness with a mean of 3.91, that the supply networks contribute to increased profits and promote customer value with a mean of 3.57, and that the supply selection and evaluation reduces procurement risk while maximizing overall value in the institution with a mean of 4.62. The study is supported by study done by Mwikali and Kavale (2012) who concluded

that supplier selection being a complicated process, numerous criteria methods need to be adopted for decision making process.

4.9 Public procurement act

The respondents were asked to state the extent to which public procurement act influence implementation of tendering process in public institution.

4.9.1 The extent to which public procurement act influence implementation of tendering process in public institution.

The respondents were asked to state the extent to which public procurement act influence implementation of tendering process in public institution. The results are presented in table 4.16 below.

Table 4.17: Public procurement act on implementation of tendering processes 50

Category	Respondents	Percentage %
Very great extent	10	14.3
Great extent	13	18.6
Moderate extent	28	40
Little extent	19	27.1
Not at all	0	0
Total	70	100

The researcher sought response from the respondents on the extent on which Public procurement act facilitate implementation of tendering processes in public institutions. 14.3% of respondents said Very great extent, 18.6% said to a Great extent but a majority 40% said it is Moderate extent, while the rest, 27.1% said to a Little extent. This indicates that Public procurement act as a moderating variable does not have a significant influence between the Dependent variable and the independent variables.

4.10 Implementation of tendering process

The researcher sought response from the respondents on the statements relating to implementation of tendering processes in public institutions on the Likert scale of 1 to 5 Where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent and the summary statistics for the statements are presented in table 4.17.

Table 4.18: Tendering Process

Statement	Not at all		To a little extent		To a moderate extent		To a great extent		To a very great extent		Mean
	F	%	F	%	F	%	f	%	f	%	
Tendering in public sector not only involves identification of suitable company to execute a project but also invitation for bidding by interested contractors.	0	0.0	0	0.0	11	15.7	34	48.5	25	35.7	4.20
Effective tendering is based on the principles of competitiveness, fairness, accessibility and transparency.	5	7.1	7	10	15	21.4	27	38.5	16	22.8	3.6
Competitive tendering has led to adoption of alternative procuring methods in the public sector.	0	0.0	4	5.7	7	10.0	37	52.8	22	31.4	4.10
Tender invitation is determined by the complexity, value and product category.	0	0.0	2	2.8	6	8.5	32	45.9	30	42.8	4.31
Tendering process is meant to encourage competition in the public sector.	0	0.0	8	11.4	3	4.3	35	50.0	24	34.3	4.15
Total		7.1		29.9		59.9		235.7		167.0	20.4
Average		1.5		6.0		12.0		47.1		33.4	4.08

Tendering in public sector not only involves identification of suitable company to execute a project but also invitation for bidding by interested contractors with a mean of 4.20, Effective tendering is based on the principles of competitiveness, fairness, accessibility and transparency with a mean of 3.60, competitive tendering has led to adoption of alternative procuring methods in the public sector with a mean of 4.10, Tender invitation is determined by the complexity, value and product category with a mean of 4.31, Tendering process is meant to encourage competition in the public sector with a mean of 4.15. The aggregate mean was 4.16.

4.11 Correlation analysis

Table 4.19: Relationship between technology in procurement and implementation of tendering Process.

Degree of Extent	Technology Procurement Percentage	on Implementation of Tendering Process Percentage
Very great extent	33.6	33.4
Great extent	41.8	47.1
Moderate extent	11.5	12
Little extent	11.4	6
Not at all	1.8	1.5
Total	100	100

From table 4.18, technology in procurement has professionalised tendering process to a great extent with majority of 41.8 % of the respondents. This is majorly due to embracing of information technology by a large number of procurement personnel, thus easily utilizing e-tendering processes.

Pearson Product Moment Correlation

Statistic	Variable X	Variable Y
Mean	20.2	20.0
Std Deviation	16.85	19.46
Correlation Coefficient	0.968	

The computed Pearson Correlation coefficient of 0.968 indicates that, there is a very strong positive correlation between technology in procurement and implementation of tendering Process.

