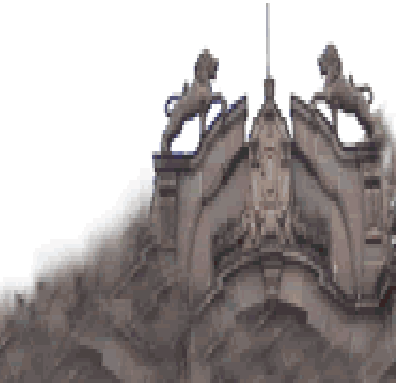
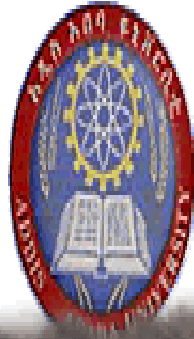


Addis Ababa
University

(Since 1950)



Addis Ababa University

School of Commerce

Department of Logistics and Supply Chain Management

Graduate Studies

**Factors Affecting Public Procurement Performance in Ethiopia:
The Case of Public Procurement and Property Disposal Services**

By

Abebe Aberu

Advisor

Mathewos Ensermu (PhD)

**A Thesis Submitted to the School of Commerce, Addis Ababa University in Partial
Fulfillment of the Requirements for the Master of Arts in Degree Logistics and Supply
Chain Management**

May, 2017

Addis Ababa, Ethiopia

DECLARATION

I hereby declare that the thesis entitled “Factors affecting public procurement performance in Ethiopia: the case Public Procurement and Property Disposal Services.” is original and has not been submitted for other degrees or the like in this University College or any other institutes. It does not contain any material, partly or wholly, published or written by others, except those references quoted in the text.

Student Name

Abebe Aberu

Student Signature and date

CERTIFICATION

This to certify that Abebe Aberu has carried out his thesis work on the topic entitled “Factors affecting public procurement performance in Ethiopia: the case Public Procurement and Property Disposal Services.” under my guidance and supervision. Accordingly, I hereby assure that his work is appropriate and standard enough to be submitted for the award of Master of Arts degree in Logistics and Supply Chain Management.

Name of Advisor

Dr. Mathewos Ensermu

Signature and Date

Addis Ababa University
College of Commerce
School of Graduate Studies

Factors Affecting Public Procurement Performance in Ethiopia: The Case of Public Procurement and Property Disposal Services.

By

Abebe Aberu

This is to certify that the thesis prepared by Abebe Aberu, titled: “Factors affecting public procurement performance in Ethiopia: the case Public Procurement and Property Disposal Services” and submitted in partial fulfillment of the requirements for The **Master of Arts Degree in Logistics and Supply Chain Management** complies with the regulations of the Addis Ababa University College of Commerce and meets the accepted standards with respect to originality and quality.

Name of Advisor: _____

Signature _____
Date _____

Name of Internal Examiner: _____

Signature _____
Date _____

Name of External Examiner: _____

Signatures _____
Date _____

Name of Department head: _____

Signature _____
Date _____

ACKNOWLEDGEMENT

First of all, I would like to thank the Almighty God, Who gave me the commitment and tolerance to pass various obstacles and come up to the accomplishment of this thesis.

I am deeply indebted to my advisor, Mathewos Ensermu (PhD), from Addis Ababa University, College of Commerce, department of Logistics and Supply Chain Management for his understanding, answering my frequent questions without any hesitation, for his countless suggestions, assistance, kindness and invaluable advice.

Next, I wish to express my deepest gratitude to my previous Proposal Examiner, Mengistu Bogale (PhD), for his critical comments and constructive criticism in doing of the thesis proposal. A special recognition goes to all my friends, for their support with SPSS, their valuable advice, and encouraging remarks to the successful completion of this thesis. Most important, this thesis would not have been possible without the support of the exceptional people who are PPPDS employees, budgetary institutions employees and suppliers by giving me the response of the questionnaire.

To all of you, kindly accept my appreciation for your great support.

TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
LIST OF TABLES	i
LIST OF FIGURES	ii
ACRONYMS AND ABBREVIATIONS	iii
Abstract	iv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.3. Statement of the Problem	2
1.4 Research Questions	4
1.5 Research Objectives	5
1.5.1. General Objectives	5
1.5.2. Specific objectives	5
1.6 Limitations of the Study	5
1.7. Significance /Value of the Research	6
1.8 Scope of the Study/Delimitation of the Study	6
1.9 Operational Definitions	6
1.10. Organization of the Study	7
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1. Definition of Public Procurement	8
2.2. Objectives (Principles) to be meet in Public Procurement	9
2.2.1. Acquisition Efficiency (value for money)	9
2.2.2. Integrity (avoiding corruption and conflict of interest)	9
2.2.3. Accountability	10
2.2.4 Equal opportunities and treatment of supplies	10
2.2.5. Fair Treatment of Supplies	10
2.3 Procurement Procedures	10
2.3.1 Need Identification	10
2.3.2 Planning and Specification of Goods or Services Required	10
2.3.3 Sourcing, Awarding, and Supplier Management	11

2.3.4. Steps in the Sourcing Process	11
2.3.5 Placing Orders and Contracting	12
2.3.6 Progressing/Expediting	12
2.3.7 Delivery and Return	12
2.3.8 Payment	13
2.3.9 Records of procurement documents	13
2.5 Procurement performance	13
2.6 Challenges in public procurement	14
2.7 Factors affecting Procurement Performance in Public Sector	17
2.7.1 Procurement Planning and Procurement performance	17
2.7.2 Procurement Procedures and Procurement performance	17
2.7.3 Information Communications Technology and Procurement performance	18
2.7.4 Staff Qualification and Procurement performance	18
2.8. The five key purchasing variables	20
2.8.1 The Right Quality View	20
2.8.2. The Right Quantity	20
2.8.3. The Right Time	21
2.8.4 The Right Supplier	21
2.8.5 The Right Price	21
2.9 Empirical Review	21
2.10 Conceptual Framework	22
CHAPTER THREE	24
RESEARCH METHODOLOGY	24
3.1. The Research Approach	24
3.2. Research Design	24
3.3. Sample Design	25
3.3.1. Target population	25
3.3.2. Sampling Frame	26
3.3.3. Sampling Unit	26
3.3.4. Sampling Technique	26
3.3.5. Sample Size	27
3.4. Sources of Data	29

3.4.1. Primary data sources	29
3.4.2. Secondary data sources	29
3.5. Data analysis and presentation.....	30
3.6. Data Collection Method	30
3.7. Ethical Consideration	31
3.8. Validity and Reliability.....	31
CHAPTER FOUR	33
DATA ANALYSIS, PRESENTATION AND INTERPRETATION	33
4.1 Introduction	33
4.2. Demographics Data.....	33
4.2.1. Questioners Response Rate	33
4.2.2 Educational Level of Respondents	34
4.2.3 Relevant work experience of Respondents	34
4.2.4 Position of Respondents	35
4.3 Procurement planning and its effect on procurement performance	36
4.4 Staff Competency and its effect on procurement performance	40
4.5 Procurement procedures and its effect on procurement performance.....	44
4.6 ICT utilization and its effect on procurement performance	47
4.7. Problems of Procurement Performance in PPPDS.....	51
4.8 Procurement Performance Evaluation	52
4.9 Tests and Statistical Analysis.....	53
4.9.1 Normality Test.....	53
4.9.2 Correlation Relation	55
4.9.3 Multicollinearity Assumption.....	56
4.9.4 Auto-correlation Assumption /Durbin–Watson test/	57
4.10 Interpretation of Model Summary.....	57
4.11. Regression Analysis.....	58
4.12 Model Generalization	58
4.12.1 Multiple Regression Analysis	59
4.12.2 Analysis of Variance /ANOVA/ Test	59
4.12.3 Regression Coefficients or Model	60
4.13 Hypothesis Test.....	62

CHAPTER FIVE.....	66
SUMMARY, CONCLUSION AND RECOMMENDATION	66
5.1. Introduction	66
5.2. Summary of Major Findings	66
5.2.1 Procurement Planning	66
5.2.2 Staff Competency.....	67
5.2.3 Procurement Procedures	67
5.2.4 Utilization of Information Communication Technology	68
5.3 Conclusion.....	68
5.4 Recommendations	69
5.5 Suggestion for Further Study	71
REFERENCES	I
ANNEX: A	VIII

LIST OF TABLES

<i>Table 3.1 Sample size in each selected organizations and suppliers:</i>	29
<i>Table 3. 2 Cronbach’s Alpha Summary</i>	32
<i>Table 4. 1Response Rate</i>	34
<i>Table 4. 2Educational Status of Respondents</i>	34
<i>Table 4. 3Relevant work experience</i>	34
<i>Table 4. 4 Designation/position of Respondents</i>	35
<i>Table 4. 5 Response summary on procurement planning</i>	37
<i>Table 4. 6 Response summary on Staff Competency</i>	41
<i>Table 4. 7Response summary on procurement procedures</i>	44
<i>Table 4. 8Response summary on ICT utilization</i>	48
<i>Table 4. 9 Major factors of procurement performance in PPPDS</i>	51
<i>Table 4. 10PPPDS’s Procurement performance Descriptive Statistics</i>	52
<i>Table 4. 11Tests of normalityProcurement performance</i>	54
<i>Table 4. 12Pearson Correlation Information</i>	55
<i>Table 4. 13Collinearity statistics value</i>	57
<i>Table 4. 14Model Summary Table</i>	58
<i>Table 4. 15 ANOVA table</i>	60
<i>Table 4. 16 Regression Standardized Coefficients</i>	61
<i>Table 4. 17Hypothesis test result</i>	63

LIST OF FIGURES

<i>Figure 2. 1 Conceptual Framework</i>	23
<i>Figure 4. 1 Normal distribution of the data</i>	54

ACRONYMS AND ABBREVIATIONS

ARP	Automatic Replenishment Programs
CPFR	Collaborative Planning, Forecasting and Replenishment
GDP	Gross Domestic Product
EOQ	Economic Order Quantity
FPPAA	Federal Public Procurement and Property Administration Agency
ICT	Information Communication Technology
JIT	Just-in-time
MOFED	Ministry of Finance and Economic Development
OECD	Organization for Economic Co-operation and Development
PPPDS	Public Procurement and Property Disposal Service
ROI	Returns on investment
SC	Supply chain
VMI	Vendor Managed Inventory

Abstract

This research aims to examine factors affecting public procurement performance in Ethiopia: the case of Public Procurement and Property Disposal Services. Based on literature reviews, the researcher identified four factors that affect the procurement performance. These includes: procurement planning, unethical practices, competency of staff, procurement procedure and Information Communication Technology on procurement. The hypothesis of the study was the procurement factors (independent variables) affect the procurement performance (dependent variable) of PPPDS. The research design is made based on descriptive and explanatory research approaches. The researcher distributed 116 questionnaires and 97 were filled and returned. Both primary and secondary data were used throughout this research. For primary data, both structured and semi structured type questionnaires were prepared. The results of this study indicate that the independent variables (Procurement Planning, Competency of Staff, Procurement Procedure and Information Communication Technology) positively affect the dependent variable (procurement performance) to a significant extent. These factors explain 85.9% of procurement performance, while the rest 14.1% is explained by other factors which are not subject of this study.

Key words: Procurement Planning, Competency of Staff, Procurement Procedures, Utilization of Information Communication Technology.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Public procurement is the acquisition of goods and services at the best possible total cost of ownership, in the right quantity and quality, at the right time, in the right place and from the right source for the direct benefit or use of corporations, or individuals, generally by contract Breitman & Lucas, (1987).

Public procurement is a key tool to promote objectives of an economic, environmental and social nature gaining much attention globally over the past decades. In developing countries, it is one of the main instruments to the achievement of development goals such as reducing poverty and providing health, infrastructure, education and other services Mlinga, (2009).

Public procurement accounts for 15-30% of the gross domestic products (GDP) for many countries in the world (United Nations Office on Drugs and Crimes (UNDOC), 2013). While public procurement represents an estimated 15% of GDP in Organization for Economic Cooperation and Development (OECD), countries and up to 25% of GDP in developing countries OECD, (2007).The share is believed to be much higher in developing and least developed countries, where development of basic infrastructure is still the prime focus of governments and consumes huge budget Basheka&Bisangabasaija, (2010). In developing countries, public procurement is increasingly recognized as essential in service delivery and it accounts for a high proportion of total expenditure. For example, public procurement accounts for 60% in Kenya Akech, (2005), 58% in Angola, 40% in Malawi and 70% of Uganda's public spending Basheka and Bisangabasaija, (2010).

In Ethiopia, more than 60% of the total public expenditure has been spent through public procurement in a year. It is a huge amount of money that public bodies spent via public procurement. The expenditure on public procurement is increasing from year to year. However, the resource spent on public procurement is not used properly and in an economical manner and in the current Ethiopian public procurement process, the compliant on public procurement process shows increment from year to year. Efficiently and effectively handling this size of

procurement outlay has been a policy and management concern as well as a challenge for governments PPA Annual Report, (2014).

Public Procurement procedures are decision making processes. The procuring authority has to compare the proposals against pre-set criteria specified on the bid and needs to choose one of them or reject all of them. The decision logic of procurement can be characterized as "One Winner" selection process from known alternatives, where the alternatives are compared at the same time using a previously determined, and unified criteria system. Procurement procedures are also group processes, and negotiations among the stakeholders is an essential part of completing the task Thai, (2001).

In a developed or developing country, employees who work on public procurement have and will face always many challenges. Some of them are lack of employee's competency in the area of procurement profession, using IT in procurement activities is very minimal, and preparing procurement plan is very poor. Each country has its own economic, social, cultural and political environment, and each country's public procurement experts face different types of challenges or the same types of challenges but at different levels from their counterparts in other countries Callender and Mathews, (2000).All the challenges and factors need attention since they could influence the performance of the procurement function. Due to these reasons the researcher will examine the factors that affect public procurement performance in PPPDS.

1.3. Statement of the Problem

According to Wanyonyi, (2015), procurement is the nerve center of performance in every institution, whether public or private, and thus, needs a serious attention and tight system to be adopted and followed.

In many developing countries, huge amounts of domestic and foreign resources spend on public procurement. However, public procurement systems are very weak and effective governance of the public sector is at the center of strong challenges Thai, (2009). Moreover, in developing country, many procurement activities still suffer from neglect, lack of proper direction, poor coordination, slow with a number of bureaucracy, lack of open competition and transparency, lack of accessibility, differing levels of corruption and not having a cadre of trained and qualified

procurement officer, who are capable to conduct and manage the procurement process in a professional, timely and cost effective manner Wanyonyi, (2015).

Mamiro, (2010), described on findings that one of the major setbacks in public procurement is poor procurement planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of skills of procurement staff.

In Ethiopia, More project works are being affected due to the lack of effective procurement process, which is the main cause of insufficient service delivery in all public sectors Anteneh, (2015). Furthermore, according to Gizachew, (2012), the Ethiopian public sector working program mostly extended to the coming years, due to the lack of effective procurement.

Getahun, (2015) conducted a study on Assessment of Procurement Planning and Implementation effectiveness in Ethiopia, the study pointed out the procurement plan format which was not coherent. The study further points out that the plan and reporting format, which was sent from PPA, doesn't show the detail lead-time. It only shows the time limit set up for the process. The performance reporting format doesn't adhere with the plan format. It only shows the type and the amount of the procurement which does not allow to keep tracking the performance level. The study also indicated that urgent/unplanned procurement requisitions and lack of technology usage in the procurement process is a challenge in procurement unit.

Another study by Kumala and Abayneh, (2014), conducted the study on significance of Framework Agreement and Factors Influencing the adaption of E-Procurement in PPPDS: they pointed out in their findings that there is a lack of efficiency in time use which results in additional cost, waste of time and problems on definition of quality due to specification gap on few items. These studies have also indicated that such poor practices could lead to the delay of procurement which has high effect on the needs and use of goods for intended purpose.

The researcher identified the major factors affecting procurement performance of PPPDS from the secondary data from PPPDS's annual report of 2007 and 2008 E.C. those are: End users not raised their need on time, lack of proper knowledge, skills and capacity staffs, inadequate linking of demand to the budget, lack of accountability, fraud and corruption practice, Poor

implementation of Information communication technology, Shortage of foreign currency, lack of clear process and procedure and client's financial difficulties.

Accordingly, in this particular area a number of problems were observed and complains were heard from end users regarding qualities of goods and services purchases, unfair purchasing price and timely purchase of goods and services (Contract Management Directorate recorded data of 2007 and 2008 E.C.).

Even though there were a lot of international empirical studies on procurement performance, none of these studies focused on the influence of procurement planning, employee competency, utilization of information communication technology and procurement procedures on procurement performance. Most of these studies have been conducted in other countries of the world with varying contexts of demographics, economic, political and environmental factors and institutional settings. Hence their findings couldn't be generalized to the Ethiopian federal public procurement performance.

