



COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE

Factors Affecting the Public Procurement Effectiveness: Evidence from
Oromia National Regional State public sectors, Oromia, Ethiopia

A Thesis Submitted to Department of Accounting and Finance Addis Ababa University in Partial Fulfillment of the Requirements for Degree of Master of Science in Accounting & Finance

By: Alemu Feyisa

Advisor: P. Laxmikantham (PhD)

July, 2021

Addis Ababa, Ethiopia

**FACTORS AFFECTING THE PUBLIC PROCUREMENT
EFFECTIVENESS: EVIDENCE FROM OROMIA NATIONAL
REGIONAL STATE PUBLIC SECTORS, OROMIA, ETHIOPIA**

**A THESIS SUBMITTED TO THE COLLEGE OF BUSINESS AND
ECONOMICS STUDIES OF ADDIS ABABA UNIVERSITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF THE DEGREE OF MASTERS IN ACCOUNTING AND
FINANCE**

BY:

ALEMU FEYISA

UNDER THE GUIDANCE OF

P. LAXMIKANTHAM (PHD)

July,2021

ADDIS ABABA, ETHIOPIA

CERTIFICATE

This is to approve that Thesis entitled. *“Factors Affecting the Public Procurement Effectiveness: evidence from Oromia national regional state public sectors”* submitted to Addis Ababa university college of business and economics for the award of the degree of master of Department of Accounting and Finance and is a record of research work carried out by Mr. **ALEMU FEYISA** under my guidance and supervision.

Therefore, I hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

Adviser’s Name

Date

Signature

P.Laxmikantham (PhD)

DECLARATION

I, Alemu Feyisa, declared that this thesis entitled Factors affecting the public procurement effectiveness (Evidence from Oromia National regional state public sectors), is my original work, prepared under the guidance of P. Laxmikantham (PhD). All resources used in the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution to earn any degree

Researcher Name

Date

Signature

Alemu Feyisa

28/6/2021

Confirmation

This is to certify that the thesis entitles “*Factors Affecting the Public Procurement effectiveness: evidence from Oromia national regional state public sectors*” submitted to Addis Ababa university College of Business and Economics for the award of the Degree of Master of Accounting and Finance and is a record of research work carried out by Mr. **Alemu Feyisa**, under my guidance and supervision.

Therefore, I hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

Submitted by:	Signature	Date
Alemu Feyisa	_____	_____
Name of Student		

Approved by: Name of Advisor		
P. Laxmikantham (PhD)	_____	_____
Name of external examiner		

Azime Adem	_____	_____
Name of internal examiner		
Tekalign Nega	_____	_____

Name of Department head		
_____	_____	_____

ACKNOWLEDGEMENTS

This thesis is a synergistic piece of work of many personalities. Firstly, I owe my deepest gratitude to God for granting me His grace and blessings. Secondly, I sincerely thank the lecturers and the academic staff in the Department of Accounting and Finance in Addis Ababa University. My special thanks goes to my advisor **P.Laxmikantham** (PhD) for his highly valued advice, constant and distinctive guidance, and most of all for his dedication, patience and understanding; it was amazing support.

Finally, I offer my sincere regards to all who supported me in any respect during the writing of this thesis.

Table of Contents

DECLARATION	iv
ACRONYMS (ABBREVIATIONS).....	xi
List of Tables.....	xii
List of Figures	Error! Bookmark not defined.
ABSTRACT	xiv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the Problem	3
1.3. Research Question	5
1.4. Objective of the Study	5
1.4.1. General Objective	5
1.4.2. Specific Objectives	5
1.5. Scope of the Study	6
1.6. Limitation of the study.....	6
1.7. Significance of Study	6
1.8. Organization of the Study Paper.....	7
CHAPTER TWO.....	8
2. LITERATURE REVIEW	8