Table 4.20: Relationship between ethics in procurement and implementation of tendering Process

Degree of Extent	Ethics procurement Percentage	in Implementation of Tendering Process Percentage
Very great extent	42.9	33.4
Great extent	31.7	47.1
Moderate extent	6.3	12
Little extent	13.7	6
Not at all	5.4	1.5
Total	100	100

Pearson Product Moment Correlation

Statistic	Variable X	Variable Y
Mean	20.2	20.0
Std Deviation	19.48	16.49
Correlation Coefficient	0.845	

The calculated Pearson Correlation coefficient of 0.845 implies that, there is a strong positive correlation between ethical practices in procurement and implementation of tendering Process.

Table 4.21: Relationship between Record Management in procurement and implementation of tendering Process

Degree of Extent	Record Management	Implementation of Tendering Process
	Percentage (%)	Percentage (%)
Very great extent	46.4	33.4
Great extent	37.7	47.1
Moderate extent	9.4	12
Little extent	3.6	6
Not at all	2.9	1.5
Total	100	100

Pearson Product Moment Correlation

Statistic	Variable X	Variable Y
Mean	19.90	20.0
Std Deviation	20.41	19.47
Correlation Coefficient	0.913	

The calculated Pearson product Moment Correlation coefficient 0.913 implies that, there is a strong positive correlation between Record Management in procurement and implementation of tendering Process.

Table 4.22: Relationship between Supplier selection in procurement and implementation of tendering Process

Degree of Extent	Supplier selection	Implementation of Tendering Process
	Percentage	Percentage
Very great extent	49.3	33.4
Great extent	31.7	47.1
Moderate extent	12.1	12
Little extent	5.7	6
Not at all	1.8	1.5
Total	100	100

Pearson Product Moment Correlation

Statistic	Variable X	Variable Y
Mean	20.12	20.0
Std Deviation	19.95	19.47
Correlation Coefficient	0.843	

The calculated Pearson product Moment Correlation coefficient 0.843 implies that, there is a strong positive correlation between Supplier selection in procurement and implementation of tendering Process.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND
RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings, the conclusions from the findings and the recommendations resulting and made from these conclusions. The findings are based on the research objectives.

5.2 Summary of Findings

The study aimed to establish the factors influencing implementation of tendering processes in public institutions.

5.2.1 Technology on implementation of tendering process in public institutions.

The aggregate mean score of 3.98 infers that majority of the respondents agreed that using technology in procurement has an influence on effectiveness of tendering processes. The correlation analysis to determine the relationship between technology in procurement and implementation of tendering Process indicated that a significant correlation existed. The correlation analysis to determine the Relationship between technology in procurement and implementation of tendering Process in in public institutions indicates a significant correlation existed ($r = 0.968$). Pearson's product moment coefficient of correlation was high suggesting that a strong relationship existed between the two variables.

5.2.2 Ethics on implementation of tendering process in public institutions.

The study also sought to determine the relationship between ethics in procurement and implementation of tendering Process in public institutions. Results indicate that most of the respondents agreed that Ethics in procurement has influence on effectiveness of tendering process in public institutions with the overall mean on ethics of 3.64. The correlation analysis yielded a Pearson's product moment coefficient of correlation ($r = 0.845$) indicating that a strong and positive relationship existed between the two variables.

5.2.3 Records management on implementation of tendering process in public institutions.

In addition, the study sought to determine the Relationship between Record Management in procurement and implementation of tendering Process in public institutions. An average mean score of 4.21 indicates that majority of the respondents agreed that record management influence implementation of tendering processes in public institutions. The results of analysis yielded a Pearson's product moment coefficient of correlation ($r = 0.913$) suggesting that a strong and positive relationship existed between the two variables.