Moreover, as to the researcher knowledge, no study has been undertaken regarding the factors that the PPPDS faces. To this effect, It is essential to find the fact through scientific research and to suggest appropriate remedies for the identified problems above and fill this research gap by examining factors such procurement plans, unethical practices and staff qualification, procurement procedures, utilization of ICT more specifically at Public Procurement and Property Disposal Service (PPPDS).

1.4 Research Questions

Based on the identified problems above literature reviewed, the researcher has developed the following questions that need to be researched in the context of Ethiopia with special focus on Public Procurement and Property Disposal Service to examine the factors that affect public procurement performance in Public Procurement and Property Disposal Services

1. How procurement planning of other public bodies affect the performance of public procurement in PPPDS?
2. How staff competency influence public procurement performance in PPPDS?
3. How does procurement procedure influence public procurement performance in PPPDS?

4. What is the effect of adoption of information technology on the public procurement performance in PPPDS?

1.5. Research Objectives

Based on the questions above, the research has the following general and specific objectives:

1.5.1. General Objectives

The general objective of this research is to examine the factors that affect public procurement performance in Public Procurement and Property Disposal Services

1.5.2. Specific objectives

The specific objectives of the research are:

1. To establish the effect of procurement planning of other public bodies on the performance of public procurement in PPPDS.
2. To establish the extent in which competency of staff influence the performance of procurement in PPPDS.
3. To analyze the influence of procurement procedure on procurement performance in PPPDS.
4. To investigate how the adoption of Information Communication Technology can effect on procurement performance in PPPDS.

1.6. Limitations of the Study

Some respondents were reluctant in giving information for fear of victimization. Also some respondents said they did not want to give their time to answer the questionnaire because they said they were busy with their office work. Some respondents gave some inconsistency in a response as they would not finish all the questions in the required time. In such cases, some logical deductions were made on that particular questions were rejected and some respondents were not punctual in returning the questionnaires. The researcher has managed all these limitations by explaining the goal and the expected outcome of the survey to the respondents.

1.7. Significance /Value of the Research

The findings of this research may help PPPDS to identify the factors that affect procurement performance and to fix the problem with remedial action. It is also expected that from the findings of this study, PPPDS may put in place appropriate measures to improve procurement performance levels.

Similarly, it provides the researcher an opportunity to compare the academic theory with the actual procurement practice at the ground and gain deep knowledge in the concepts of Public procurement performance.

This study may serves as a reference for other researchers who are interested in conducting studies on related issue.

In addition, the study could be of importance to procurement Professionals in various public sectors since it would add a body of knowledge to factors of procurement performance. The issues which had been addressed in this research may expect to improve public procurement practices as part of their strategic plan for the achievement of best value for public money. The decisions given based on the research may also be important to improve overall public procurement performance.

1.8. Scope of the Study/Delimitation of the Study

The scope of the study is delaminated to the procurement activities of Federal Public Procurement and Property Disposal Service (PPPDS), specifically on the factors that affect procurement performance such as procurement procedures, plans, staff competency and utilization of ICT. The subject of the study is only the federal public procurement practices. The study cover other user public bodies that are benefiting from the purchasing of frame work agreement, goods, works, consultancy or other services from PPPDS. The study not covered the regional public bodies' procurement activities. In addition the study not addressed procurement activities of state owned enterprises (SOE). The study also measured the performance of procurement activities of PPPDS in terms of the five rights of purchasing.

1.9. Operational Definitions

Public procurement is the process of the acquisition, usually by means of contractual arrangements after the public competition, of goods, services, works and other supplies by the public entity.

Public procurement performance is measured whether it assures value for money due to proper process and procedure or increased customer satisfaction. It entails high returns on investment (ROI), reduced transactional costs, faster delivery of services and supplies, delivery of high quality purchases, and streamlined supply chains Odhiambo&Kamau,(2003).

Procurement procedures are operating instructions detailing functional duties or tasks.

ICT utilization is usage of information communication technology in the processes of procurement activities.

Procurement planning is the future needs to procure goods and services for the organization to meet its strategic goals. It involves careful attention to the choice of procurement method, the types of contract to be utilized, and the schedule for project implementation.

Staff Competency It involves ability or know how about how to perform the functions of the job that includes industry knowledge, background and expertise; interpersonal or skills required to get along effectively with others include such things as the ability to listen non-defensively, and teamwork and customer service skill.

1.10. Organization of the Study

This study is organized in five consequential chapters. The first chapter deals with the introduction part of the paper encompassing background of the study and the company under evaluation, statement of the problem, objectives of the study and other relevant issues. The second chapter focuses on relevant literature review. In this chapter a review the relevant literatures in relation to the topic under discussion was made. The third chapter deals with research Methodology; that is, the research design, approaches used throughout the data collection and analysis processes are discussed. The fourth chapter presents the overall findings of the study which prevails about the factors affecting the performance of procurement activities in Ethiopia with emphasis on Federal Public Procurement and Property Disposal Service. Finally, chapter five incorporates summary of major findings, conclusion and recommendation part of the study. Factors Affecting Procurement Performance: the case of Federal Public Procurement and Property Disposal Service (PPPDS)

CHAPTER TWO LITERATURE REVIEW

In this chapter, the researcher has reviewed relevant literatures which are in related with the title in the study area. The chapter thus includes concepts and ideas, practices of Procurement and organizational and Procurement performance. Conceptual framework of the research and empirical evidences are also included.

2.1. Definition of Public Procurement

Public procurement: It is a process of identifying and obtaining goods and services. It includes sourcing, purchasing and covers all activities from identifying potential suppliers through to delivery from supplier to the users or beneficiary. It is favorable that the goods/services are appropriate and that they are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time, and location Mangan, Lawani, and Butcher, (2008).

Public procurement is a process, which the governmental entity hiring or purchasing works, goods and services from other parties Michael and Juanita, (2006). It includes starting from very small items (for example, stationary, puncher, office furniture, detergent, toner and others) to very complex items (for example aircraft, railway, boiler, transformer and others) and it helps to attain the need of public entity to carry out its duties. Tony, (2011) states that public procurement is acquisition of works, goods and services by public entities, whether under formal contractor or not and it ranges from the purchase of routine supplies or services to formal tendering and placing contracts for large infrastructural project.

According to Dobler and Burt (1998) procurement can be defined as "...the acquisition, whether under formal contract or other wise of goods, services and works from third parties by contracting authority. "

According to the Ethiopian Public Procurement Proclamation (No 649/2009), procurement means "obtaining goods, works, consultancy or other services through purchasing, hiring or obtaining by any other contractual means." From the above definitions, the overall tasks of procurement is to obtain goods, works, consultancy services and other services at the right quality, in the right quantity, from the right sources, at the right time, place and price to achieve an organizational objectives.

2.2. Objectives (Principles) to be meet in Public Procurement

There are a number of principles of public procurement that can be identified that are shared by some most, principles most or many systems of public procurement. These principles are implemented through various means of legal and regulatory rules on conducting public procurement procedures are one of these means. According to Arrow, S. (2010) there are eight Objectives (Principles) to be meet in Public Procurement.

2.2.1. Acquisition Efficiency (value for money)

A major objective of most-perhaps all-procurement system is to successfully require the goods, works or services concerned on the best possible terms. This is often referred to as value for money or efficiency or economic efficiency. Obtaining value for money in requiring the goods, works or services needed to carry out the governments' activities. This objective can be seen to have three aspects.

- Ensuring the goods, works or services acquired are suitable.
- Concluding an arrangement to score what is needed on the best possible terms.
- Ensuring contractor ability to provide on the agreed terms.

It has often been said that this is the primary goal of most procurement systems.

2.2.2. Integrity (avoiding corruption and conflict of interest)

- Integrity refers to the idea that procurement should be carried out without any influence of corruption.
- This occur in various forms of collusion between government and bidders; among them; awarding contracts:
 - ✓ On the basis of bribes
 - ✓ To firms in which one has a payroll interest and relationship,
 - ✓ To political supporters

The government will not obtain the benefit of the most competitive offer that would be put forward a fair competition. Here the government should integrate this corruption in doing so with fair competition and transparent system of procurement Arrow, S. (2010).

2.2.3. Accountability

The third objective is to ensure accountability in the sense that the system provides means for interested parties to establish whether the government is meeting its objectives. It's or means to achieve many of the objectives of a procurement system, including value for money and integrity. Its OC separated objective of the procurement system governments may accept costs to accountability mechanisms, even if these accountability mechanisms do not produce Arrow, S. (2010).

2.2.4 Equal opportunities and treatment of supplies

It's important to realize that the concept of equal treatment in the public procurement may take on two different roles. The first is equal treatment which may serve simply as a means to achieve other objectives of the public procurement system, such as value for money in obtaining goods, works and services, preventing corruption and opening up markets to competition. Secondly, however, in addition to serving a means to support other procurement objectives, equal treatment may also serve as an objective of the procurement process in its own right Arrow , S. 2010).

2.2.5. Fair Treatment of Supplies

It allows supplier to put its case before being debarred from procurement can improve the quality of debarment decisions and perhaps thus avoid unjustified debarment of a firm that could provide the best value for money; whilst requiring that supplies are to be given reasons for decisions against them can help improve both the quality of decisions and supplier monitoring of the procurement process Arrow , S. (2010).

2.3 Procurement Procedures

Shaw (2010) points out that the procurement process can be wrapped into three steps. These are need identification, planning and specification of goods or services required, and sourcing, awarding, and supplier management to facilitate timely delivery.

2.3.1 Need Identification

Procurement is done to desire to accomplish a specific task. Given that resources are always scarce, the task to be accomplished should be important to an organization Nakamura, (2004)

2.3.2 Planning and Specification of Goods or Services Required

Once the needs have been identified, the procurement department should develop or communicate a plan on how to deliver the service or goods required. The plan must be developed

in collaboration with the other functions within the organization, so that it is integrated into the organization's strategy and therefore provided for adequately Shaw, (2010).

To be able to purchase the right goods or services, the specifications of what the organization needs must be clear. These specifications are used to communicate to the supplier what is needed and what should be supplied. It is therefore important to have clear, precise and accurate specifications. Most organizations have standard specifications for the most regularly procured items and services such as medical and construction Shaw, (2010).

Thai, Araujo, Carter and Callender (2005) provide that a specification is a detailed description of the design, the service, or materials. It describes in detail the requirements to which the supplies or services must conform. The basic requirement of a good specification is to clearly identify the service or product to stakeholders. The specifications must be clear to all parties. That is the user, procurement and the supplier. Factors to consider in specifying a product include physical attributes, technical specification, and intended use Thai et al, (2005).

2.3.3 Sourcing, Awarding, and Supplier Management

Hinson and McCue (2004) say that sourcing is the process of identifying sources of supply that can meet the organization's immediate and future requirements for goods and services. The sourcing process adopted will depend on the situation and on the time available to carry out sourcing.

For instance, in a sudden on-set emergency the need to respond quickly to the emergency will mean there will be limited time to gather sourcing information and approve suppliers; therefore, an organization may make use of existing suppliers.

2.3.4. Steps in the Sourcing Process

➤ Market Enquiry

The process of inviting and evaluating tenders or quotations will vary depending upon an organization's own internal procedures.

➤ Evaluation and Awarding

The evaluation of tenders and awarding of contracts to suppliers is an important phase of the procurement process Maurer, (2004). It is the process that determines the actual quality, reliability, delivery, etc. of the goods and services.

The procurement department coordinates the following

- Analyzing and evaluating the bids against set criteria, specification requirements and presenting the analysis to an procurement appointed committee
- Verification of supplier capability and quality control/ assurance processes
- Reviewing product inspection results where necessary
- Verification of technical evaluation reports where applicable
- Negotiates with vendors where it is recommended by the committee
- Placing orders and expediting the delivery.

2.3.5 Placing Orders and Contracting

After evaluating and awarding of tender, the next step in the process involves placing orders for the goods or services with the supplier, or establishing contracts which need to be sent to suppliers. In emergency situations the approval levels and limits are adjusted, based on an approved process, to speed up the process of acquiring goods and services. Under normal circumstances, the approval processes may be more elaborate. The orders establish contractual relationships between the organization and the supplier Shaw, (2010).

2.3.6 Progressing/Expediting

Once the order is placed and the supplier has confirmed receipt and agreed to the contract terms and conditions, the role and the amount of work that staff in procurement have to undertake will be affected by the performance of the suppliers Bovis, (2007). It is necessary therefore, for the procurement staff to monitor the progress of orders and the performance of the suppliers. The continuous monitoring enables the organization to pick out break-down points in the system and quickly identify solutions Shaw, (2010).

2.3.7 Delivery and Return

Lewis and Roehrich (2009) argue that procurement only facilitates delivery through expediting for timely delivery and trouble-shooting returns. The physical receipt and inspection of goods takes place at the delivery point. In addition, whoever is responsible for accepting delivery and inspecting the goods should understand the procedure to follow in the event that there are any problems or discrepancies. For certain goods or commodities an independent inspection company may be used to check the quality of the goods Shaw, (2010).

2.3.8 Payment

When goods or services are received and accepted into stock, procurement then facilitates payment of the supplier by providing necessary documentation to Finance Department.

Orders are normally generated in procurement, as the goods are delivered in the warehouses and transported to final distribution points; additional documents are generated in the process to support transactions. All these documents are finally consolidated to support vendor payments Shaw, (2010).

2.3.9 Records of procurement documents

According to the proclamation (2009), public bodies shall have to maintain records and documents regarding their public procurement, the record shall include that following: -

- A brief description of the procurement;
- The invitation to bid;
- The name and addresses of suppliers that submitted bids;
- The evaluation criteria stipulated and a summary of the evaluation and comparison of bids;
- Information on the proceeding of any decision rendered where a complaint against a procurement process is lodged;
- The ground for using a procurement procedure other than open bidding;

2.5 Procurement performance

Van Weele (2006) maintained that there is a link between procurement process, efficiency, effectiveness and performance. Procurement performance starts from purchasing efficiency and effectiveness in the procurement function in order to change from being reactive to being proactive to attain set performance levels in an entity. Performance provides the basis for an organization to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements. Procurement performance is not an end in itself but a means to control and monitor the procurement function. For any organization to change its focus and become more competitive, performance is a key driver to improving quality of services.

Batenburg and Versendaal (2006) noted that use of inappropriate means can be a barrier to change and may lead to deterioration of procurement operations. Organizations which do not have performance means in their processes, procedures, and plans experience lower performance and higher customer dissatisfaction and employee turnover. Measuring procurement performance yields benefits to organizations such as cost reduction, enhanced profitability, assured supplies, quality improvements and competitive advantage. Electronic processes have replaced physical and paper-based processes. E-procurement moves tendering, negotiation and purchasing processes to websites. Improvement to a PE's procurement performance can be realized through reduced costs and wider choice available.

2.6 Challenges in public procurement

Thai, (2009) noted that Challenges in public procurement can be divide internal and external challenges.

A, internal challenges

Public procurement practitioners have always walked on a tight rope. Their ability to accomplish procurement objectives and policies is influenced very much by internal forces including:

- Interactions between various elements of the public procurement systems, various officials and organizations in the three branches of government, and various actors and sub-agencies within a department or executive agency and actors and organizations external to sub-agencies;
- Types of goods, services and capital assets required for an agency's missions;
- Professionalism or quality of procurement workforce;
- Staffing levels (e.g., ratio of procurement practitioners to contract actions) and budget resources;
- Procurement organizational structure such as the issue of centralization vs. decentralization;
- Procurement regulations, rules and guidance; and
- Internal controls and legislative oversight.

B, External challenges

Thai pointed that Public procurement practitioners have always faced challenges imposed upon by a variety of environment factors including market, legal environment, political environment, organizational environment, and socio-economic and other environmental factors.

i. Market Environment

Market conditions have a great influence on public procurement practitioners' effort to maximize competition. Moreover, the market determines whether or not socio-economic objectives of procurement are accomplished, whether or not a governmental entity can fulfill its needs; the timeliness of fulfillment; and the quality and costs of purchased goods, services and capital assets. As there are different levels of economic growth among countries in the world, market conditions are very favorable in industrialized countries, while they may be unfavorable in developing countries.