. 2. Introduction	8
2.1. Concept and Definition	8
2.1.1. Roles of procurement	9
2.1.2. Procurement Performance	10
2.2. Theoretical Review	12
2.2.1. Public Procurement Challenges	14
2.2.2. Determinants of Procurement effectiveness	16
2.2.3. Procurement Planning	16
2.2.4. Staff Competency	16
2.2.5. Procurement Procedures	17
2.2.6. Resource Allocation	18
2.2.7. The Five Key Purchasing Variables	18
2.3. Empirical Review	20
2.3.1. Procurement effectiveness	20
2.3.2. Procurement Practice in Ethiopia	22
2.4. Conceptual Framework	23
2.5. Research Gap	24
CHAPTER THREE	25
3. RESEARCH METHODOLOGY	25
3.1 Description of Study Area	25
3.2 Research Approach	26

3.3. Research Design	26
3.4. Data Type and Source	27
3.5. Methods of Data Collection	27
3.6. Study Population	27
3.7. Sampling Technique and Sample Size	27
3.8. Methods of Data Analysis	29
3.9. Model Specification	29
3.10. Study Variables	32
3.11. Reliability and Validity	34
3.12. Ethical Considerations	35
 CHAPTER FOUR	 36
 DATA ANALYSIS AND DISCUSSION	 36
4.1. Descriptive Statistics and Discussion	36
4.1.1. Background of Respondent	36
4.1.2. Descriptive Measure of Factors that Affect Procurement effectiveness	38
4.1.3. Descriptive Measure of effectiveness of Procurement	46
4.1.4. Overall Mean Score of Factors that Affect Procurement effectiveness	48
4.2. Inferential Analysis	49
4.2.1. Assumption of Ordered Logistic Regression	49
4.2.2. Ordered Logistic Regression Analysis	50
4.3. Discussion	53

4.3.1 Specific Determinants of Procurement effectiveness.....	53
CHAPTER FIVE	55
CONCLUSION AND RECOMMANDATION.....	55
5.1. Conclusion.....	55
5.2. Recommendation	57
5.3. Future Research Direction.....	58
REFERENCE.....	59
ANNEX 1 QUESTIONNAIRE	66

ACRONYMS (ABBREVIATIONS)

EFPPAA	Ethiopian Federal Public Procurement and Property Administration Agency
EOQ	Economic Order Quantity
GDP	Gross Domestic Product
HR	Human Resource
ICT	Information Communication Technology
IMF	International Monetary Fund
LG	Local Government
OECD	Organization for Economic Co-operation and Development
PPA	Public Procurement Appendix
SPSS	Statistical Package for Social Science

List of Tables

page

Table3.2. Summary of Variables Measurement and expected effect with dependent variables	33
Table3.3. Reliability Statistics	35
Table4.1. Respondent background profile	37
Table4.2. Descriptive measure of procurement plan	40
Table 4.3. Descriptive Measure of Procurement Staff Competency	42
Table4.4. Descriptive summary of Procurement procedures.....	45
Table4.5. Descriptive Measure Of Resource Allocation	46
Table 4.6. Descriptive Measure Of Practice Of Procurement	48
Table4.7. grand mean score of independent variable	49
Table4.8. multicollinerity test statistics	50
Table4.9. ordered logistic regression.....	51
Table4.10. ordered logistic regression proportional odds ratios.....	52

List of figures	Page
Fig 2.1: Conceptual Framework.....	24
Figure 3.1. Geographic location of Oromia national regional state.....	27
Figure 4.1. Bar graph display for gender of respondent.....	38

ABSTRACT

Public procurement is one of the main roles to government service delivery, yet constraints affect its performance because procurement is perceived as prone to corruption, waste, misuse & affecting quality and quantity of service resulting in poor performance. The main objective of this study is to deal with factors that affect public procurement effectiveness in Oromia public sectors. To achieve the specific goals of the effect of procurement planning on procurement effectiveness, the effect of procurement staff competency on procurement effectiveness, the effect of procurement procedure on procurement effectiveness, the effect of procurement staff competence on procurement effectiveness, the effect of resource allocation on procurement effectiveness were examined. The researcher used sample from 186 employees in Oromia national regional state public sectors using simple random sampling and primary data was collected through standardized questionnaire. Moreover, explanatory design was employed to identify the main factors that affect procurement effectiveness. The study also employed econometric modeling of ordered logit to demonstrate the magnitude and economic significance of the factors affecting procurement effectiveness. The finding implied that procurement plan was potentially applied in the study area. However, based on the ordered logistic regression and proportion regression results. Three of the independent variables found positive and significant. As a result of ordered logistic regression estimation Procurement staff competence variable found to have a positive and significant relationship with dependent variable and Procurement procedure variable found significant positive impact on the dependent variable. Similar to this, resource allocation becomes significant and positive. Based on the results of the study, researcher forwarded the following recommendation: procurement committee should have to assign testing and inspecting team in Public Procurement and Property Disposal Service procured items accordingly at the time of delivery and is advisable that giving Training in order to boost the skills and competency levels required by staffs participated in the procurement process and to become effective and efficient.