5.2.4 Supplier selection on implementation of tendering process in public institutions.

Last, on whether a relationship existed between Supplier selection in procurement and implementation of tendering Process in public institutions, the correlation was ($r = 0.843$) and the aggregate mean of 4.16 implies that the respondents agreed that Supplier selection in procurement has an impact on implementation of tendering with an overall mean of 4.16.

5.3 Discussions

On demographic information, Majority of the respondents 60% were males while females were 40% of the total respondents who participated in the study. Regarding distribution of respondents by level of education; 44.4% had undergraduate degrees, while those with postgraduate were 39.7% and diplomas only 10%. With respect to work experience A large proportion of respondents 28.5% had an experience of between 6 – 10 years; another proportion of 33.3% had worked in the ministry for between 11 – 15 years while 23.8% had worked for more than 15 years. Cumulatively 85.7% of the respondents had worked in the ministry more than 5 years.

The researcher sought to find out the extent to which technology in procurement influence implementation of tendering processes, 34% of respondents said influence of technology is very great extent, 52% said it is great extent, 5% said it is a Moderate extent, while the rest, 9% said it is to a Little extent. On ethics and implementation of

tendering processes, 34% saying it is to Very great extent, 52% saying it is to great extent, 5% saying it is Moderate extent and 9% saying it is Little extent. 6 % of respondents felt that unethical practices, that is Bribery, Coercion favoritism and Extortion, are very Great in tendering process, 18% felt are Great, 8% felt are moderate, 33 % are little while 35 % felt are very low.

The researcher further sought to know the extent to which records management in procurement influence implementation of tendering processes; 46% of respondents said influence of Records management is to a very great extent, 38% said it is great extent, 11% said it is a Moderate extent, while the rest, 5 % said it is to a Little extent. This indicates that proper Records management in procurement has an influence on effectiveness of tendering processes.

Regarding supplier selection influence on implementation of tendering processes, 34% of respondents said influence of supplier selection is to a very great extent, 52% said it is great extent, 5% said it is a Moderate extent, while the rest, 9 % said it is to a Little extent.

5.4 Conclusions

Based on the findings of the study, the following conclusions are drawn; Technology plays a vital role in maintaining customer service levels at low costs. The management in the institution value and utilizes technology to positively impact on its operating expenses though product optimization. The type of technology adopted enables public institutions to reduce inventory investments. In addition the management in the organization value and utilizes technology in order to enhance profitability while still assessing its tradeoffs and meeting their customer needs. Based on the findings it is possible to conclude that technology influences effective implementation of tendering processes.

Ethics influences effective implementation of tendering processes in public institutions as strict adherence and conformity to ethics contributes to high accountability in decision making. Ethical behavior is vital in public procurement which involves public expenditure and ought to result in value for money. Therefore it can be concluded that

ethics is one of the key factors that should be considered by management to reduce costs associated with managing risks.

Record management influences implementation of tendering processes in public institutions. Management in this organization utilizes record management in order to enhance implementation of tendering processes. Proper record management systems reduce vulnerability of any legal challenge on financial loss hence promoting efficiency. Therefore it can be concluded that records management influences effective implementation of tendering processes.

Findings also led to the conclusions that supplier selection is a core factor of effective implementation of tendering processes. Therefore if a company is entitled to effective supplier selection, it will be in a position to manage its costs, enhance institution competitiveness, increase profits and finally improve and promote customer value. The study established that the four variables: Technology, ethics, records management and supplier selection greatly influence implementation of tendering processes in public institutions. Hence, it is evident that all the independent variables have influence on implementation of tendering processes in public institutions on the basis of the correlation analysis. In addition, sometimes Public procurement act procedures were not followed.

5.5 Recommendations

Based on the objectives and findings of this Study, the following recommendations are made:

- i. To get the benefits associated with successful implementation of tendering processes, the public institutions in Kenya need to invest in technology. The organization should ensure they adopt and embrace the new practices brought about by the new technology. All purchasing procures should be computerized to ensure speed in the process.
- ii. Regardless of the fact that unethical issues are not highly exercised at the Ministry of Education; efforts should be taken into consideration to prevent unethical

practices at large because there is high influence of unethical practice in tendering process in most of public institutions in Kenya.