Also as markets become more and more globalized through regional and international trade agreements and treaties, public procurement practitioners face a greater challenge. In addition to compliance with their governments' procurement laws and policies and international trade requirements as mentioned above, they face additional challenges including communication, currency exchange rates and payment, customs regulations, lead-time, transportation, foreign government regulations, trade agreements, and transportation.

ii. Legal Environment

Apart from public procurement regulations and rules, the legal environment refers to a broad legal framework that governs all business activities including research and development (regulations dealing with safety and health of new products), manufacturing (safety and health regulations at workplace and pollution control), finance (regulations dealing with disclosure of information), marketing (regulations dealing with deceptive advertising, disclosure of product characteristics), personnel (regulations dealing with equal opportunity for women and minorities), and contracts. Indeed, most aspects of contracts--public or private-- such as contract requirements, disputes, and breach of contract are governed under the same contract law. In developing and particularly transitional countries, where legal systems are not comprehensive, government contracts may need detailed provisions.

iii. **Political Environment**

In a democracy many individuals, groups, and organizations in the private sector including trade associations, professional associations, and business firms or companies (commonly known as interest groups) are actively involved in all aspects of the public procurement system. Having various interests, objectives and beliefs, interest groups are involved in the public procurement system in several ways such as lobbying legislative bodies to pass or alter procurement statutes, influencing implementation of these statutes, and influencing budget authorization and appropriations processes. Normally, a government program that is eventually adopted is a compromise among different views of interest groups, policy makers and management. In this democratic environment, there are cases of a strong coalition of policy makers, bureaucrats and interest groups in their effort to get their programs adopted.

iv. **Social, Economic, and Other Environment Forces**

While some countries impose social policies on their public procurement practices (such as a policy placing a fair proportion of government acquisitions with woman/minority-owned small business, or economically disadvantaged areas), most governmental entities --be it a developed or developing country or federal, state, and local governments-- use their large procurement outlays for economic stabilization or development purposes by preferring national or local firms over firms from other countries or other geographic locations. Public procurement practitioners may be in a favorable economic environment or market (with many competing tenderers in their country or local areas) or an unfavorable economic environment (where competition hardly exists). This environment would have a great impact on their practices as they may face an imperfect competitive market.

v. **Other Environmental Forces**

The public procurement system is also influenced by culture and technology. In a culture where giving gifts is a common public relation practice, it is difficult to distinguish between gifts and bribes. Moreover, rapidly advanced technology has forced public procurement to (a) adopt new procurement methods, such as the use of e-signature and purchase cards; and (b) be knowledgeable in many aspects and considerations of how to procure information technology.

2.7 Factors affecting Procurement Performance in Public Sector

2.7.1 Procurement Planning and Procurement performance

Procurement planning is one of the primary functions of procurement with a potential to contribute to the success of public institution's operations and improved service delivery Basheka, (2008). Despite this importance, very limited scientific research has been done to examine the extent to which efforts in procurement planning can contribute to effective public institution's performance. Procurement Planning entails the identification of what needs to be procured, how the organizations needs can best be met, the scope of the goods, works or services required, what procurement strategies or methods to be deployed, setting the time frames, and the accountability for the full procurement process.

According to Industry Manual, (2008) counsels that a procurement plan is an instrument for implementation of the budget and should be prepared by the user departments with a view to avoiding or minimizing excess votes in the entities' budgets and to ensure that procurements do not proceed unless there are funds to pay for them. This implies that all procurement plans must be well integrated into the budget process based on the indicative budget as appropriate and in compliance with the procurement law.

2.7.2 Procurement Procedures and Procurement performance

Procedures are operating instructions detailing functional duties or tasks. According to Saunders (1997), the division between public and private sectors creates two different worlds, requiring different approaches to procurement. Public ownership imposes obligations with regard to public accountability, leading to prescribed procedures and policies. All steps of the procurement cycle must be properly documented with each step being approved by the designated authority. Baily, Farmer, Jessop and Jones (2005) argued that public procurement procedures tend to be characterized by high levels of bureaucracy independent of order value; poor communications and focusing on unit price rather than long-term relations. Procurement perceptions are affected by the existing organizational structure, quality of internal communication system, past experience and resources available. A procurement policy may define the approval process for contracts of varying cost levels and may include role of purchasing, conduct of procurement staff, buyer-seller relationships, and operational issues.

Without elaborate and effective procurement procedures Government policy objectives would fail to meet the desired objectives.

2.7.3 Information Communications Technology and Procurement performance

Saunders (1997) reckoned that personnel in procurement are, in a sense, information processors. They receive, analyze, make decisions and distribute information in order to manage the flow of goods and services in the SC. ICT is an enabler for information sharing which organizations in the procurement system can use for eliminating bloated inventory levels caused by cumulative effect of poor information cascading up through a SC. Daugherty, Myers and Autry (1999) averred that information integration is also a key component in many automatic replenishment programs (ARP). Initiatives such as vendor managed inventory (VMI) and collaborative planning, forecasting and replenishment (CPFR) are based on an increased level of automation in both the flow of physical materials, goods and associated information between companies to improve the efficiency in the entire system. It shortens information processing time and tremendously improves procurement performance. Process integration can enhance procurement performance. ICT provides new ways to store, process, distribute and exchange key information with customers and suppliers in the entire procurement system.

2.7.4 Staff Qualification and Procurement performance

Saunders (1997) believed that successful functioning of organizational structures and effective operation of planning control systems is dependent on the quality and ability of staff employed. Strategic plans should include information on the acquisition, development, use and reward of human assets. Plans need to take into account the current state of development of the procurement function and the strategic direction in which its state might change. Multi-skilling provides employees with a variety of skills and should be developed extensively. Training is beneficial and generates more than the equivalent cost in payback. To further the goals of value-based management, all employees need broad and continuous education and training. Education, training and professional development should be skill, process oriented and continuous.

Leenders and Fearon (2002), noted that the large number of items, huge monetary volume involved, need for an audit trail, severe consequences of poor performance, and the potential contribution to effective organizational operations associated with the procurement function are

five major reasons for developing a sound, professionally managed procurement system. They further argue that qualifications are crucial for value-based management which requires employees to assess and improve processes while contributing to team performance. In addition, qualifications enhance staff ability to perform, enabling them to make better decisions, work as a team, and adapt to change, while increasing efficiency, quality, productivity and job satisfaction. Training is often for improving immediate work while education develops people for the long term. To enable individuals to create value consistently, both education and training are needed.

Cousins (2003), stressed that with the ever increasing popularity of purchasing partnership philosophy, organizations must take a closer look at the educational levels of procurement staff. With procurement's perceived movement from a clerical service to a strategic business function, the caliber of staff in terms of training, education and skills must increase to fulfill its strategic potential. The author asserted that employees need to learn new skills for improving work performance.

Procurement comprises a wide range of SC processes such as management of value analysis processes, supplier negotiations and quality certification; and supply market research as well as early supplier involvement in processes such as development of specifications and purchase of inbound transportation. This calls for higher professional skills for enhanced performance.

Baily *et al.* (2005) propounded that knowledge of the mission, the existence of top-down objectives with related performance measures, and process guidelines link individual or group performance to the firm's goals and expectations of upper management require good qualifications. The use of teams, cross-functional managers, broad process and linkage oriented job responsibilities, and extensive information systems enable individuals to balance conflicting objectives and improve processes. Professional qualifications are the fulcrum around which performance turns. Without well-motivated, able and well trained staff, even the more brilliantly conceived plans and strategies can fail. A motivated team whose members work for and with each other can beat a team of less motivated people even if they are greater in talent. To improve procurement performance, it is essential to understand the roles that are to be performed, the standards to be achieved and how performance is evaluated.

Understanding is what allows an employee to become an innovator, initiative taker, and creative problem solver in addition to being a good performer on the job, Goetsch& Davis, (2006). They list benefits of training as improved productivity, quality, safety and health, communication and better teamwork. The value-based procurement management paradigm requires a rethinking of the management of human resources. Education must cross necessary boundaries and motivate procurement team performance. However, simply possessing knowledge is less important than applying it. Attention should be moved to skills of doing jobs and demonstrating competences.

2.8. The five key purchasing variables

2.8.1 The Right Quality View

It can be defined in many ways but of the purpose of material purchasing. Specifications where the buying organization lay down clear and ambiguous requirements that must be met. The specification of the product, not the application Bail p. et al (1998). This implies reducing unnecessary varieties and standardizing to the most economic sizes, grades shapes, colors, types of parts and so on Gopalakshan p. and Sundaresan. M. (,2002).

2.8.2. The Right Quantity

Regular requirements are brought either for stock or else for direct use in operations or production. Requirement quantity can be aggregated or sub divide in various ways, and the quantity notified to the purchasing department as required is not necessarily the same as the quantity the department order from supplier.

Ordering policies used by purchasing include:

- ❖ Blanket order which group many small requirements together for contracted purposes.
- ❖ Period contracts stating an estimated total quantity for the period and agreed price in conjunction with call off order which states delivery date and quantity.
- ❖ Period contracts which specify a series of delivery dates and quantities.
- ❖ The economic order quantity (EOQ) etc Bail p. et al (1998).

Other methods in stock control

Reorder level methods of stocks control are procedures in which, whenever the stock of an individual item is down to a quantity called reorder level (order point) and order is initiated to obtain more stock. The order level is the average quantity required in the lead time plus buffer stock Bail p. et al (1998).

2.8.3. The Right Time

The recognition of 'time' as a key variable and the need to minimize time as waste in the supply chain has led to an increased degree of concern with time and responsiveness in recent years. The achievement of delivery on time is a standard purchasing objective. If goods and materials arrive late, work is not completed at the right time, sales may be less, production halted, and damage clauses may be involved by dissatisfying customers.

To improve this problem:

- ❖ The first step is to decide firmly and precisely what is required and when it is required the requirement dates notified to the purchasing department are achievable, purchasing can properly be expected to go out and achieve them.
- ❖ The vital step in achieving on time delivery is to ensure that suppliers know and fully aware that on-time delivery is an important element in their marketing mix Gopalakshan p. and Sundaresan. M. (,2002).

2.8.4 The Right Supplier

- ✓ The supplier have a strong enough financial base/financial capacity.
- ✓ Competency (the supplier, its people or its process competent and has adequate man-power to handle the order)
- ✓ The supplier in a position to honor the commitment without much follow-up Bail p. et al (1998).

2.8.5 The Right Price

The product or service offered at a competitive and reasonable price i.e. Market Price. Bail p. et al (1998)

2.9 Empirical Review

There have been several studies which have been conducted on factors affecting public procurement performance in Africa and other parts of the world.

Kiagi, (2013) Conducted an empirical research on factors affecting procurement performance in the Kenyan public sector pointed out the most important factor was found to be procurement planning followed by contract management as pointed out by most of the respondents. This was because good plans result to effectiveness and efficiency in attaining projected results. Mamiro, (2010) agrees with these findings and concludes that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs

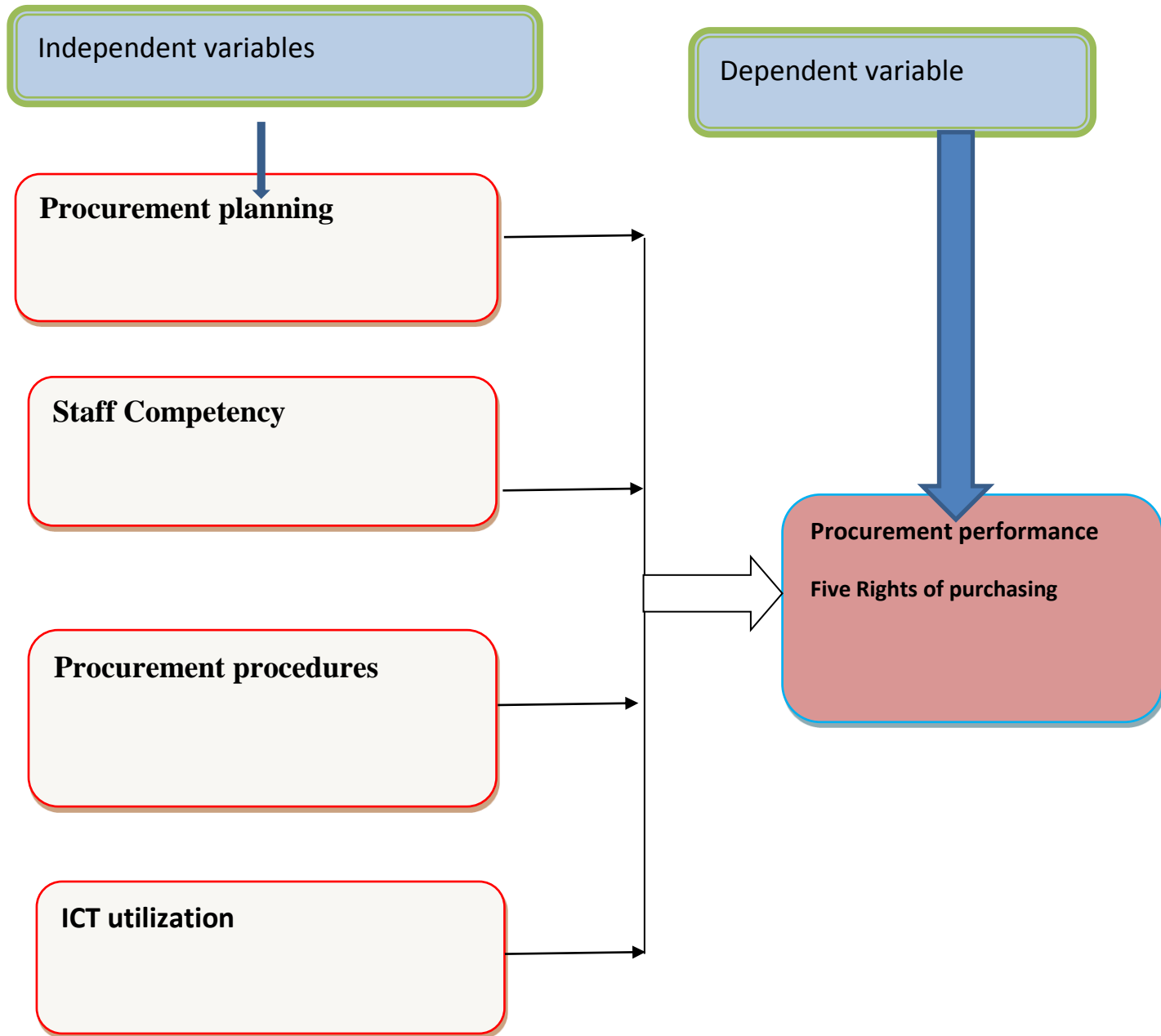
that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. The study found out that there was poor contract management at the sector characterized by delays in payments to suppliers which hampers greatly on their service delivery, lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without involvement of procurement function. Similarly, the study found out that there were no project progress reports filed with management.

Boniface (2014) Conducted an empirical research on factors influencing public procurement performance in the Kenyan public sector pointed out the Management of procurement life cycle in Kenyan public sector was the main dimension enhancing positive procurement performance and the use of open tendering as the most preferred method of procurement. And also the researchers studied about ICT adoption that is one of the challenges of procurement performance concluded that procurement systems were still largely manual, neither streamlined nor automated. This resulted in inefficiency and losses. ICT enables systems integration, promotes transparency, accountability, reliability and enhancement of relationship management. Staff members are yet to benefit from attendant ICT use and adoption. This study concluded that the state law office was performing on the negative overall records management was the most significant driver in procurement performance followed by procurement procedures, procurement staff qualifications and ICT.

2.10 Conceptual Framework

According to Bogdan and Biklen (2003) a conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experimental and the analytical/synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. A variable is a measurable characteristic that assumes different values among subjects. Independent Variables are changes that occur in an experiment that are directly caused by the experimenter. The independent variables in this study are procurement related procurement planning, staff competency, procurement procedures, and utilization of information communications technology. Procurement performance is a function of several variables is presented in dependent variable. Both independent variable and dependent variable are depicted in figure 2.1 below:

Figure 2.1 Conceptual Framework



Source: this model is adapted and modified from Kiage, J. O.(2013)

CHAPTER THREE RESEARCH METHODOLOGY

3.1. The Research Approach

The research is made based on mixed method research approach. Because, mixed research is useful to capture the best of both qualitative and quantitative data and in these the researcher also intended to examine detail features of procurement practices in the institution. The advantage of using mixed methods is that it enables to triangulate and support the data and result collected by questionnaire (Greener, 2008 and Saunders et.al, 2007).

According to Kothari (2004) mixed research method is defined as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language in to a single study. The quantitative approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion. Qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behavior Kothari, (2004).

The primary technique for collecting the primary quantitative data used a self-developed questionnaire containing self-assessment items measured on the 5-point Likert type of scales strongly disagree, disagree, neutral, agree, strongly agree and qualitative data collected through open-ended questions.

The qualitative approach in the study focused on detailing the results of the quantitative phase and describing factors affecting public procurement performance in more depth.

3.2. Research Design

Kothari (2004) stated that the research design is the conceptual arrangement within which the research conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Therefore the research is made based on descriptive and explanatory research type or design. According to Kothari (2004), descriptive research includes different kinds of surveys and

fact-finding enquiries. The major purpose of descriptive research is description of the state of affairs as it exists at present. The design is used to describe the characteristics of the independent variables (procurement plans and staff competency, procurement procedures, utilization of ICT). This helps to obtain information concerning the current status of the phenomenon to describe what the current situation is with respect to the variable of the study, the procurement performance. The same author asserts that in descriptive design the problem is structured and well understood and gives a report on things as they actually are.