Keywords: *Procurement effectiveness, procurement planning, Procurement procedure, staff competency and resource allocation.*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Procurement refers to the acquisition of goods, services, abilities and knowledge required by businesses, from the right source, the right quality, and quantity, at the right time and at the right price to keep and manage a company's primary, main and support activities (Giunipero *et al.* 2006; Hines, 2006; Porter, 1998; Triantafillou, 2007; Van, 2000). Throughout the world, public purchases are very decisive component in the delivery of goods, services and functioning of various departments of the government institutions. It is imperative on the government to ensure that goods & services are provided efficiently to the public. (Uyarra & Flanagan, 2009). The public procurement procedures are crucial for this to be achieved. All goods & services for public use should be directed by the public procurement requirement (Roodhooft & Abbeele, 2006).

Procurement includes several overarching business activities that participate in the acquisition of resources: letting contracts, selecting vendors, vetting and obtaining resources as well as establishing contract terms and conditions. In contrast, *purchasing* refers to a subsection of procurement that simply expresses the particulars of buying, receiving, and paying for resources (Department of Education and Skills, 2017).

Procurement practices are a set of different activities undertaken by an organization to stimulate effective management of its supply chain (Sollish & Semanik, 2012). It is the foundation for private firm's success. Its proper practices lead to competitive purchase and getting quality materials. The main goals of procurement are related with quality, financial and technical risks reduction, creating integrity in the organization and safeguarding from competition (Walter *et al.*, 2015).

Procurement is vital to organizations and its strategies have become part of a business success. It increases efficiency & competitiveness & to realize these; it is energetic to give emphasis about the tactical factors that affect the performance of the procurement effectiveness. Internal & external forces are influencing the skill to recognize the procurement goal. Relations among different foundations like professionalism, staffing levels & budget resources, organizational arrangement whether centralized or decentralized, procurement regulations, rules, guidelines, procedures and internal control

policies, and the like all have impact on the performance of the procurement function and needs attention (Kim *et al.*, 2013).

For the growth of African countries, it is very important to have efficient public procurement system & tangible commitments should be applied to make the best possible use of public resources (Kabaj, 2003). In the private sector procurement performance produced financial loss due to supply of poor-quality materials, unknowingly value for money and high inflated prices all these decrease in profitability of private sector adds up due to poor procurement performance (Juma, 2010). According to Migai (2010), in the private sector, weak procurement performance is the main problem for its growth and it becomes the causes for delay in delivery, increase defects, and delivery of low-quality goods or no delivery at all. In the private sector weak procurement performance has been a problematic because of traditional procurement procedures, incompetent staff, poor coordination of procurement activities, failure to embrace e-procurement, lack of quality assurance policies & proper regulations (Juma, 2010). Activities of procurement usually suffer from neglect, poor co-ordination, lack of open competition and transparency.

Procurement performance contributes to the overall performance of an organization through cost savings, improved quality and reduced lead times, which leads to internal customer satisfaction (Kinuthiaetal, 2015). Public procurement has increasingly become prominent in the print & electronic media underlining how public entities capture the entire process (Japheth, 2013).

Sustainable procurement is about socially & ethically responsible purchasing, reducing environmental influence through the supply chain, delivering economically sound solutions and good business practice (Betsy *et al.*, 2015). The public procurement process consumes scarce skilled public sector human resources, takes time, not merely for procurement planning and contracting but also for contract supervision and execution (PPA, 2011). Moreover, it is also used as a strategic tool to enhance government performance and the quality of services since it requires a multifaceted approach for reform. On the other way, public procurement systems should be measured not merely by formal compliance with procedures but also by the achievement of development and other policy objectives. The core aspects of public procurement systems involve getting the right item at the right time, and at the right price, to support government actions (Wittig, 1999).