- iii. Supplier selection need to be conducted in a fair manner for it is vital in an organization success. Furthermore effective supplier selection reduces procurement risks while maximizing overall value in the institution.
- iv. To improve the implementation of tendering process, there is need to conduct supplier evaluations in a fair and free manner. The latent suppliers should be approved by quantitative valuation on characteristics such as quality, cost, capability and risk factor. The aim of suppliers' assessments should be to ensure value for money, boost supplier performance and reduce the possibility of supplier nonperformance, such as late delivery, non-delivery, or delivery of non-conforming goods.

5.6 Suggestions for further research

The researcher suggests that further research be conducted on:

- i. The study recommends a further research be conducted in parastatals in Kenya for comparison of results and generalization of results.
- ii. A comparable study may also be carried out in counties to establish whether the findings are similar as those generalized in this study.
- iii. Explore on other factors influencing implementation of tendering processes in public institutions

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APPENDICES

APPENDIX I: INTERVIEW SCHEDULE FOR DIRECTORATES AT THE MINISTRY OF EDUCATION .

This interview schedule is aimed at collecting data required for a study titled '*factors influencing implementation of tendering processes in public institutions*'. Your participation in completing the interview guide is essential to this study and respondents are kindly requested to complete the interview guide and give any additional information they might feel is necessary for the study. The information you provide will be used for academic purposes and will be treated with utmost confidentiality.

SECTION A: DEMOGRAPHIC INFORMATION

- 1) Please indicate your Gender
 - a) Male []
 - b) Female []

- 2) Highest Level of education
 - a) Secondary Level []
 - b) Diploma Level []
 - c) Degree Level []
 - d) PHD Level []

- 3) Indicate your age bracket
 - a) Below 25 years []
 - b) 25-35 years []
 - c) 36-45 years []
 - d) Above 45 years []

- 4) How long have you worked in the organization?

- a) 5 years & Less
 - b) 6-10 Years
 - c) 11-15 years
 - d) Above 15 years
- 5) What is your position in this organization?
- a) Top Level
 - b) Middle Level
- 6) What is your understanding of implementation of tendering processes in public institutions?
-
-

SECTION B: STUDY VARIABLES

i) Technology on procurement

- 1) To what extent does technology in procurement influence implementation of tendering processes in public institutions?
- a) Very great extent
 - b) Great extent
 - c) Moderate extent
 - d) Little extent
 - e) Not at all
- 2) Information technology has generally improved performance of the procurement function.
- yes
 - No
- 3) The following are statement relating to technology on implementation of tendering processes in public institutions. Please use the five-point scale where:

1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent; to circle the appropriate number to indicate your agreements.

	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent
Technology plays a vital role in maintaining customer service levels at low costs.					
The management in this institution value and utilizes technology to positively impact on its operating expenses through product optimization.					
The type of technology adopted enables public institutions to reduce inventory investments.					
The management in this organization value and utilizes technology in order to enhance profitability while still assessing its tradeoffs and meeting their customer needs.					
Others(-----)					

ii) Ethics

1) To what extent do ethics influence implementation of tendering processes in public institutions?

- a) Very great extent
- b) Great extent
- c) Moderate extent
- d) Little extent
- e) Not at all

2) The following are statements relating to ethics on implementation of tendering processes in public institutions. Please use the five-point scale where: 1= Not at all;

2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent; to circle the appropriate number to indicate the extent of agreement to each.