Adams et al. (2007) states that explanatory research describes the phenomena as well as explains why behavior is the way it is. This research has applied explanatory type of research since it attempts to describe the relationship between independent (factors affecting procurement performance) and dependent variables (procurement performance).

3.3. Sample Design

The study was adopted the five sampling steps of Malhotra et al., (2006); these steps are closely interrelated and relevant to all aspects of the research. Those are identified target population, determine the sampling frame, select sampling techniques, determine the sample size and execute the sampling process.

3.3.1. Target population

The whole set of the universe from which a sample taken is called the population Saunders et al, (2007). Target population refers to the larger population to which the researcher ultimately would like to generalize the results of the study Mugenda, (2003). The population of this research was all employees of procurement and property disposal service, 140 federal budgetary organizations and suppliers. Target population of the study was all staffs (30) working at procurement directorate and contract management directorate of PPPDS, which are directly or indirectly involved in procurement process by taking the data from Human Resource Department of PPPDS. There are 173 federal budgetary organizations which are benefited from PPPDS procuring goods and service. Among the total federal budgetary organization, the researcher focused on 140 organizations those are located in Addis Ababa.

Other target population was participant bidders of framework agreement in 2014 participants bidders of procurement of electric and sanitary in 2014 randomly selected by taking recorded data from Procurement Directorate of PPPDS.

3.3.2. Sampling Frame

The sample frame of this study was procurement directorate and contract management directorate of PPPDS.

The procurement/purchasing department of federal budgetary organizations found only in Addis Ababa where included in the sampling frame of this study.

The other sample frame of this study was participant bidders from framework agreement in 2014 and participant bidders from procurement of electric and sanitary in 2014.

3.3.3. Sampling Unit

The researcher will have to decide one or more of sampling that he has to select for his study Kothari, (2004).The sampling unit of this study was managers and staffs who are working on procurement and related activities in PPPDS and the selected organizations and managers or marketing managers of selected participant bidders.

3.3.4. Sampling Technique

In regarding to selection of respondents, the researcher used both probability and non-probability sampling Saunders et.al, (2007). According to Walliman (2005), Saunders et al. (2007) purposive sampling is a useful sampling method which allows a researcher to get information from a sample of the population that one thinks knows most about the subject matter. The researcher used purposive or judgmental sampling method consists of the staff members of procurement directorate and contract management directorate of PPPDS. The researcher used simple random sampling technique to select respondents from federal budgetary organizations found in Addis Ababa and bidders from framework agreement participants and from the procurement of electric and sanitary material participants in 2014.

3.3.5. Sample Size

Determining sample size is very complex as it depends on other factors such as margins for errors, degree of certainty and statistical technique Corbetta, (2003). A general rule, one can say that the sample must be of an optimum size i.e., it should neither be excessively large nor too small Kothari, (2004).

The target population number in PPPDS consists of (2) procurement and contract management directorate, (19) Procurement Officers and (9) contract administration staffs. (Kothari, 2004) it needs to be emphasized that when the universe is a small one, it is no use resorting to a sample survey. When all items are covered, no element of chance is left and highest accuracy is obtained.

The remaining target populations of this study the staffs who are working on purchasing or procurement department from other federal organizations or users and bidders from framework agreement participants and from the procurement of electric and sanitary material participants in 2014.. Patrick, B. (2003) the researcher will take sampling technique by determining the sample proportion success and not success based on the experience from previous survey research response rate. Patrick, B. (2003) the return or success rate 50% is 'adequate'; 60% response rate is 'good' and 70% rate or higher is 'very good'. The researcher used for this study was 75% response rate and remaining 25% non-response rate, and sample size was determine at 95% confidence level.

Based on the above condition, to determine the sample size of PPPDS, suppliers and purchasing/procurement department of selected federal organizations are located only in Addis Ababa the researcher used the following formula Kothari, (2004):

Sample size is calculated based on below formula (Kothari, 2004);

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 (N - 1) + z^2 \cdot p \cdot q}$$

Where,

p = proportion of success = 75%

q = proportion of fail = 25%

n = sample size,

z = confidence level = 1.96

e = standard error = 5%

N= total population = 192

$$n = \frac{1.96^2(0.75)(0.25) * 192}{0.05^2(192 - 1) + 1.96^2 * (0.75)(0.25)}$$

n = 116 respondents

To calculate the number of respondent from each selected organizations and participant bidders based on sample (n). The sample size distributed for each selected organizations and participant bidders by using simple proportional calculations. The number of staffs who are working on procurement/ purchasing department from each selected organizations and sample proportions for each selected organizations are organizing as Table 3.1

Number of respondent for Federal Budgetary Organization and suppliers

$$= \frac{\text{No. each organization's staffs and suppliers}}{\text{total no. of all selected staffs and suppliers}} \times n$$

For Federal Budgetary Organization and suppliers respondent is calculated from remaining 86sample size after reduction of 30PPPDS respondents.

Table 3.1 Sample size in each selected organizations and suppliers:

Organizations and suppliers	Total Number of Procurement /Purchasing Staff and suppliers	Number of Purchasing/Procurement Staffs and suppliers
Federal Budgetary Organization	140	$(140/162) * 67 = 74$
2014 framework agreement procurement participants	15	$(15/162) * 67 = 8$
2014 procurement of electric and sanitary materials participant	7	$(7/162) * 67 = 6$
Total number of selected staffs from federal organization and suppliers	162	86
Total number of PPPDS staffs	30	30
Total Sample Size = PPPDS Staffs + selected staffs and suppliers = 116		

Source: Number of staffs obtained from PPPDS procurement records.

3.4. Sources of Data

There are two types of data, namely primary and secondary data. Researcher might use either both or one of the types of data depends on the research type and data collect by researcher Saunders et.al, (2007). For this research, researcher used both primary and secondary data:

3.4.1. Primary data sources

For this research purpose primary data was collected through standardize questionnaire. Primary data are originated by a researcher for the specific purpose of addressing the problem at hand Malhotra and Birks, (2006).

3.4.2. Secondary data sources

For secondary data, books, manuals, directives, proclamation, annual reports and articles related to procurement activities were used. This data served as reference and guide the focus of clarify research question.

3.5. Data analysis and presentation

According to Kombo and Tromp, (2011), the data analysis procedure includes the process of packaging the collected information putting in order and structuring its main components in a way that the findings can be communicated easily and effectively.

The data analysis was done using Microsoft Excel and SPSS software through descriptive analysis techniques including measures of central tendency (e.g. mean) measure of distributional shape (i.e., skewness), inferential analysis(e.g. correlation, regression).

The data was presented by using statistical tools like tables, figures, bar charts and others.

To further understand the relationship between the variables, regression analysis was carried out. In addition variables were regressed using a model and all coefficients interpreted. The model took this formula (Ho, 2006):

$$Y = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \epsilon$$

Where: Y = Dependent Variable (Public Procurement Performance)

χ_{1-n} = Independent variable (χ_1 is procurement planning, χ_2 is staff competency, χ_3 is procurement procedure and χ_4 is utilization of ICT)

β_0 = the constant

β_{1-n} = the regression coefficient or change included in Y by each χ

ϵ = error term

3.6. Data Collection Method

The data collection instrument, for collecting the primary quantitative data used a self-developed questionnaire containing self-assessment items measured on the 5-point Likert type of scale strongly disagree, disagree, neutral, agree, strongly agree and qualitative data collected through open-ended questions questionnaires were distributed to respondents, including a contingency to compensate for invalid and uncollected questionnaires. The questionnaires were administered

using a drop and pick later method. For this study an interview was conducted from Procurement and Information Communication Directorate Director.

3.7. Ethical Consideration

Each discipline should have its own ethical guidelines regarding the treatment of human research participants Vanderstoep and Johnston, (2009). Research ethics deal with how we treat those who participate in our studies and how we handle the data after we collect them. The researcher kept privacy (that left any personal questions), anonymity (protecting the identity of specific individuals from being known) and confidentiality or keeps the information confidential Saunders et.al, (2007). Accordingly, the questionnaire will distribute to voluntary participants and will have a clear introduction and instruction parts regarding the purpose of the research.

3.8. Validity and Reliability

Statistical validity also used to measure the validity of the research though use of correct statistical procedure and instruments Neuman, (2007). The researcher first tried to address related and extensive literature to have complete data on the research topics. This comprehensive approach helps to ensure face and content validity of the survey instrument. Researcher reviewed an extensive literature to develop questions for the survey. Researcher was conducted pilot test on survey instrument (questionnaire) to check the questionnaire is complete, free from any biased and confusion word to selected few respondents. The instrument and research method also revised and commented by to professional advisor and expertise before going to data collection. Moreover, to insure the statistical validity of the study, the researcher has collected quantitative data using survey questioner and analysis the data using correct statistical instruments like descriptive statistics, inferential statistics, correlation and regression analysis to see the relationship of the variable and reach concrete conclusion.

Reliability refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings Saunders et al. (2007). This research used the most popular test of inter-item consistency reliability that is the Cronbach's coefficient alpha, to identify the validity of items used in survey. Calculating Cronbach's alpha (α) has become a common practice when a multiple-item measurement of a concept or construct are employed because it is easier to use in comparison to other estimate Willson, (2003).

Cronbach's alpha measure is fall between range of 0 and 1, Sekaran, (2000) the Cronbach's alpha value is less than 0.6 are considered to be poor, if it is above 0.7 are acceptable, and those over 0.8 are good. The Cronbach's alpha value of each dimension of independent variables (factor affecting procurement performance) and dependent variable (procurement performance) is listed in below table 3.3 indicate all Cronbach's alpha value is greater than 0.7, which means all items are reliable and data has internal consistency and able to accepted for further analysis.

Table 3.2 Cronbach's Alpha Summary

S. No	Variables	Cronbach's Alpha Value	Items Cronbach's Alpha
1.	Procurement Planning	.771	5
2.	Staff Competency	.768	5
3.	Procurement Procedures	.703	5
4.	Information Communication Technology	.764	5
5.	Procurement performance evaluation	.776	5

The Cronbach's alpha coefficient is an indicator of internal consistency of the scale. A high value of the Cronbach's alpha coefficient suggests that the items that make up the scale "hang together" and measure the same underlying construct. A value of Cronbach's alpha above 0.70 can be used as a reasonable test of scale reliability Gaur A. and Gaur S., (2009).

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The main objective of this study was to examine factors affecting public procurement performance in Public Procurement and Property Disposal Services. In this regard, this chapter presents the results and findings of the study as collected from the sample population. The data was gathered exclusively from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. To enhance quality of data obtained, likert type questions were included whereby respondents indicated the level of agreement to which the variables were practiced in a five point likert scale and open ended questionnaire. Coded responses were entered into Statistical Package for the Social Sciences (SPSS) version 23, for data analysis. The data have been presented by tabulation, and some figures. The chapter covers respondents' general information based on demographic information and findings based on how the research questions/objectives affect procurement performance in Public Procurement and Property Disposal Services and the results are presented and interpreted.

4.2. Demographics Data

In this section, the researcher analyzed and discussed demographic information of the respondents which are relevant to the study were summarized on the tables here below and the frequencies and percentages are calculated and described.

4.2.1. Questioners Response Rate

The total questionnaire distribute were 116 for PPPDS staffs, selected budgetary federal organizations which are located only in A.A and suppliers and a total of 97 were properly filled and returned representing 84% rate of return.

Table 4.1 Response Rate

Response Rate	Frequency	Percentage
Responded	97	84
Not responded	19	16
Total	116	100

Source: Survey Result (2017)

4.2.2 Educational Level of Respondents

The education level of the respondents is summarized in the table 4.2 here below.

Table 4.2 Educational Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	Diploma	3	3.1	3.1	86.6
Valid	First Degree	81	83.5	83.5	83.5
	Second Degree	13	13.4	13.4	100.0
	Total	97	100.0	100.0	

Source: Survey Result (2017)

The level of education of the respondents show that 3.1% were diploma holders, while 83.5%, who were the majority, were first degree holders, and 13.4% were second degree and above holders. This shows that the respondents were well educated and could understand and respond to the questionnaire.

4.2.3 Relevant work experience of Respondents

Table 4.3 Relevant work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	3	3.1	3.1	3.1
	2-4 years	25	25.8	25.8	28.9
	4-6 years	23	23.7	23.7	52.6
	above 6 years	46	47.4	47.4	100.0
	Total	97	100.0	100.0	

Source: Survey Result (2017)

As it is shown in table 4.3. above, from the total valid respondents, 3.1% (3 respondents) of them have two and below two years of experience, 25.8% (25 respondents) of the respondents have two to four years work experience, (23.7%) 23 respondents have four to six years work experience and the rest 46 of them which are 47.4% of them have above 6 years work experience.

In general, It can be seen that the majority of the respondents has spent more than 4 years working in the procurement area and from this figure we understand that the information obtained from them is reliable or dependable since they have good know-how and experience about the concept of procurement performance.

4.2.4 Position of Respondents

The table 4.4.below depicts the distribution and frequency of respondents according to their position in the organization.

Table 4.4 Designation/position of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
expert	48	49.5	49.5	49.5
Head of /department/unit/division/directorate	16	16.5	16.5	59.8
Senior expert	39	34.0	34.0	93.8
Total	97	100.0	100.0	

Source: Survey Result (2017)

As it is shown in table 4.4.above, from the total valid respondents, 49.5% (48 respondents) of them were experts, 16.5% (16 respondents) of them were head of /department/unit/division/directorate, 34% (39 respondents) of them were senior experts and the majority of the respondents 48% were experts. This implies that the majority were able with adequate designation authority. Thus, it is clear that the experienced and educated respondents

could understand the problems in procurement related activities and give sufficient and correct information that could contribute through the validity of this study.

4.3 Procurement planning and its effect on procurement performance

Procurement planning is the future needs to procure goods and services for the organization to meet its strategic goals, thus, performing the procurement plan should be proactive; failure to request the required goods or services early will bring to postpone the work program to subsequent years, it is also a means for under-utilization of the budget. As procurement is a long and time-consuming process, contract planning should “begin as soon as the agency need is identified, preferably well in advance of the fiscal year in which contract award is necessary” (Thai, 2009).

Table 4.5 Response summary on procurement planning

No.	Questions	Scale	Percent	Cumulative percent	Mean
1	In PPPDS end users adequately plan their budget for the procurement items that are going to be procured	Strongly disagree	1.0	1.0	2.39
		Disagree	68.0	69.1	
		Neutral	21.6	90.7	
		Agree	9.3	100.0	
		Strongly agree			
2	End users are raised their procurement need on time	Strongly disagree	17.5	17.5	2.13
		Disagree	57.7	75.3	
		Neutral	18.6	93.8	
		Agree	6.2	100.0	
		Strongly agree			
3	Public sector provides clear specification for the procurement items that are going to be procured	Strongly disagree	18.6	18.6	2.24
		Disagree	52.6	71.1	
		Neutral	15.5	86.6	
		Agree	13.4	100.0	
		Strongly agree			
4	End users requisitions are planned and programmed	Strongly disagree	1.0	1.0	2.38
		Disagree	70.1	71.1	
		Neutral	18.6	89.7	
		Agree	10.3	100.0	
		Strongly agree			
5	In PPPDS procurement plan prepared through involvement and participating of all end users	Strongly disagree	12.4	12.4	2.29
		Disagree	54.6	67.0	
		Neutral	24.7	91.8	
		Agree	8.2	100.0	
		Strongly agree			

Source: Survey Result (2017)

Table 4.5 shows the percentage and distribution of the respondents' reply for procurement planning factors of procurement performance. It is taken in to account that numbers 1, 2, 3, 4 and 5 represent far strongly disagree, disagree, neutral, agree and strongly agree respectively. The subsequent analyses were conducted based on table 4.5 above.

The mean value 2 and less indicated high factors of procurement performance, mean value greater than 2 and less than 3 indicate moderate factors of procurement performance, mean value greater than 3 indicate low factors of procurement performance related with procurement planning.

About 10 % of the respondents strongly disagree that in PPPDS end users adequately plan their budget for the procurement items that are going to be procured, 68% of the respondents disagree, 21% of the respondents neutral, 9.30% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that end users adequately plan their budget for the procurement items that are going to be procured. In PPPDS end users adequately plan their budget for the procurement items that are going to be procured, as indicated a mean of 2.39. This indicates that the end users do not adequately plan their budget for the procurement items that are going to be procured.