According to OECD (2007) and Witting (1999), public procurement is the largest domestic market in developing countries like Ethiopia. It has a direct and beneficial effect on economic situation of a country as it accounts for large share of public expenditure in domestic economy. Public procurement expenditure forms are an important part of the government budget.

Despite, the Ethiopian government efforts to improve the procurement system and performance, it is still showing gaps in practical effectiveness. Poor quality of goods and services; incapability to achieve domestic policy goals; uncoordinated performance results in failure to attract and retain professionals, and improper implementation of performance standards results in unnecessarily high operation costs were the observed shortcomings (Smith & Conway, 1993). Therefore, this study tend to examine the factors that affect procurement effectiveness in Oromia national regional state from the selected town and city administration public sectors.

1.2 Statement of the Problem

Procurement role has been one of the vital departments in any organization. It contributes tremendously to the organizational efficiency and effectiveness. Any head of department is expected to purchase goods/services or works at the right time, price, place quantity and quality for the use of all the departments in the organization so that the organization would derive great benefits from this and would therefore be able to serve their customers in a better way (Snider and Rendon, 2001). According to Wittig (1999), public procurement remains a big part of the economy of developing countries, accounting for an estimated 9-13% of their gross domestic product. Equally, it is an area in need of care since resources are not being properly managed in these countries due to corruption & misappropriation (Wittig, 1999). So far there have been so many research works conducted in different parts of the world on the challenges that hinder the public procurement effectiveness (Edquist, Hommen and Tsipouri, 2006; Fraunhofer, 2005; Sriskandarajah, Jardine & Chan 2007; Hall, 2009; Walker & Brammer, 2009; European Union, 2015). Among others, in the United Kingdom, Walker and Brammer (2009) investigated sustainable procurement in public sector and reported the various differences in procurement processes among public sectors. They reported how the differences such as local authorities buying more from the local market, health came last in many

categories, while education sectors appeared to emphasize on environmental feature of procurement.

Particularly, studies have suggested that an efficient public procurement system is dynamic to the development of African countries and is a concrete expression of their national commitments to making the best possible use of public resources (Kabaj, 2003). Kakwezi and Nyeko (2010) assert that the procurement departments of public entities in Uganda are confronted with the problem of not having sufficient information about the procurement system, its inputs and outputs, resource consumption and results, and are therefore unable to determine their efficiency & effectiveness. This indicates that such a problem requires establishment of clear procurement procedures and performance standards. Moreover, most studies conducted in developing countries even have produced inconsistency due to their culture, attitude, economic growth and the other like Kenya and other sub-Saharan countries evidence about factors determining good procurement effectiveness procurement function has been one of the vital departments in any organization. It contributes tremendously to the organizational efficiency and effectiveness. any head of department is expected to purchase goods/services or works at the right time, price, place quantity and quality for the use of all the departments in the organization so that the organization would derive great benefits from this and would therefore be able to serve their customers in a better way (snider and rendon,2001).

In developing and especially transitional countries, where legal systems are not inclusive, government contracts may need detailed provisions. This is supported by Asante (2017), who found that enormous funds are lost every year because public procurement policies are poorly managed. In view of this, public sector workers need to be properly managed to make sure that compliance with important regulations, policies, and procedures are achieved.

In Ethiopia few studies were examined in relation to factors affecting procurement practice (Anteneh, 2015; Gizachew, 2012; Aradi, 2019). Specifically, Gizachew (2012) identified some challenges in the Ethiopian procurement system effectiveness and performance, including poor quality of goods and services; incapacity to achieve domestic policy goals; uncoordinated performance results in failure to attract and retain professionals, and improper implementation of performance standards results in unnecessarily high operation costs. Aradi (2019) conducted to assess factors affecting the

public procurement; similarly, Senate et al. (2016) conducted to assess factors affecting procurement performance.