	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent
Strict adherence and conformity to ethics contributes to high accountability in decision making.					
Ethical behavior is vital in public procurement which involves public expenditure and ought to result in value for money.					
The management has put in place ethical standards that supports openness and accountability in procurement processes hence supplier confidence.					
The management in this institution value and utilize code of ethics to reduce costs associated with managing risks.					
Ethics overcomes tendency of compartmentalizing ethical issues in procurement processes					
Others (-----)					

- 3) Indicate to what extent the following challenges on ethics affect implementation of tendering processes in your organization

Challenges	Very Great Extent	Great Extent	Moderate Extent	Little Extent	Not at all
Bribery					
Coercion					
Favoritism					
Extortion					
Any other (Please specify)					

iii) Records management

- 1) To what extent does record management influence implementation of tendering processes in public institutions?

- a) Very great extent []
- b) Great extent []
- c) Moderate extent []
- d) Little extent []
- e) Not at all []

- 2) The following are statements relating to record management on implementation of tendering processes in public institutions. Please use the five-point scale where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent; to circle the appropriate number to indicate the extent of agreement to each.

	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent
The management in this organization utilizes record management in order to enhance implementation of tendering processes.					
Most of the staff understands the value of record management for they receive training of the current aspects that enhance profitability through better understanding of the market.					
Record management promotes efficiency and accountability within procurement entities					
Record management solution assist in tracking, retrieval and storage of important documents					
Employees of the organization are competent enough to design record management systems that reduce vulnerability of any legal challenge on financial loss hence promoting efficiency					

iv) Supplier selection

1) To what extent does supplier selection influence implementation of tendering processes in public institutions?

- a) Very great extent
- b) Great extent
- c) Moderate extent
- d) Little extent
- e) Not at all

2) The following are statement relating to Supplier selection on implementation of tendering processes in public institutions. Please use the five-point scale where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 =

To a very great extent; to circle the appropriate number to indicate the extent of agreement to each.

	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent
The process of supplier selection is vital in an institutions operational success.					
The management has implemented supply networks that enhance the institutions competitiveness.					
Supply networks contribute to increased profits and promote customer value.					
Supply selection and evaluation reduces procurement risk while maximizing overall value in the institution.					

v) Procurement Act

To what extent does Public procurement act facilitate implementation of tendering processes in public institutions?

- a) Very great extent []
- b) Great extent []
- c) Moderate extent []
- d) Little extent []
- e) Not at all []

vi) Tendering process

- 1) The following are statement relating to implementation of tendering processes in public institutions. Please use the five-point scale where: 1= Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a great extent; 5 = To a very great extent; to circle the appropriate number to indicate the extent of agreement to each.

	Not at all	To a little extent	To a moderate extent	To a great extent	To a very great extent
Tendering in public sector not only involves identification of suitable company to execute a project but also invitation for bidding by interested contractors.					
Effective tendering is based on the principles of competitiveness, fairness, accessibility and transparency.					
Competitive tendering has led to adoption of alternative procuring methods in the public sector.					
Tender invitation is determined by the complexity, value and product category.					
Tendering process is meant to encourage competition in the public sector.					

APPENDIX II: WORK PLAN

2018	Establish research problem	Draft research proposal	Data collection	Report compilation	Report submission
March					
April					
August					
September					
October					

APPENDIX III: BUDGET

Item	Needed	Description	Cost/ Unit	Total Cost KShs.
Proposal	8 copies	Printing photocopy 65 pages	10.00	1,560.00
		Spiral Binding	60.00	480.00
			Sub total	2,040.00
Questionnaires	90 copies	Printing 11 pages	30.00	29,700.00
				29700.00
Stationery	Note book	6	120.00	720.00
	Pen	3	30.00	90.00
	Pencil	3	30.00	90.00
	Staedtler rubber& sharpener	2@	200.00	200.00
				Sub total
Data collection preliminary costs		Research letters, prior visits and travel expenses		8,120.00
Data collection3 costs		Research assistants	2000.00	6,000.00
Final Report	8 copies	printing photocopy 105 pages	350.00	2,040.00
	8	Hard Cover Binding	500.00	4, 000.00
			Sub Total	<u>6, 040.00</u>
Total cost of the project				<u>53,000.00</u>