Also About 17.5% of the respondents strongly disagree that end users are raised their need on time, 57.7% of the respondents disagree, 18.6% of the respondents neutral, 6.20% of the respondents neutral and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that end users are raised their need on time. End users are raised their need on time, as indicated a mean of 2.13. This implies that in PPPDS end users not raised their need on time.

About 18.60% of the respondents strongly disagree that Public sector provides clear specification for the procurement items that are going to be procured, 52.60% of the respondents disagree, 15.50% of the respondents neutral, 13.40% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Public sector provides clear specification for the procurement items that are going to be procured. Public sector provides clear specification for the procurement items that are going to be procured, as

indicated a mean of 2.24. This indicates that the public sector provides unclear specification for the procurement items that are going to be procured.

About 1% of the respondents strongly disagree that End users requisitions are planned and programmed, 70.10% of the respondents disagree, 18.6% of the respondents neutral, 10.30 of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that End users requisitions are planned and programmed. End users requisitions are planned and programmed, as indicated a mean of 2.38. This indicates that end users requisitions are not planned and programmed.

About 12.4 % of the respondents strongly disagree that In PPPDS procurement plan prepared through involvement and participating of all end users, 54.60% of the respondents disagree, 24.70% of the respondents neutral, 8.20% of the respondent agree and none of strongly agree. This shows that more than half of the respondents disagreed that In PPPDS procurement plan prepared through involvement and participating of all end users. In PPPDS procurement plan prepared through involvement and participating of all end users, as indicated a mean of 2.29. This indicates that in PPPDS procurement plan all users does not involves.

In general, from the analysis all of the respondents agreed that factors related with procurement planning having the greatest effects on public procurement performance in PPPDS, because as the above table indicates that all mean value is less than 3. This indicated that the lowest mean values are public sector provides clear specification for the procurement items that are going to be procured and End users requisitions are planned and programmed are the major factors of procurement performance in PPPDS. Agreeably Mamiro (2010) in his findings underscores these facts and concludes that one of the major setbacks in public procurement is poor procurement planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of skills of procurement staff responsible for procurement.

Basheka, (2008) agreeably concludes that planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today. The results further revealed that the departments prepared

annual procurement plans and that the procurement plans were prepared and the goals set participatory. Procurement plans therefore influence procurement performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured.

The findings concluded with Thai (2004) that there cannot be a good procurement budget without a plan, and there can be no procurement without a budget to fund it. Planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today.

4.4 Staff Competency and its effect on procurement performance

The performance of the procurement function in any organization requires that the individuals handling the procurement activity should have the necessary professional qualifications and employee level of skill influences the procurement performance (Samuel &Njeru, 2014).

Table 4.6 Response summary on Staff Competency

No.	Questions	Scale	Percent	Cumulative percent	Mean
1	In PPPDS the procurement activity is conducted by competent procurement staffs	Strongly disagree	4.1	4.1	2.32
		Disagree	69.1	73.2	
		Neutral	17.5	90.7	
		Agree	9.3	100.0	
		Strongly agree			
2	Procurement staffs have ability to apply public procurement principles and evaluate bidding document	Strongly disagree	20.6	20.6	2.26
		Disagree	45.4	66.0	
		Neutral	21.6	87.6	
		Agree	12.4	100.0	
		Strongly agree			
3	Procurement staffs have the ability to negotiate with users and suppliers	Strongly disagree	11.3	11.3	2.39
		Disagree	53.6	64.9	
		Neutral	19.6	84.5	
		Agree	15.5	100.0	
		Strongly agree			
4	PPPDS procurement staffs have the necessary skills and competence to handle complex and strategic procurement items	Strongly disagree	1.0	1.0	2.52
		Disagree	61.9	62.9	
		Neutral	21.6	84.5	
		Agree	15.5	100.0	
		Strongly agree			
5	Procurement staffs have the ability to understand users need market environment and suppliers capacity	Strongly disagree	5.2	5.2	2.58
		Disagree	48.5	53.6	
		Neutral	29.9	83.5	
		Agree	16.5	100.0	
		Strongly agree			

Source: Survey Result (2017)

Table 4.6 shows the percentage and distribution of the respondents' reply for staff competency factors of procurement performance. It is taken in to account that numbers 1, 2, 3, 4 and 5 represent far strongly disagree, disagree, neutral, agree and strongly agree respectively. The subsequent analyses were conducted based on table 4.6 above.

The mean value 2 and less indicated high factors of procurement performance, mean value greater than 2 and less than 3 indicate moderate factors of procurement performance, mean value greater than 3 indicate low factors of procurement performance related with staff competency.

About 4.10% of the respondents strongly disagree that In PPPDS the procurement activity is conducted by competent procurement staffs, 45.40% of the respondents disagree, 21.60% of the respondents neutral, 12.40% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that In PPPDS the procurement activity is conducted by competent procurement staffs. In PPPDS the procurement activity is conducted by competent procurement staffs, as indicated a mean of 2.32. This indicates that In PPPDS the procurement activity is not conducted by competent procurement staffs.

Also about 20.6 % of the respondents strongly disagree that Procurement staffs have ability to apply public procurement principles and evaluate bidding document, 69.10% of the respondents disagree, 17.5% of the respondents neutral, 9.30% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that the Procurement staffs have ability to apply public procurement principles and evaluate bidding document. Procurement staffs have ability to apply public procurement principles and evaluate bidding document, as indicated a mean of 2.26. This indicates that the Procurement staffs have no ability to apply public procurement principles and evaluate bidding document.

Also about 11.30 % of the respondents strongly disagree that Procurement staffs have the ability to negotiate with users and suppliers, 53.60% of the respondents disagree, 19.60% of the respondents neutral, 15.50% of the respondents agree and none of the respondent strongly agree.

This shows that more than half of the respondents disagreed that PPPDS Procurement staffs have the ability to negotiate with users and suppliers. Procurement staffs have no the ability to negotiate with users and suppliers, as indicated a mean of 2.39. This indicates that the Procurement staffs have no the ability to negotiate with users and suppliers.

Also about 10 % of the respondents strongly disagree that PPPDS procurement staffs have the necessary skills and competence to handle complex and strategic procurement items, 48.50% of the respondents disagree, 21.60% of the respondents neutral, 15.50% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that PPPDS procurement staffs have the necessary skills and competence to handle complex and strategic procurement items. PPPDS procurement staffs have the necessary skills and competence to handle complex and strategic procurement items, as indicated a mean of 2.52. This indicates that PPPDS procurement staffs have no the necessary skills and competence to handle complex and strategic procurement items.

Also about 5.20% of the respondents strongly disagree that Procurement staffs have the ability to understand users need market environment and suppliers capacity, 61.90% of the respondents disagree, 21.60% of the respondents neutral, 15.50% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Procurement staffs have the ability to understand users need market environment and suppliers capacity. Procurement staffs have the ability to understand users need market environment and suppliers capacity, as indicated a mean of 2.58. This indicates that Procurement staffs have no the ability to understand users need market environment and suppliers capacity.

In general, from the analysis all of the respondents agreed that factors related with staff competency having the greatest effects on public procurement performance in PPPDS, because as the above table indicates that all mean value is less than 3. This indicated that the lowest mean values are procurement staffs have on the ability to apply public procurement principles and evaluate bidding document and the procurement activity is not conducted by competent procurement staffs are the major factors of procurement performance in PPPDS. This means that the level of knowledge of PPPDS employees who is participated in the public procurement

process needs improvement. Competent staff would ensure that items services are procured as and when the need is expected. Lysons and Gillingham, (2003) confirms this indicating that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

4.5 Procurement procedures and its effect on procurement performance

Procurement encompasses the whole process of acquiring property and/or services. It begins when an agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery of and payment for the property and/or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract (Waters 2004).

Table 4.7 Response summary on procurement procedures

No.	Questions	Scale	Percent	Cumulative percent	Mean
1	Tender evaluation conducted according to predetermined set criteria in the bid document	Strongly disagree	14.4	14.4	2.10
		Disagree	63.9	78.4	
		Neutral	18.6	96.9	
		Agree	3.1	100.0	
		Strongly agree			
2	Contract management is conducted according to the bidding to the bidding and contract document terms and conditions	Strongly disagree	30.9	30.9	1.94
		Disagree	48.5	79.4	
		Neutral	16.5	95.9	
		Agree	4.1	100.0	
		Strongly agree			
3	In PPPDS procured items are tested and inspected accordingly at the time of delivery	Strongly disagree	16.5	16.5	2.23
		Disagree	48.5	64.9	
		Neutral	30.9	95.9	
		Agree	4.1	100.0	
		Strongly agree			

4	In PPPDS bidders complaint is handled without bureaucratic system	Strongly disagree	10.3	10.3	2.16
		Disagree	68.0	78.4	
		Neutral	16.5	94.8	
		Agree	5.2	100.0	
		Strongly agree			
5	In PPPDS procurement performance is adequately monitor/evaluate	Strongly disagree	19.6	19.6	2.15
		Disagree	49.5	69.1	
		Neutral	26.8	95.9	
		Agree	4.1	100.0	
		Strongly agree			

Source: Survey Result (2017)

Table 4.7 shows the percentage and distribution of the respondents' reply for procurement procedures factors of procurement performance. It is taken in to account that numbers 1, 2, 3, 4 and 5 represent far strongly disagree, disagree, neutral, agree and strongly agree respectively. The subsequent analyses were conducted based on table 4.5 above.

The mean value 2 and less indicated high factors of procurement performance, mean value greater than 2 and less than 3 indicate moderate factors of procurement performance, mean value greater than 3 indicate low factors of procurement performance related with procurement procedures.

About 14.4 % of the respondents strongly disagree that tender evaluation conducted according to predetermined set criteria in the bid document, 63.90% of the respondents disagree, 18.60% of the respondents neutral, 3.10% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Tender evaluation conducted according to predetermined set criteria in the bid document. Tender evaluation conducted according to predetermined set criteria in the bid document, as indicated a mean of 2.10. This indicates that in PPPDS tender evaluation does not conducted according to predetermined set criteria in the bid document.

About 30.90% of the respondents strongly disagree that contract management is conducted according to the bidding and contract document terms and conditions, 48.50% of the respondents disagree, 16.50% of the respondents neutral, 4.10% of the respondents agree and none of the respondent strongly agree. This shows majority of the respondents disagreed that Contract management is conducted according to the bidding and contract document terms and conditions. Contract management is conducted according to the bidding and contract document terms and conditions, as indicated a mean of 2.94. This indicates that In PPPDS Contract management is not conducted according to the bidding and contract document terms and conditions.

Also about 16.50% of the respondents strongly disagree that, procured items are tested and inspected accordingly at the time of delivery 48.50% of the respondents disagree, 30.90% of the respondents neutral, 4.10% of the respondents agree and none of the respondent strongly agree. This shows majority of the respondents disagreed that in PPPDS procured items are not tested and inspected accordingly at the time of delivery. Procured items are tested and inspected accordingly at the time of delivery, as indicated a mean of 2.23. This indicates that in PPPDS procured items are not tested and inspected accordingly at the time of delivery.

Also about 10.30% of the respondents strongly disagree In PPPDS bidders complaint is handled without bureaucratic system, 68% of the respondents disagree, 16.50% of the respondents neutral, 5.20% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that In PPPDS complaints are handled and treated. In PPPDS complaints are not handled and treated, as indicated a mean of 2.16. This indicates that in PPPDS complaints are not handled and treated.

Also about 10.30% of the respondents strongly disagree in PPPDS procurement performance is adequately monitor/evaluate, 68% of the respondents disagree, 16.50% of the respondents neutral, 5.20% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that in PPPDS procurement performance is adequately monitor/evaluate. In PPPDS procurement performance is adequately monitor/evaluate, as indicated a mean of 2.15. This indicates that in PPPDS procurement performance is not adequately monitor/evaluate.

In general, from the analysis all of the respondents agreed that factors related with procurement procedures having the greatest effects on public procurement performance in PPPDS, because as the above table indicates that all mean value is less than 3. This indicated that the lowest mean

values are Contract management is conducted according to the bidding to the bidding and contract document terms and conditions and evaluate bidding document and Tender evaluation conducted according to predetermined set criteria in the bid document are the major factors of procurement performance in PPPDS. This is also confirmed by Thai (2001), Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, and the potential for manipulation of contract public expenditure is slow, ineffective, expensive and often corrupt.

4.6 ICT utilization and its effect on procurement performance

Information Communication Technology (IT) is a technology that involves use of computers, software and internet connections infrastructure for supporting information processing and communication functions (Crompton 2007). ICT is an enabler for information sharing which organizations in the procurement system can use for eliminating bloated inventory levels caused by cumulative effect of poor information cascading up through a procurement process.

Table 4.8 Response summary on ICT utilization

No.	Questions	Scale	Percent	Cumulative percent	Mean
1	Information Communication Technology has brought satisfaction to all stakeholders in PPPDS	Strongly disagree	4.1	4.1	2.39
		Disagree	61.9	66.0	
		Neutral	24.7	90.7	
		Agree	9.3	100.0	
		Strongly agree			
2	Information Communication Technology has support to reduced paper work in PPPDS	Strongly disagree	4.1	4.1	2.49
		Disagree	42.3	46.4	
		Neutral	53.6	100.0	
		Agree	100.0		
		Strongly agree			
3	Information Communication Technology has play role to increase quality goods/service delivery performance in PPPDS	Strongly disagree	16.5	16.5	2.26
		Disagree	54.6	71.1	
		Neutral	15.5	86.6	
		Agree	13.4	100.0	
		Strongly agree			
4	Information Communication Technology has increased the output of procurement officers in PPPDS	Strongly disagree	8.2	8.2	2.28
		Disagree	66.0	74.2	
		Neutral	15.5	89.7	
		Agree	10.3	100.0	
		Strongly agree			
5	Information Communication Technology has speed up the procurement process	Strongly disagree			2.34
		Disagree	74.2	74.2	
		Neutral	17.5	91.8	
		Agree	8.2	100.0	
		Strongly agree			

Source: Survey Result (2017)

Table 4.8 shows the percentage and distribution of the respondents' reply for ICT utilization factors of procurement performance. It is taken in to account that numbers 1, 2, 3, 4 and 5 represent far strongly disagree, disagree, neutral, agree and strongly agree respectively. The subsequent analyses were conducted based on table 4.5 above.

The mean value 2 and less indicated high factors of procurement performance, mean value greater than 2 and less than 3 indicate moderate factors of procurement performance, mean value greater than 3 indicate low factors of procurement performance related with ICT utilization.

About 4.10% of the respondents strongly disagree that Information Communication Technology has brought satisfaction to all stakeholders in PPPDS, 61.90% of the respondents disagree, 24.70% of the respondents neutral, 9.30% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Information Communication Technology has brought satisfaction to all stakeholders in PPPDS. Information Communication Technology has brought satisfaction to all stakeholders in PPPDS, as indicated a mean of 2.39. This indicates that Information Communication Technology has no brought satisfaction to all stakeholders in PPPDS.

About 4.10% of the respondents strongly disagree that Information Communication Technology has support to reduced paper work in PPPDS, 42.30% of the respondents disagree, 53.60% of the respondents neutral and none of the respondent agree and strongly agree.. Whereas, when we compare the response rate of agree and disagree 42.30% of the respondents disagree and 4.10% of the respondents strongly disagree that end users are raised their need on time in PPPDS while none of the respondent agree and strongly agree. This shows that the response rate of disagree more than agree and the mean value of Information Communication Technology has support to reduced paper work in PPPDS is 2.49. Therefore, this indicates that Information Communication Technology has not support to reduced paper work in PPPDS.

About 16.50% of the respondents strongly disagree that Information Communication Technology has play role to increase quality goods/service delivery performance in PPPDS, 54.60% of the respondents disagree, 15.50% of the respondents neutral, 13.40% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Information Communication Technology has play role to increase quality goods/service delivery performance in PPPDS. Information Communication Technology has

play role to increase quality goods/service delivery performance in PPPDS, as indicated a mean of 2.26. This indicates that Information Communication Technology has no play role to increase quality goods/service delivery performance in PPPDS.

About 8.20% of the respondents strongly disagree that Information Communication Technology has increased the output of procurement officers in PPPDS, 66% of the respondents disagree, 15.50% of the respondents neutral, 10.30% of the respondents agree and none of the respondent strongly agree. This shows that more than half of the respondents disagreed that Information Communication Technology has increased the output of procurement officers in PPPDS. Information Communication Technology has increased the output of procurement officers in PPPDS, as indicated a mean of 2.28. This indicates that Information Communication Technology has not increased the output of procurement officers in PPPDS.

About 74.20% of the respondents disagree that Information Communication Technology has speed up the procurement process, 17.50% of the respondents neutral, 8.20% of the respondents agree and none of the respondent strongly disagree and strongly agree. This shows that more than half of the respondents disagreed that Information Communication Technology has speed up the procurement process. Information Communication Technology has speed up the procurement process, as indicated a mean of 2.34. This indicates that in PPPDS Information Communication Technology has not speed up the procurement process.