However, these studies feature at least two main limitations. First, these past studies did not apply proper econometric methodology and their findings failed to estimate the effects of each factor of procurement effectiveness, see for example Aradi (2019) and Senate et al. (2016). Second, plenty of studies were carried out in countries outside Ethiopia, example (Arminas, 2006), Thai (2009), Nantage (2011), Kumar (2005). These do not provide generalization in Ethiopia because of the differences between countries in legal system, quality of governance and level of development.in our country Therefore this study was intending to examine factors affecting the procurement effectiveness with regard to: evaluating planning, the professional ethics, staff competency, application of policies and procedures developed and presented by public procurement agency.

1.3. Research Question

At the end of this study the researcher aims to get answer for the following research questions;

1. What is the effect of procurement planning on procurement effectiveness?
2. What is the effect of procurement staff competency on procurement effectiveness?
3. What is the effect of procurement procedure on procurement effectiveness?
4. How the resource allocation affects procurement effectiveness?

1.4. Objective of the Study

1.4.1. General Objective

The main aim of this study is to examine factors that affect procurement effectiveness taking in the case of Oromia national regional state public sectors.

1.4.2. Specific Objectives

Based on the general objective of the study, the specific objectives were:

1. To examine the effect of procurement planning on procurement effectiveness.
2. To evaluate the effect of procurement staff competency on procurement effectiveness.

3. To investigate the effect of procurement procedure on procurement effectiveness.
4. To examine the effect of resource allocation on procurement effectiveness.

1.5. Scope of the Study

Scope of a given study and survey is usually looked at from various perspectives which could be in terms of areas of coverage as related to the subject matter and viewpoints of geographical reach with in a given time and budget limit allocated for the assignment. Accordingly, this study was carried out in public sector of selected Oromia town and City Administration, Oromia, Ethiopia. The survey was conduct on 186 sample employees of Finance from selected Oromia town and City Administration of public sectors because this sector is comprehensive for all to study procurement effectiveness. Conceptually, this study focuses on the procurement effectiveness and the factors affecting the procurement process of selected Oromia Town and City Administration public sectors.

1.6. Limitation of the study

The main limitation of this study was unwillingness to provide the right information by respondents in the process of collecting the relevant data. The sources of difficulties that encountered in this study can be described as: There is high turnover of employees in government offices such as finance sector. This made it very difficult to access information related to procurement effectiveness Operator's reluctance to cooperate due to suspicion that disclosing information may lead to negative effect on their work also another problem that encounter in the study. In addition, respondents delay in giving the required data, and few respondents failed to respond to requests which made data collecting time longer and finalization of this study. Besides, the most compelling limitation was COVID-19; it has been a series challenge to approach the respondents and communicate them the reality concerned with procurement effectiveness

However, it is very important to note that these limitations were not significant interference with the outcome of the study.

1.7. Significance of Study

This study will help in identifying the factors that affect procurement effectiveness in public sectors. More specifically, the study has values for the following bodies with their relevant significance. To create awareness among policy designers, decision makers, to indicate managerial direction for the authority and management pertaining to the

effectiveness procurement; and, to obtain information, knowledge and experience that may serve to reduce the inadequate procurement planning and poor drafting of specifications, lack of advertising the detailed planning of the procurement before start of procurement process, minimize Insufficient use of open competitive tendering and lack of monitoring and evaluation are some of the challenges that hinder the public procurement effectiveness Moreover, it will serve as a reference for those who are going to carry out further study in this field in depth and as a reading material who are interested to conduct further study.

1.8. Organization of the Study Paper

This study has been organized in five chapters. The first chapter consists of introduction, background of the study, statements of the problem, objectives of the study, the significance of the study, & the scope of the study. The second chapter deals about the theoretical, empirical related literature reviews and conceptual frame works. The third chapter including description presents methodology of the research. In the research methodology part, the research design, sampling design, data sources and data collection techniques are also included.

Chapter four presents' data analysis and results of the findings and interpretation the last chapter, comprises the summary, conclusion and recommendations of the study.

CHAPTER TWO

2. LITERATURE REVIEW

. 2. Introduction

2.1. Concept and Definition

The term procurement is explained as the acquisition of quality commodities, or services at a cost-efficient rate (Cole, 2007). In more simple terms, Cole (2007), explains that procurement may be referred to as the process whereby products are assessed at low prices. The dictionary of Business defines the term procurement as the all-encompassing task of the procedures necessary to obtain goods and services (Business Dictionary, 2011). Procurement in principle is different from “purchasing”, in that, the former deals with undertakings involved in creating essential requirements, in sourcing activities like researching into the market, performing an evaluation on vendors as well as contract and negotiations.