In general, from the analysis all of the respondents agreed that factors related with ICT utilization having effects on public procurement performance in PPPDS, because as the above table indicates that majority mean value is less than 3. Information Communication Technology has no play role to increase quality goods/service delivery performance in PPPDS and Information Communication Technology has no play role to increase quality goods/service delivery performance in PPPDS are the major factors of procurement performance in PPPDS. Therefore, utilization of ICT in PPPDS not increase quality goods/service delivery performance in PPPDS because most of the procurement functions are subjected to manual procedures that are slow, inaccurate and infective and advanced e-procurement technology still not applied in PPPDS. This implies that ICT usage no more contribution in the PPPDS procurement process.

Moreover, according to the research conducted by Boniface Ikumu and Chimwani, (2014) This has negative impact on procurement procedures since the public sector organizations cannot effectively monitor and coordinate procurement procedures. From this, one can understand that

well organized, automated and integrated ICT systems can increase the procurement performance. ICT utilization that is one of the factors of procurement performance concluded that procurement systems were still largely manual, neither streamlined nor automated. This resulted inefficiency and losses.

From open ended questions, one of the influences of PPPDS procurement performance is not used modern ICT technology, i.e. not applied e- procurement technology compared to the current and engineering technology.

4.7. Problems of Procurement Performance in PPPDS

The researcher identified the major factors of procurement performance by ranking the mean value of the respondents

The factors listed in the questionnaire derived from the secondary data mainly affecting procurement performance in PPPDS from PPPDS’s annual report 2007 and 2008 E.C and from literature review.

The overall rankings of factors that affect the performance of procurement have been established as shown in table 4.9.

Table 4.9 factors of procurement performance in PPPDS

Variable which have impact on procurement performance	N	Mean	Rank
End users not raised their need on time	97	6.0	1
Inadequate linking of demand to the budget	97	6.1	2
Client’s financial difficulties	97	6.5	3
Inadequate monitoring and evaluation of procurement performance	97	6.6	4
Lack of clear process and procedure	97	7.4	5
Shortage of foreign currency	97	7.6	6
Accountability, fraud and corruption	97	7.9	7
non-compliance with procurement policy and regulations	97	8.3	8
Lack of proper knowledge, skills and capacity staffs	97	9.1	9
Poor implementation of Information communication technology	97	9.2	10

Source: Survey Result (2017)

Based on the data listed above, a total of ten factors that contributed to affect the performance of procurement were identified, ranked and analyzed. The low mean indicated in the above table having the greatest influence on the performance of public procurement in PPPDS.

From the above factors, five factors i.e. end users not raised their need on time, inadequate monitoring and evaluation of procurement performance, shortage of foreign currency, inadequate linking of demand to the budget and client’s financial difficulties are related to procurement planning, three factors i.e. lack of clear process and procedure, non-compliance with procurement policy and regulations and accountability, fraud and corruption are related to procurement procedure, there is one factor i.e. lack of proper knowledge, skills and capacity staffs related to staff competency and there is one factor i.e. Poor implementation of Information communication technology related to utilization of information communication technology.

From open ended questions, the respondents were mentioned some factors that are affected the performance of procurement process in PPPDS. These are lack of motivation, organizational structure, unattractive salary scale, increased customer demand, and outdated procedures and policies.

4.8 Procurement Performance Evaluation

The researcher was evaluated PPPDS’s procurement performance by five rights of Purchasing

Table 4. 10PPPDS’s Procurement performance Descriptive Statistics

Statements	Mean	Std.dev
With Right Quality	1.89	.789
At Right Time	1.77	.810
At Right Price	2.32	.678
From the Right Source	2.24	.674
Right Quantity	2.46	.550

Source: Survey Result (2017)

As indicated in the above descriptive statistics table, PPPDS procurement process team is working at the right quality with a mean value of 1.89, at the right time with mean value of 1.77, at the right price with a mean value of 2.32, from the right source with a mean value of 2.24 and at the right quantity with a mean value of 2.46.

Therefore, from the result above, one can conclude that the procurement performance is very poor because, with right quality, in timely delivery, at the right price and quantity of materials purchased which is below average point.

It is favorable that the goods and services are appropriate and that they are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time, and with specified amount.

Procurement performance has been described as the degree of achievement of certain effort or undertaking. It relates to the prescribed goals or objectives which form the project parameters. It is all about meeting or exceeding stake holders' needs and expectations from a project. It invariably involves placing consideration on following major procurement elements i.e. time, cost, quality, quantity and source Aldhfayan, (2008)

4.9 Tests and Statistical Analysis

In this study the researcher used inferential analysis is concerned with the various tests of significance for normality, autocorrelation and multicollinearity in order to determine the validity of data. The data was sorted to group questions according to applicable constructs under test. Finally correlation and standard multiple regression analysis were performed. Tests and analysis of the data are presented below:

4.9.1 Normality Test

Frequency distributions come in many different shapes and sizes. It is quite important, therefore, to have some general descriptions for common types of distributions. In an ideal world our data would be distributed symmetrically around the center of all scores. As such, if we drew a vertical line through the center of the distribution then it should look the same on both sides. This is known as a normal distribution and is characterized by the bell-shaped curve. This shape basically implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around the central valueField, (2006).

In a normal distribution, the values of skewness are 0. If a distribution has values of skew above or below 0 then this indicates a deviation from normal (Field, 2009). As we have seen from the below table, the skewness approaches or around to Zero and normal distribution figure 4.1.also show the data is almost normal. All variables were found to be normal.

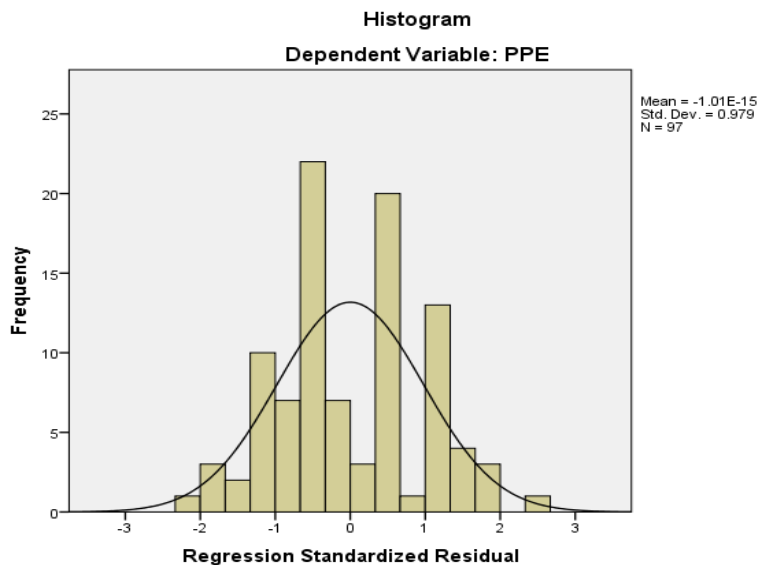
Table 4.11Tests of normality Procurement performance

	Procurement Planning	Staff Competency	Procurement Procedures	Utilization of ICT	Procurement Performance
Skewness	.538	.443	.546	.640	.194
Std. Error of Skewness	.245	.245	.245	.245	.245

Source: Survey Result (2017)

Skewed distributions are not symmetrical and instead the most frequent scores (the tall bars on the graph) are clustered at one end of the scale. A skewed distribution can be either positively skewed (the frequent scores are clustered at the lower end and the tail points towards the higher or more positive scores) or negatively skewed (the frequent scores are clustered at the higher end of and the tail points towards the lower more negative scores) (Field, 2005).

Figure 4.1Normal distribution of the data



Where: PPE = Procurement Performance

4.9.2 Correlation Relation

The correlation of the variable is measured by Pearson correlation coefficient. The result of the Pearson correlation is presented in the following table and interpreted by the guide line suggested by Field (2006); he mentioned that the Pearson correlation coefficient shows the relationship and direction between the predictor and outcome variable. Accordingly, if the relationship is measured in the range of 0.1 to 0.29 it is a weak relationship, 0.30 to 0.49 is moderate, above 0.50 shows strong relationship; while the positive and negative sign tell us the direction of their relationship.

Table 4.12 Pearson Correlation Information

		Procurement planning	Staff Competency	Procurement procedures	Utilization of ICT	Procurement performance
Procurement planning	Pearson Correlation	1	.121	.484**	.327**	.681**
	Sig. (2-tailed)		.239	.000	.001	.000
	N	97	97	97	97	97
Staff Competency	Pearson Correlation		1	.303**	.331**	.578**
	Sig. (2-tailed)			.003	.001	.000
	N		97	97	97	97
Procurement procedures	Pearson Correlation			1	.346**	.703**
	Sig. (2-tailed)				.001	.000
	N			97	97	97
Utilization of ICT	Pearson Correlation				1	.631**
	Sig. (2-tailed)					.000
	N				97	97
Procurement performance	Pearson Correlation					1
	Sig. (2-tailed)					
	N					97

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

* . Correlation is significant at the 0.05 level (2-tailed).

The above correlation table shows that the correlation relationship between predictor variables (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) and dependent variables (Procurement Performance).

Accordingly, procurement performance has strong and positive correlation with all procurement factors at Pearson correlation (r) value of 0.681, 0.578, 0.703 and 0.631 respectively as

Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT with significant value of $P < 0.01$.

4.9.3 Multicollinearity Assumption

Multicollinearity exists when there is a strong correlation between two or more predictors in a regression model Saunders et.al, (2007). There should be no perfect linear relationship between two or more of the predictors. So the predictor variables should not correlate too highly (Ho, 2006). If there is perfect collinearity between predictors, it becomes impossible to obtain unique estimates of the regression coefficients because there are an infinite number of combinations of coefficients that would work equally well. Perfect collinearity is rare in real-life data, but less than perfect collinearity is virtually unavoidable Field, (2006).

If there is a high degree of correlation between independent variables, we have a problem of what is commonly described as the ‘problem of multicollinearity’ Kothari, 2004; Field, (2006). This research data multi-collinearity assumption is checked by the Pearson Correlation Coefficient and Collinearity Statistics.

A. Assumption Test using Pearson Correlation Coefficient

The first assumption is checking the value of Pearson correlation coefficient among predictor's variables. If Pearson correlation coefficient (r) value among predictors are below < 0.9 , there is no substantial correlation between predictor variables so there is no multi-collinearity problem (Field, 2006). As shown in table 4.12.above, all the Pearson correlation coefficient values (r) between predictors are below 0.90. Therefore, it has satisfied multi-Factors Affecting Procurement Performance: the case of PPPDScollinearity assumption and don't have collinearity problem so that it is able to obtain unique estimates of the regression coefficient.

B. Assumption Test using Collinearity Statistics

The other way of checking the multicollinearity assumption is that by looking SPSS analysis output correlation table of collinearity statistics value of Tolerance and Variance Inflation Factor /VIF (Field, 2006). The Tolerance column value below 0.02 and VIF value above 10 pose a multicollinearity problem. Having this, the Tolerance and VIF value is shown in the regression standardized coefficients table 4.13.below and the analysis indicates that there is the minimum tolerance value of 0.689 which is above 0.02 and the maximum VIF value is 1.452 which is

below 10. Therefore, the predictors don't highly correlate with each other; hence, there is no multicollinearity problem.

Table 4.13 Collinearity statistics value

Model	Collinearity Statistics	
	Tolerance	VIF
Procurement planning	.788	1.269
Staff Competency	.844	1.185
Procurement procedure	.689	1.452
Utilization of ICT	.732	1.366

Source: Survey Result (2017)

4.9.4 Auto-correlation Assumption /Durbin-Watson test/

It is the assumption of independent error tenable or reasonable test. Durbin-Watson used to test for serial correlation between errors. The test statistic can vary between 0 and 4, with a value of 2 meaning the residuals are uncorrelated Field, (2006). A value greater than 2 indicates a negative correlation between adjacent residuals, whereas a value below 2 indicates a positive correlation. Similarly, Ott and Longnecker (2001) defines when there is no serial correlation, the expected value of the Durbin-Watson test statistic d is approximately 2.0; positive serial correlation makes $d < 2.0$ and negative serial correlation makes $d > 2.0$. Although, values of d less than approximately 1.5 (or greater than approximately 2.5) lead one to suspect positive (or negative) serial correlation. If serial correlation is suspected, then the proposed multiple regression models are inappropriate and some alternative must be sought.

Referring this and the model summary table 4.13; the Durbin-Watson value of this research is 1.924. Therefore, the auto-correlation assumption has almost certainly met, since it falls between 1.5 and 2.5. Furthermore, the correlation relation between the variables also is positive correlation since Durbin-Watson value below 2.0 Ott and Longnecker, (2001).

4.10 Interpretation of Model Summary

Model summary table 4.14.describes the overall model whether the model is successful in predicting dependent variables. It gives a value of R square, which measures how much of the variability in the outcome is accounted for the predictors. Under this section, the researcher

explains coefficient of determination, model generalization, model change statistics and auto-correlation assumption of each dependent variables and predictor variables.

4.11. Regression Analysis

Regression standardized coefficients can take on any value between 0 and 1, and it measures the proportion of the variation in a dependent variable that can be explained statistically by the independent variable(s) (Saunders et al., 2012). R square tells us how much of the variance in dependent variable is accounted for by the regression model from our sample, the adjusted value tells us how much variance in dependent variable would be accounted for if the model had been derived from the population from which the sample was taken (Field, 2006). Regression coefficients (R) and R Square of the research are discussed below:

Table 4.14 Model Summary Table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.927 ^a	.859	.853	.25297	1.924

- a. Predictors (in Dependent Variable): (Constant), Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT
- b. Dependent Variable: Procurement performance Indicators

In the above table 4.14, multiple correlation coefficient R of 0.927 indicates that the correlation among the independent and dependent variables is a strong positive relationship; as a result working on those selected factors have positive impact on procurement performance of the PPPDS. The coefficient of determination, R square is interpreted as 85.9 % of the variation in the dependent variable procurement performance is explained by the independent variables (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) and the remaining percent (14.1%) is explained by other dimensions.

4.12 Model Generalization

Generalization is a critical additional step and if we find that our model is not generalizable, and then we must restrict any conclusions based on the model to the sample used Field, (2006).

The adjusted R square gives some idea of how well the model generalizes and ideally it would like its value to be the same or close to, the value of R square. In addition, the adjusted value tells us how much variance in dependent variable would be accounted for if the model had been derived from the population from which the sample was taken.

The model generalization value is calculated by the difference between R square and adjusted R square Field, (2006). As a result model generalization summary of procurement performance is calculated as the difference between adjusted R square and R square. Referring table 4.14 above, value of adjusted R square and R square is, respectively. Hence the difference between R square and adjusted R square is give the shrinkage value $0.853-0.859 = 0.006$, about 0.6%. This shrinkage means that if the model was derived from the population rather than a sample, it would account for approximately 0.6 % less variance in the outcome. Therefore, we can conclude that if this model is applied on the total population, only 0.6 % of variance occurs on the result.

4.12.1 Multiple Regression Analysis

Regression analysis is a statistical method to deal with the formulation of mathematical model depicting relationship amongst variables which can be used for the purpose of prediction of the value of dependent variable, given the value of the independent variable(s) (Kothari, 2004). Multiple regression analysis is an analysis of association in which the effects of two or more independent variables on a single, interval-scaled dependent variable are investigated simultaneously (William and Barry, 2010).

There are three major types of multiple regression techniques namely standard multiple regression, hierarchical regression, and statistical (stepwise) regression (Ho, 2006). This study was conducted using standard multiple regression method that all the study's independent variables are entered into the regression equation at once. According to William and Barry (2010), no cutoff values for the model R square value to accept or reject the regression model; therefore, the regression analysis results are interpreted and regression models are developed to all dependent variables.

In this study, multiple regression analysis was conducted to test the effect of independent variables or procurement factors (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) on the dependent variables or supply chain performance. The reason for using this multiple regression analysis was to examine the direct effect of factors that affect procurement performance in PPPDS.

4.12.2 Analysis of Variance /ANOVA/ Test

ANOVA tests indicate that whether the model is significantly better at predicting the outcome than using the mean as a "best guess" (Field, 2006). ANOVA model is more likely to be significant, indicating that at least one group mean is different from another group mean.

ANOVA is the appropriate statistical technique to examine the effect of a less-than interval independent variable on an at-least interval dependent variable. If the F test result is not significant, the model should be dismissed and there is no need to proceed to further steps (William and Barry, 2010).

On the other hand, regarding to ANOVA test Saunders et al., (2012) discussed that a very low significance value (usually less than 0.05) means that your coefficient is unlikely to have occurred by chance alone. A value greater than 0.05 means you can conclude that your coefficient of multiple determinations could have occurred by chance alone. Therefore, the ANOVA table and test result is presented and discussed below.

Table 4.15 ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.989	4	8.997	14.595	.000 ^b
	Residual	5.887	92	.064		
	Total	41.876	96			

a. Dependent Variable: Procurement performance

b. Predictors: (Constant), Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT

The ANOVA test result of procurement performance is indicated on above table 4.15, it is noticed that F value 14.595 is significant at $P < 0.001$ levels. Therefore, from the result, it can be concluded that with 85.9% of the variance (R square) in procurement performance is significant and the model appropriately measure the dependent variables. Furthermore, the significant value P is very low or less than 0.01 means that the coefficient value is unlikely to have occurred by chance alone.

4.12.3 Regression Coefficients or Model

Standardized regression coefficient (Beta) is the estimated coefficient indicating the strength of relationship between an independent variable and dependent variable expressed on a standardized scale where higher absolute values indicate stronger relationships (range is from -1 to 1) William and Barry, (2010).

Table 4.16 Regression Standardized Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.361	.113		-3.205	.002
	PP	.302	.037	.357	8.102	.000
	SC	.269	.036	.322	7.563	.000
	PPR	.284	.041	.329	6.983	.000
	ICT	.261	.038	.316	6.921	.000

a. Dependent Variable: Procurement Performance

Based on multiple linear regression analysis, the above table 4.16, Beta weight reveals that the impacts of each Procurement planning, Staff Competency, Procurement procedure and Utilization of ICT on procurement performance are 0.357, 0.322, 0.329 and 0.316 respectively. This informs the predicted change or any improvement in the dependent variable for every unit increase in the predictor, while other variables being held constant.

By examining the standardized regression coefficient (β) for each of the predictor variables, the result found that Procurement planning ($\beta = 0.357$, $p < 0.05$), Staff Competency $\beta = 0.322$, $p < 0.05$), Procurement procedure ($\beta = 0.329$, $p < 0.05$) and Utilization of ICT ($\beta = 0.316$, $p < 0.05$) show significant positive relationship with procurement performance.

The multiple regression equation (Ho, 2006):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

Where: Y = dependent variable

β_0 = constant

β_n = Unstandardized regression coefficient

X = Value of the predicted coefficient

$$Y (\text{PRPR}) = \beta_0 + (\beta_1) \text{PP} + (\beta_2) \text{SC} + (\beta_3) \text{PPR} + (\beta_4) \text{ICT}$$

Where: PP=0.357, SC=0.322, PPR=0.329 and ICT=0.316

PRPR = Procurement Performance

PP = Procurement Planning

SC=Staff Competency

PPR = Procurement Procedure

ICT = Utilization of ICT

$$Y (\text{PRPR}) = -.361 + 0.357 \text{ PP} + 0.322 \text{ SC} + 0.329 \text{ PPR} + 0.316 \text{ ICT}$$

By examining the unstandardized regression coefficient (β) for each of the predictor variables, the result found that procurement planning ($\beta = 0.357, p < 0.05$), staff qualification ($\beta = 0.322, p < 0.05$), procurement procedures ($\beta = 0.329, p < 0.05$) and utilization of ICT ($\beta = 0.316, p < 0.05$) show significant positive relationship with procurement performance. So, there is a positive relationship between the predictors (Procurement planning, staff competency, procurement procedures and utilization of ICT) and outcome (procurement performance) since the value of beta coefficient is positive.

4.13 Hypothesis Test

The research used the following working hypothesis to be tested in the analysis:

H1o: The Procurement factors in general don't affect the Procurement performance of PPDS;

H1a: The Procurement factors in general affect the Procurement performance of PPDS;

H2o: The Procurement planning doesn't affect the Procurement performance of PPDS;

H2a: The Procurement planning affects the Procurement performance of PPDS;

H3o: The staff competency doesn't affect the Procurement performance of PPDS;

H3a: The staff competency affects the Procurement performance of PPDS;

H4o: The Procurement procedures don't affect the Procurement performance of PPDS;

H4a: The Procurement procedures affect the Procurement performance of PPDS;

H5o: Utilization of ICT doesn't affect the Procurement performance of PPDS;

H5a: Utilization of ICT affects the Procurement performance of PPDS;

According to Weiers (2008), if p value is less than the specific level of significance (α), reject the null hypothesis; otherwise, do not reject the null hypothesis.

The hypothesis result of procurement factors which are shown above in table 4.15 ANOVA Table and 4.16 regression standardized coefficients, for all alternative hypothesis p value is less than 0.05, and this means reject the null hypothesis. Therefore, the regression analysis agreed to

accept alternative hypothesis, as a result all alternative hypotheses are accepted. Hence, procurement factors have positive correlation with procurement performance namely Procurement planning, staff competency, procurement procedures and utilization of ICT.

The researcher used Pearson's correlation coefficient to test the hypotheses. The result of the Pearson's correlation presented in table 4.12, interpreted by using the Pearson's correlation coefficient relationship between the predictor and outcome variable. Correlation is an effect size and we can verbally describe the strength of the correlation using the following guide for the absolute value from 0 to 0.19 is very weak relationship, from 0.20 to 0.39 is weak, 0.4 to 0.59 moderate, 0.60 to 0.79 strong and 0.80 to 1.0 shows very strong relationship while the positive and negative sign is tells us the direction of their relationship (Statstutor.ac.uk, 2015).

Table 4.17 Hypothesis test result

Hypothesis No.	Hypothesis	P value	Relationship Direction	Result
H1a	The procurement factors in general affect the procurement performance of PPPDS;	0.000	Positive	Reject H10
H2a	Procurement planning factors in general affect the procurement performance of PPPDS;	0.000	Positive	Reject H10
H3a	Staff competency affects the procurement performance of PPPDS;	0.000	Positive	Reject H30
H4a	Procurement procedure has effect on the procurement performance of PPPDS;	0.000	Positive	Reject H40
H5a	ICT affects the procurement performance of PPPDS;	0.000	Positive	Reject H50

The above Pearson correlation coefficient table 4.12.shows that the correlation relationship between predictor variables (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) and dependent variables (Procurement Performance).

Accordingly, procurement performance has strong and positive correlation with all procurement factors at Pearson correlation (r) value of 0.681, 0.578, 0.703 and 0.631 respectively as

Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT with significant value of $P < 0.01$.

1. H1a- The procurement factors in general affect the procurement performance of PPPDS;

In the table 4.14, multiple correlation coefficients R of 0.927 indicates that the correlation among the independent and dependent variables is a strong positive relationship; as a result working on those selected factors have positive impact on procurement performance of the PPPDS. The coefficient of determination, R square is interpreted as 85.9 % of the variation in the dependent variable procurement performance is explained by the independent variables (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) at $p = 0$ which is less than 0.001 and the relationship is positive, therefore, we accept the hypothesis H1a; the procurement factors in general affect the procurement performance of PPPDS. The null hypothesis H10, therefore, will be rejected.

2. H2a- The procurement planning in general affects the procurement performance of PPPDS;

The Pearson correlation coefficient between procurement planning and the procurement performance is 0.681 at $p = 0$ which is less than 0.001 and the relationship is positive, therefore, we accept the hypothesis H1a; the procurement planning in general affects the procurement performance of PPPDS. The null hypothesis H20, therefore, will be rejected.

3. H3a- Staff competency has an effect on the procurement performance of PPPDS;

The Pearson correlation coefficient between Staff competency and the procurement performance is 0.578 at $p = 0$ which is less than 0.001 and the relationship is positive and strong, therefore, we accept the hypothesis. The null hypothesis H30, Staff competency has no an effect on the procurement performance of PPPDS, therefore, will be rejected.

4. H4a- Procurement procedure has an effect on the Procurement performance of PPPDS;

The Pearson correlation coefficient between Procurement procedure and the procurement performance is 0.703 at $p = 0$ which is less than 0.001 and the relationship is positive and strong, therefore, we accept the hypothesis. The null hypothesis H40, Procurement performance has no an effect on the procurement performance of PPPDS, therefore, will be rejected.

5. H5a- Utilization of ICT has an effect on the Procurement performance of PPPDS;

The Pearson correlation coefficient between ICT usage and the procurement performance is 0.631 at $p = 0$ which is less than 0.001 and the relationship is positive and strong, therefore, we accept the hypothesis. The null hypothesis H50, Utilization of ICT has no an effect on the procurement performance of PPPDS, therefore, will be rejected.

This is similarly that of (Karanu and Njeru, 2014); (Mburu, 2014) and (Ayoti, 2012) meaning the existence of ICT usage in procurement increases the performance of procurement.

To summarize, the entire null hypotheses are automatically rejected and all alternative hypotheses are accepted. This shows the company has to work in these factors so that it can increase the performance of procurement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Introduction

In this chapter the summary of the findings are provided, and conclusions are drawn in light of the objectives of the study. The researcher then presents recommendations for both the research and for improvement by the organization under study. Finally, it highlights suggestion for further study by other researchers in the future.

5.2. Summary of Major Findings

The research aims at examine of factors affecting public procurement performance in Ethiopia: the case Public Procurement and Property Disposal Services. Accordingly to meet this objective, the researcher has developed a questionnaire from the relevant literature to collect and analyze the opinions of the study sample. The following findings are obtained;

5.2.1 Procurement Planning

From the findings, majority of respondents indicated that procurement plans in the department impacted positively on procurement performance.

From Pearson's correlation coefficient, there is found to be a positive correlation and significantly related between procurement performance and procurement planning with a correlation figure of 0.681, $P < 0.01$.

From regression model, a unit increase in procurement planning will lead to a 0.357 increases in procurement performance at PPPDS. This implies that planning accounts for 35.7% of variations in procurement performance. This study found out the goods/services or works not being procured on time because the work programs affected by procurement planning i.e. incomplete procurement plan and urgent/unplanned procurement requisitions are influence the procurement performance of PPPDS. Basheka, (2008) confirms this that planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today. The results further revealed that the departments prepared annual procurement plans and that the procurement plans were prepared and the goals set participatory. Procurement plans therefore influence procurement performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting and

planning and therefore with adequate provision of funds due to procurement plans, performance is assured.

5.2.2 Staff Competency

From the findings, majority of respondents indicated that Staff Competency in the department impacted positively on procurement performance.

From Pearson's correlation coefficient, there is found to be a positive correlation and significantly related between procurement performance and staff competency with a correlation figure of 0.578, $P < 0.01$.

From regression model, a unit increase in staff competency will lead to a 0.322 increases in procurement performance at PPPDS. This implies that staff competency accounts for 32.2% of variations in procurement performance. Procurement staff competencies affect procurement performance of PPPDS in the sense that inexperienced staff carry out duties without professional manner and it reduce wastage of resources. The respondents indicated that effective and efficient procurement process can only be achieved by proper planning by competent staff else there would be flaws in the process. Competent staff would ensure that items services are procured as and when the need is expected. Lysons and Gillingham, (2003) in their findings concludes that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

5.2.3 Procurement Procedures

From the findings, majority of respondents indicated that procurement procedures have a positive impact on procurement performance.

From Pearson's correlation coefficient, it was clear that there is a positive correlation and significantly related between the procurement performance and procurement procedure as shown by a correlation figure of 0.703, $P < 0.01$.

From regression model, a unit increase in procurement procedures will lead to a 0.329 increase in procurement performance at PPPDS. This implies that procurement procedures accounts for 32.9% of variations in procurement performance. The results have shown that contract

management and tender evaluation not conducted according to the bidding and contract document terms and conditions in technical document evaluation has significant on procurement performance at PPPDS. The study found out also there was poor contract management at the PPPDS characterized by inaccurate tender evaluation and lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without involvement of procurement function. This is also confirmed by Thai (2001), Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, and the potential for manipulation of contract public expenditure is slow, ineffective, expensive and often corrupt.

5.2.4 Utilization of Information Communication Technology

The study found out majority of respondents agreed that utilization of ICT impacted positively on procurement performance.

From Pearson's correlation coefficient, there is a positive correlation and significantly related between procurement performance and utilization of ICT with Spearman's correlation coefficient of $r_s = 0.631$, $P < 0.01$.

From regression model, a unit increase in utilization of ICT will lead to a 0.316 increase in procurement performance at PPPDS. This implies that utilization of ICT accounts for 31.6% of variations in procurement performance. The results as shown that lack of advanced technology usage i.e. e-procurement technology in procurement process is one of the greatest factor of procurement performance in the PPPDS

5.3 Conclusion

This study has provided empirical justification for a framework that identifies four constructs of procurement Performance and describes the relationship among these constructs and procurement performance within the context of Ethiopia in PPPDS. It concludes that there is a relationship between the procurement factors (independent variables) and procurement performance (dependent variable); the correlation relation shows that they have a strong and positive correlation with all procurement factors.

According to the five R's of purchasing (at the right time, from the right source, at the right price, at the right quality) procurement unit of PPPDS is working under poor performance and providing inefficient services for end users and average terms of purchasing right quantity.

The independent variables studied significantly and positively affect the procurement performance of PPPDS. In general, the study concludes that procurement planning, staff qualification, procurement procedures and utilization of ICT positively affect procurement performance at PPPDS. The most important factor was found to be procurement planning followed by procurement procedures as pointed out by most of the respondents.

5.4 Recommendations

Based on finding of the study, conclusion drawn in line with the study objectives, the following points are suggested by the researcher in order to improve procurement performance of Public Procurement and Property Disposal Service.

- The company, PPPDS, has to work on the four purchasing factors in order to improve its procurement performance in particular and organizational performance in general in order to five rights of purchasing. The company should continue improving reduction in quality complaints, by preparing clear specification, evaluating bidders according to the bid document set criteria, putting in place competence inspection team, installing effective inventory management and consistent product quality and conducting market assessment to achieve right price. In order to address the above factors identified as far as quality management was concern, the company should use effective procurement automation that will make it achieve on time delivery.
- The researcher also recommends that procurement plans shall prepare on time with complete information by end users. In addition, federal organizations shall also minimized urgent/unplanned requisitions. Federal organizations should strengthen and ensure successful implementation of their organizational plan and to achieve their organizational goals and objectives. Procurement plan must be fully integrated with the strategic plan and budget of the public administration. Procurement plan is specifically designed to assure that funds are available for the procurement, that the proper method of

procurement is undertaken, and that the type of contract chosen will be suitable for the particular procurement of goods, works, or services.

- The researcher recommends that within administrative procedures evaluate the entire procurement procedures in order to identify service delivery point of breakdown with a view to re-engineer the procurement process. The contract management procedures should be improved to increase the performance level of procurement process by reducing delays in finance process and delivery of goods/services by improving contract management procedures. The procurement process should be administered by qualified and experienced procurement professionals.
- The company should enhance its employee's competence as a way of achieving service delivery as a means of improving procurement performance. This can be achieved by creating awareness through training on the following aspects of procurement; state of the order up to date and also those employees had superior knowledge in entire procurement process. For the success of the contracts under execution, the management of PPPDS should ensure that proper mechanisms for procurement performance such as adequate monitoring and evaluation of procurement performance are put in place with the input of procurement personnel and the user department with progress reports that helps to take necessary action.
- The study recommends that the company should enhance the utilization of IT in the entire business process which is inter-linked to procurement. Enterprise Resource Planning System that would integrate e-procurement into the entire business operations of the organization which would create benefits to all the clients very useful to communicate easily with the user department, procurement unit, and suppliers, require procurement information output for decision making, this in turn will improve transaction time and accuracy.

5.5 Suggestion for Further Study

This research is conducted only on federal Public Procurement and Property Disposal Service .therefore, the researcher recommends that other researchers include regional procurement service provider offices of Ethiopia.

This study limits itself to four factors, which explain about 85.9% of the factors affecting the Public Procurement and Property Disposal Service. That means 14.1% is explained by other factors which are not included or studied by this research. The study was limited to four attributes of procurement performance and few variables of procurement performance measures. Further research is recommended on factors such as organizational structure, resource allocation and unethical practice.