The later forms part of procurement thus, it is part of the activities of necessary for goods & services to receive. The processes of procurement flow along six different channels. As described by Weele and Van (2010), these stages of procurement include specifying the needed good or service, choosing of suppliers; giving out the indenture or placing an order, expedition and assessment of the whole procurement process. On the other hand, Monczka et al., (2003) talks about five cyclical events in the procurement process but agrees with the processes outlined by Weele and Van (2010). According to Article 2/5 of Ethiopian Federal Public Procurement & property Administration Agency proclamation No. 649/2009 (EFPPAA), "Procurement means earning goods, works, consultancy or other services through, purchasing, hiring, or gaining by any other predetermined means; the more process of obtaining goods & services is incorporated by procurement. It starts when an agency has acknowledged a need and agreed on its procurement requirement. Procurement lasts through the procedure of risk assessment, looking for & evaluating substitute solutions, contract award, delivery, payment for the goods and services where relevant, the on-going consideration of options related to the contract and management of contract, procurement also spreads to the ultimate removal of property at the end of its useful life (Waters 2004).

2.1.1. Roles of Procurement

Procurement is the main activity in the supply chain. The general achievement of an emergency response that depending on how it is managed is meaningfully affected by procurement. In most organizations, procurement should be managed successfully to achieve optimal value and represents a very huge share of the total spend. Procurement works like a pivot in the internal supply chain procedure rotating around requests into tangible goods or services to fulfill the needs (Caldwell et al., 2009).

The internal customer, programs, and prepositioning of stocks are the 3 levels of users that procurement serves (Lewis and Roerich,2009). These specific objectives are explained:

- To purchase quality goods, items and services economically from reliable sources
- To affirmation timely delivery through the selection of capable and efficient suppliers
- To continuously locate, evaluate and develop economical and consistent supply bases
- To identify the most trustworthy bases of supply through either open tender, multistage tendering and limited tendering.
- To investigate the availability of new materials and monitor trends in market prices
- To purchase in accordance with organizations policies

There are three important principles of procurement. The first principle is as it's known transparency, which provides that all phases in the procurement process are fair and accurately documented. The second principle is that of accountability and it points out that there is need for accountability to financiers, who may require certain rules to be followed when using the money, they have provided. Finally, there is the principle of efficiency and cost effectiveness and this principle is about meeting the 'six rights' of supply (right price, right time, right quantity, quality services, and delivery to the required places and from the most cost-effective source) (Caldwell, 2009). Procurement has an important role to play in organization should put in place effective systems of procurement to protect shareholders funds. The procurement function forms a key part of any management strategy. The particular features of procurement are the budgets involved, the frequency of activities and technical complexity of the functions.

More recently as a function procurement has been complicated by the inclusion of 'manufacturing partnering' and by the acceptance that best value cannot be measured by price alone, but needs to take account of time, quality and sustainability (Shaw, 2010). Procurement also plays a key role in manufacturing and trade, which can significantly influence a company's success. As a core function it is, however, subjected to the extra-large trends of the market. Its day-to-day presence is very much defined by rising procurement volumes due to greater consideration of business on essential abilities, globalization of procurement markets, rising market dynamics as well as the ever-shorter product lifespan. For a procurement organization to operate both efficiently & effectively in such a complex environment beneficial structures need to be created and proper instruments put to use (Shaw, 2010). Information technology can have the main role in this respect. It can offer smoother and faster course flow, efficient spreading of information, decentralization of responsibilities and decisions, improved transparency and better control. Government representatives and elected leaders have gradually come to understand that public agencies must consume ICT in order to modify the procurement procedures in the government sector. Encountered with tight budgets and a retiring workforce, today's government agencies are functioning in an environment defined by the necessity to 'do high with less'. Public authorities are anticipated to deliver outstanding service to their elements in an effective & transparent manner, all the while working under constant resource limits by adopting ICT (Hagen, and Zeed, 2005).

The importance procurement function in organizations has received & endures to receive growing consideration as the years go by. Procurement increases efficiency & competitiveness among other aids but to recognize these benefits, it is imperative to look at the tactical factors that affect the performance of the procurement function. Choice and preserving experienced suppliers are very important in procurement. Nevertheless, many factors affect a firm's ability to select the right supplier. There is a need to isolate the strategic supplier linked factors & include them in the supplier selection criteria. Some of the factor's firms consider include trust & commitment, ample finance, quality, trustworthy delivery times, ample logistic and technological capabilities (Cox, 1999).

2.1.2. Procurement Performance

Procurement performance covers a number of quality & quantity-improving standards, which narrows down transaction costs, time spent, & the quality and quantity of goods

delivered. The procurement performance needs high returns on investment, reduced transactional costs, quicker delivery of services and supplies, transfer of high-quality purchases, and efficient supply chains based on their analysis on the performance of public procurement officers (Odhiambo and Kamau, 2003).

Procurement performance in the modern world entails all successful undertakings that deliver great value that can enhance the long-term socioeconomic welfare of the target population, decrease greenhouse gas emissions, enhance community productivity, builds the target population's innovation capacity, and most importantly, fulfills the target population's day-to-day life interests (Awiti and Bohnstedt, 2008).

Furthermore, Awiti (2008) and Odhiambo and Kamau (2003) in their analysis of the performance of several organizations' procurement departments in the business world found that best performers in procurement fall into two broad categories of transaction costs and the level of the utility of the goods procured. These are two critical areas given that during hard economic times organizations must consider every avenue for cutting costs in order to survive while at similar time acquiring the most adequate supplies that can cover their short-term and long-term production needs.

The procurement department plays a progressively important role in achieving this strategic goal. This is because a purchasing officer in an organization is charged with responsibility of benchmarking all the target achievements within the organization while functioning at the same time as a key performance pointer for the control and allocation of key supplies. Arguably, procurement performance can be labeled as a sustainable competitive benefit builder in the sense that its flagship pillars are reduced transactional costs and faster delivery of quality supplies (Morita and Nakahara, 2004).

Procurement performance has to do with the proper management of procurement activities. The management of procurement activities narrows down to the basic functions of the HR departments of hiring best procurement management talent, subjecting this top talent to on-the-job training and development, rewarding and motivating this top talent through competitive salaries, benefits and career progression (Bianchi and Guidi, 2010).

Procurement accounts for a large portion of a firm's resources and time and in light of the highly competitive environment, it is essential for every organization to maintain - an

efficient and effective procurement so as to cut administration costs and to keep well-informed of the market circumstances (Bohnstedt, 2008).

Procurement performance can be realized if organizations discard their trademark paper-based procurement systems especially when procuring crucial materials that have a direct bearing on their overall competitive advantage. Organizations should graduate into ICT powered procurement systems to keep a track of their suppliers so as to make the right procurement decisions whenever they require supplies (Mukhopadhyay and Kekre, 2002).

2.2. Theoretical Review

Public procurement is described as the process by which public sector organizations, ministries, and local authorities acquire goods and services. These goods and services are quality items, stationery, and standard to more complex expenditures such as the construction of roads and key services to citizens (Roodhooft and Abbeele, 2006). Because of the significance function of public procurement, the public procurement performance in most countries is controlled by public procurement laws and regulatory frameworks.

Obviously, procurement has an important role to play in helping the public sector to achieve its core missions, objectives and to prepare for the uncertainty ahead. In order to achieve authenticity and efficiency in public procurement, it is an important task, as procurement faces numerous challenges, especially due to the nature of current market structure, the legal frame and the political environment that procurers have to deal with (Thai, 2009). The African public sector has been struggling with poverty and provision of effective services. Besides personal emoluments, public purchases account for about 24% of all goods & services that are imported into Ghana. Between 50 to 70% of the country's budget and 14% of the GDP is spent on public purchases (Adjei, 2005). The World Bank (2003), states that, about 14% of the country's GDP at a monetary value of US\$600 million is spent on purchasing of goods, works and consultancy every year (The World Bank, 2003). The bulk of this spending was done on the activities of the various government agencies, departments and ministries. Other public agencies that benefited from this include public Hospitals, government owned Universities, public Schools and Colleges whose activities require the acquisition of services, goods technical and consultancy services.