REFERENCES

- Adams, J, Khan, Hafiz T.A., Rae (2007). *Research Methods for Graduate Business and Social Science Students*. New Delhi: SAGE. Available from: www.bookzz.org. [Dec 03 2016].
- Akech, J. M. (2005). “*Development Partners and Governance of Public Procurement in Kenya: Enhancing Democracy in the Administration of Aid*”. International law and politics, vol. 37,no.4,pp.829-868.Availablefrom:http://www.iilj.org/gal/documents/AkechPaper_000.pdf [Dec 01 2016].
- Anteneh, G. (2015). “*Assessment on Procurement Planning and Implementation: Effectiveness in Ethiopia: The Case of Ministry of Urban Development, Housing and Construction*”. Available from: <http://etd.aau.edu.et/handle/123456789/6869>. [Nov 23 2016].
- Arrow smith, S. (2010). *Public procurement: Basic concepts and the coverage of procurement rules, in Public procurement relations: an introduction*. EU Asia Inter University Network.
- Artley, W., & Stroh, S. (2001, September).*The Performance-Based Management Handbook*, Volume II. Retrieved Dec 09 2016, from Oak Ridge Institute for science and education website: <http://www.ornl.gov/pbm/pbmhandbook/Volume%202.pdf>
- Baily, P., Farmer, D., Jessop, D. & Jones, D. (2005).*Purchasing Principles and Management*. (9th ed.). London: Prentice Hall.
- Basheka, B.C. (2008). “Procurement Planning and accountability of local Government procurement systems in developing countries: Evidence from Uganda.” *Journal of Public Procurement*, Vol. 8 (3) pp 379-406.
- Basheka, B. C. & Bisangabasaija, E. (2010). Determinants of unethical public procurement in local government systems of Uganda: a case study. *Int. J. Procurement Management*, 3(1), 91–104.

- Batenburg, R., & Versendaal, J. (2006, January). *Alignment Matters - Improving business functions using the procurement alignment framework*. Retrieved Dec 05 2016, from Archive library Utrecht University web site: http://igitur-archive.library.uu.nl/math/2007-1219-214623/batenburg_06_alignment_matters.pdf
- Bogdan, R.C., & Biklen, S.K., (1998). *Qualitative Research for Education: An Introduction to Theory and Practice*, Alley and Bacon.
- Bolton, P. (2006). Government procurement as a policy tool in South Africa, *Journal of Public Procurement*, Vol. 6 No.3, pp.193-217.
- Boniface Ikumu Chimwani, D. A. (2014). Factors influencing procurement performance in the Kenyan public sector. *International Journal of Innovation and Applied studies*.
- Bovis, C.H. (2007), *European Union Public Procurement Law*, Elgar European Law Series, Edward Elgar Publishing.
- Burt, David N., Dubler, Donald W., and Starling and Stephen L., (2003), *World Class Supply Management*, Seventh Edition. New Delhi. Tata McGraw-Hill Publishing Company Limited.
- Cane, P. 2004. *Administrative law*. 4th edition. London: Oxford University Press.
- Chimwani, B. I., Iravo, D. M., & Tirimba, O. I. (2014). „Factors Influencing Procurement Performance in the Kenya Public Sector“. *International Journal of Innovation and Applied Studies*, Vol. 9 No. 4, pp.1626-1650. Available from: [http://www.issr-journals.org/links/papers.php?journal=ijias&application=pdf&articl.\[Dec 02 2016\]](http://www.issr-journals.org/links/papers.php?journal=ijias&application=pdf&articl.[Dec 02 2016]).
- Daugherty, P. J., Myers, M. B., & Autry, C. W. (1999). "Automatic replenishment programs: An empirical examination". *Journal of Business Logistics*, Vol. 20, No. 2, pp. 63-82.
- Dobler, Burt, (1998), *Purchasing and Supplies Management: Text and Cases*, Tata McGraw Hill, Delhi, India.
- Ethiopian Federal Government Procurement and Property Administration *Proclamation No 649/2009*.
- Evenette, Simon J. & Hoekman, Bernard (2005). "International Cooperation and the Reform of Public Procurement". "World Bank Policy Research Working paper, No. 3720.
- EU A Six Inter University Network (2010), *Public Procurement Regulation: An Introduction*, <http://www.notingham.university.co.uk> [accessed date November 25, 2016].

- Eyaa, S. & Oluka, P.N. (2011). Explaining noncompliance in public procurement in Uganda. *International Journal of Business and Social Science*. 2(11), June: 35–44.
- Field A (2005). *Discovering statistics using SPSS*. (2nd Ed). New Delhi: Sage Publications
- Field, A. (2000). *Discovering Statistics using SPSS for Windows*. (2nd Edition). London. Thousand Oaks
- Field, A. (2006). *Reliability Analysis. Introduction to descriptive statistic* (2nd Edition). London. Thousand Oaks
- Getahun, A. (2015, June 1). *Assessment on Procurment Planning and Implementation Effectiveness in Ethiopia*. The case of Ministry of Urban Development, Housing and Construction Addis Ababa, Ethiopia.
- Gizachew, A. (2012). "Efficiency, Accountability and Transparency in Public Procurement: The Level of Compliance in Africa (Ethiopian Case)", PART VI, pp.1267-1293. Available from: <http://www.ippa.org/IPPC5/Proceedings/Part6/PAPER6-1.pdf>. [Dec 03 2016].
- Goetsch, D. L. & Davis, S. B. (2006). *Quality Management: Introduction to TQM for Production, Processing, and Services*. New Jersey: Prentice-Hall.
- Ho, R. (2006). *Handbook of Univariate and Multivariate Data Analysis and Interpretation with Spss*. USA: Chapman & Hall/CRC.
- Kiage, J. O. (2013). Factors affecting procurement performance. *Intenational Journal of Business and Commerce* .
- Kippra, (2006). *Journal of International Journal of Research in Business Management* Vol. 3, Issue 11, Nov 2015, 29-42
- Kombo, K., & Tromp, A. (2011). *Proposal and Thesis Writing, Pauline''s*, Nairobi. Available from: <http://scholar.google.com/citations?user=odBfLH4AAAAJ&hl=en>. [Nov 25 2016].
- Kothari, C. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). London, Pitman Publishers.
- Lewis, M.A. and Roehrich, J.K. (2009), Contracts, Relationships and Integration: Towards a Model of the Procurement of Complex Performance, *International Journal of Procurement Management*.
- Leenders, R. M., & Fearon, E. H. (2002). *Purchasing and Supply Management*, (12th Ed.). Chicago: McGraw-Hill Companies.

- Malhotra, N. K. and Birks, D.F. (2006). *Marketing Research: An Applied Approach*. (Updated 2nd European ed.). England: Pearson Education Limited,
- Mamiro, R. G. (2010). *Value for Money, the Limping Pillar in Public Procurement*. Tanzania Procurement Journal , 4 -5.
- Mangan, J., Lalwani, C. and Butcher, T. 2008, *Global Logistics and Supply Chain Management*, John Wiley and Sons, New Jersey.
- Maurer, R. (2004), *One Small Step Can Change Your Life; The Kaizen Way*, Workman.
- Michael, w., & Juanita, O. (2006). *Curbing Corruption in Public Procurement*. Available from; http://www.transparency-korea.org/wp-content/uploads/2014/12/2014_AntiCorrup. [Dec 02 2016].
- MoFED, GoE (2010).” *Federal Public Procurement Directive 2010*.” Addis Ababa.[Online]. Available at www.ppa.gov.et
- Mburu, S. Njeru, A. (2014). Factors Affecting Procurement Performance in the Milk Processing Firms in Kiambu County. *International Journal of Science and Research*. ISSN (Online): 2319-7064
- Mlinga, R. (2009) Promoting Integrity in Public Procurement. *Tanzania Procurement Journal*, **II**, 13-39.
- Mugenda, O. & Mugenda, A. (2003). *Research Methods: Quantitative & Qualitative Approaches*. Nairobi, Acts Press.
- Neuman W.L. (2007). *Basics of Social Research: Qualitative and Quantitative Approaches*, 2nd ed. Boston: Pearson Education Inc.,
- OECD, (2007). *Integrity in Public Procurement Good Practice from A to Z*. Available from: <http://www.oecd.org/development/effectiveness/38588964.pdf>. [Dec 12 2016].
- OECD-DAC (2006), *Mainstreaming the Procurement Function into the Public Expenditure Policy and Effectiveness Dialogue* (OECD/DAC). World Bank Roundtable, Paris, 22–23 January. Available at www.oecd.org.

- Organization for Economic Cooperation and Development (OECD), (2006).“*Methodology for Assessment of National Procurement Systems.*”*Development Co-operation Directorate* (DCD-DAC),Version 4.
- Otieno (2004). *Journal of International Journal of Research in Business Management* Vol. 3, Issue 11, Nov 2015, 29-42.
- Olivia McDonald, (27/11/2010), *Buying Power Aid, Governance and Public Procurement* www.eurodad.org/uploadedFiles/Buying%20Power.pdf,
- Patrick, B. (2003). *Social Research Theory, Methods and Techniques*. Great Britain: SAGE Publications Ltd.
- Patton, M.Q. (2002) *Qualitative Research and Evaluation Methods* (3rd edn), Thousand Oaks, CA, Sage.
- PPA (2011). *The Federal Democratic Republic of Ethiopia, Federal Government Public Procurement manual 2011*. Appendix 9 (9.1.1-9.1.5).
- PPA (2014). Public Procurement and Property Administration Agency *2014 Annual Report*, 12 May 2014.
- PPPDS Annual Report. (2007 and 2008). *Public Procurement and Property Disposal Service Annual Report 2007 and 2008*. Ethiopia.
- Samuel, M. K., & Njeru, A. (2014).”Factors Affecting Procurement Performance in the Milk Processing Firms in Kiambu County”. *International Journal of Science and Research (IJSR)*, vol. 3, no. 1.
- Saunders, M. (1997).*Strategic Purchasing & Supply Chain Management*, (7th Ed.). Essex: Pearson Education Ltd.
- Saunders, M, Lewis, P. and Thornhill, A. (2007).*Research Methods for Business Students*. (4thed.). England: Pearson Education Limited.
- Sekaran, U., 2005, *Research Methods for Business*, a Skill Building Approach (4ed.).
- Shaw, F.N. (2010), *The Power to Procure: A Look inside the City of Austin Procurement Program*, Applied Research Projects, Texas State University.

- Tan, K.S., Chong, S.C., Uchenna, C.E. (2009). "Factors influencing the adoption of internet based ICTs: evidence from Malaysian SMEs", *International Journal of Management and Enterprise Development*.
- Tesfahun, Y. (2011). "Public Procurement Reforms in Ethiopia: Policy and Institutional Challenges and prospective"-Addis Ababa University (p.1267), from etd.aau.edu.et/dspace/bitstream.
- Thai, K.V. (2001). "Public procurement re-examined", *Journal of Public Procurement*, Vol. 1 No.1, pp.9-50.
- Thai, K.V., Araujo, A., Carter, R.Y. and Calendar G. (2005), *Challenges in Public Procurement*, Available at www.unpcdc.org. [Accessed 5 December 2016].
- Thai, K. V. (2009). "International public procurement: Concepts and Practices. "International Handbook of Public Procurement, PP1-26
- Tony O'Brien (2011). *European Emergency Number Association (EENA) Operations Document—Managing the Tendering Process*. Available from: http://www.eena.org/ressource/static/files/2012_10_16_1-1-4_terminology_v1-2.pdf. [Dec 11 2016].
- UNDOC (2013). *Guidebook on Anti-Corruption in Public Procurement and the Management of Public Finances*. New York, USA: United Nations
- Van Weele, A. J. (2006). *Purchasing & Supply Chain Management: Analysis, Strategy, Planning and Practice* (4th ed.). Australia: Thomson.
- Vanderstoep, S.W. and Johnston, D.D. (2009). *Research Methods for Everyday Life, Blending Qualitative and Quantitative Approaches*. United States of America: John Wiley & Sons, Inc,
- Wanyonyi, S. c. (2015). "Factors Affecting Performance of Procurement Function among Public Technical Training Institutions in Kisumu Country, Kenya". *International Journal of Economics, Commerce and Management United Kingdom*, Vol. III, pp.325. Available from: <http://ijecm.co.uk/wp-content/uploads/2015/05/3520.pdf>. [October 10 2016].
- Waters, D. (2004). *Introduction to Supply Chain Management*, (2rd Edition), Palgrave Macmillan, London.

Wee, H. (2002). "*Corporate ethics: right makes might*", *Business Week*, (quoting Stuart Gilman on Enron), No.11 April.

William G. Zikmund, Barry J. Babin (2010). *Exploring Marketing Research*, 10th edn. Canada: Nelson Education Ltd. Available from: Factors Influencing the Effectiveness of Tendering Processes in Public Sector, 2016 Page xii https://www.cengagebrain.co.uk/content/zikmund88614_0324788614_02.01_cha. [Dec 23 2016].

World Bank (1995a). *Guidelines: Procurement* under IBRD Loans and IDA Credits, World Bank, Washington, D.C.

ANNEX: A
Questionnaires
Addis Ababa University School of Commerce
Department of Logistics and Supply Chain Management

Dear respondent,

My name is Abebe Aberu and I am carrying out an academic research on the factors affecting public procurement performance in Ethiopia: the case of Public Procurement and Property Disposal Service.

The validation of the research objectives depends on your genuine and timely response by completing the attached demographic and procurement related questionnaires. Please be assured that the information acquired shall be used purely for academic purpose only and will be kept strictly confidential. Please indicate your level of agreement or disagreement by using (√ or x) mark on the appropriate box given corresponding to each statement, Please state your opinion on the space provided for open question and no need of writing your name.

Your co-operation and assistance will be highly appreciated. If you need any clarification or information: **Mob.0910-41-22-41** **E-mail. abebeaberu@yahoo.com**

Part One: Demographic data

1. Educational Status:

- Certificate Diploma Advanced Diploma First Degree
 Second Degree

2. Relevant work experience:

- Less than 2 years 2-4 years 4-6 years above 6 years

3. Please indicate your designation/ position

- Head of /department/unit/division/directorate Senior expert expert

Other Please specify, if other _____

Part Two: Procurement planning

4. What is your level of agreement with the following statements that relate to the effect of **Procurement planning** of other public bodies on procurement performance in PPPDS?

S. N.	Procurement planning related questions	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
4.1	In PPPDS end users adequately plan their budget for the procurement items that are going to be procured					
4.2	End users are raised their procurement need on time					
4.3	Public sector provides clear specification for the procurement items that are going to be procured					
4.4	End users requisitions are planned and programmed					
4.5	In PPPDS procurement plan prepared through involvement and participating of all end users					

If you want to add, please specify.....

Part Three: Staff Competency

5. What is your level of agreement with the following statements that relate to the effect of **Staff Competency** on procurement performance in PPPDS?

S. N.	Staff Competency related questions	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
5.1	In PPPDS the procurement activity is conducted by competent procurement staffs					
5.2	Procurement staffs have ability to apply public procurement principles and evaluate bidding document					
5.3	Procurement staffs have the ability to negotiate with users and suppliers					
5.4	PPPDS procurement staffs have the necessary skills and competence to handle complex and strategic procurement items					
5.5	Procurement staffs have the ability to understand users need market environment and suppliers capacity					

If you want to add, please specify.....

Part Four: procurement procedures

6. To what extent do you agree **procurement procedures** influence procurement performance in PPPDS?

S. N.	procurement procedures related questions	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
6.1	Tender evaluation conducted according to predetermined set criteria in the bid document					
6.2	Contract management is conducted according to the bidding and contract document terms and conditions					
6.3	In PPPDS procured items are tested and inspected accordingly at the time of delivery					
6.4	In PPPDS bidders complaint is handled without bureaucratic system					
6.5	In PPPDS procurement performance is adequately monitor/evaluate					

If you want to add, please specify.....

Part Five: Information Communication Technology utilization

7. To what extent do you agree **Information Communication Technology (ICT) utilization** influence procurement performance in PPPDS?

S. N.	Information Communication Technology related questions	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
7.1	Information Communication Technology has brought satisfaction to all stakeholders in PPPDS					
7.2	Information Communication Technology has support to reduced paper work in PPPDS					
7.3	Information Communication Technology has play role to increase quality goods/service delivery performance in PPPDS					
7.4	Information Communication Technology has increased the output of procurement officers in PPPDS					
7.5	Information Communication Technology has speed up the procurement process					

If you want to add, please specify.....

Part Six: procurement performance evaluation related questions

8. How do you rate (evaluate) the PPPDS **procurement performance** based on five rights of Purchasing?

S.N.	<i>Procurement performance Rating with regard to 5 R's</i>	<i>Very poor</i>	<i>Poor</i>	<i>Neither good nor poor</i>	<i>Good</i>	<i>Very good</i>
9.1	With Right Quality					
9.2	At Right Time					
9.3	At Right Price					
9.4	From the Right Source					
9.5	Right Quantity					

Part: Eight

9. How do you rate the following activities their impact on the performance of procurement activities of the PPPDS in the order of their impact.

Ser.,No	Variable which have impact on procurement performance	Rank (1-10)
1	Lack of proper knowledge, skills and capacity staffs	
2	Inadequate linking of demand to the budget	
3	Accountability, fraud and corruption	
4	Inadequate monitoring and evaluation of procurement performance	
5	End users not raised their need on time	
6	Poor implementation of Information communication technology	
7	Shortage of foreign currency	
8	non-compliance with procurement policy and regulations	
9	Lack of clear process and procedure	
10	Client's financial difficulties	

Other (specify) and Please rank

.....

-----**Thanks a lot for your valuable time**-----