Public procurement is a vital tool to promote the objective of economic development. In developing countries, it is one of the main instruments to the attainment of development goals such as reducing poverty and providing health, infrastructure, education and other basic services hence greatly contribute to best use of public resources (Amdework and Aemiro, 2014). According to OECD (2007) and Witting (1999), public procurement is the largest domestic market in developing countries like Ethiopia. It has a direct & beneficial effect on economic situation of a country as it accounts for large share of public expenditure in domestic economy. Public procurement expenditure forms a significant part of the Government budget and constitutes a significant investment which lay foundation for national development.

These investments categorized in procurement terms in Works, Goods and Services. The quality, timeliness, local correctness and affordability of these procured investments can largely conclude whether the public investments will succeed or not. Procurement cost substantially consumes scarce resources of tightly constrained government budgets. Moreover, the public procurement process consumes rare skilled public sector man power, takes time, not only for procurement planning & contracting but also for agreement observation and implementation (PPA, 2011).

Public procurement is central to the delivery of public services, results, and performance. It is used as a strategic tool to enhance government performance & the quality of services; it requires a multifaceted approach for reform. Public procurement systems should be measured both by formal compliance with procedures and the accomplishment of development and other policy objectives. The core aspects of public procurement systems involve getting the right item at the right time, and at the right price, to help government activities (Wittig, 1999).

The experience in developing countries indicates that, public procurement can account for up to 50%-70% of imports (Wittig, 1999). As public procurement systems have a direct and beneficial effect on economic situation of a country, it needs significant improvements. Public procurement systems are the bridge between public requirements of basic services, such as hospitals, schools, roads etc., as governments are required to provide goods & services to meet a Variety of citizen needs (Wittig, 1999).

According to Wittig (1999), public procurement continues to be a large part of the economy especially for developing countries, accounting for an estimated 9-13% of their GDP. Nevertheless, it is an area in need of responsiveness since resources are not being correctly accomplished in many countries. Public procurement is the government activity most susceptible to corruption. Lack of transparency & accountability were recognized as a main risk to integrity in public procurement. It is always identified as a major problem area, where cumbersome procedures slow down project execution, however, appropriate attention from key decision-makers in Government were not given (Wittig, 1999). In public procurement, inadequate procurement planning and poor drafting of specifications, lack of advertising the detailed planning of the procurement before start of procurement process, Insufficient use of open competitive tendering and lack of monitoring and evaluation are some of the challenges that hinder the public procurement effectiveness (Jones, 2013).

According to (OECD, 2007), the major challenges with public procurements are: lack of satisfactory needs assessment, deficient business cases, poor procurement planning; failure to budget realistically resulting deficiency in the budget; Procurements not aligned with the general investment decision-making process in are some. These challenges were identified as the main barriers to ensure value for money and contribute for failure to achieve organizational objective within the targeted timeframe. Preparation of a workable procurement planning in public organization, at the beginning of the fiscal year has a very significant importance.

2.2.1. Public Procurement Challenges

Internal Factors: Public procurement experts have always walked on a tight line. Their ability to complete procurement objectives & policies is affected very much by internal forces including: connections between various elements of the public procurement systems, numerous officials & organizations in the three divisions of government, and numerous actors & sub-agencies inside a department or executive agency and actors and organizations external to sub-agencies; The types of goods, services and capital assets essential for an agency's missions; professionalism or quality of procurement workforce; staffing levels & budget resources; procurement organizational structure such as; procurement principles, rules and guidance; and internal controls and legislative oversight. These were confirmed by Asante (2017), who found that the most of

practitioners participated in public procurement lacked necessary professional expertise and knowledge of the law governing the practice. This, therefore, places them at a disadvantage in ensuring that the achievement of good procurement is professionalism.

External Factors

Thai (2008) pointed out that public procurement experts have always encountered problems imposed upon by a diversity of environmental factors including the market, legal environment, political environment, organizational environment, and socio-economic and other environmental factors.

Market Environment

Market conditions have a great impact on public procurement practitioners' efforts to maximize competition. Besides, the market regulates whether or not socio-economic objectives of procurement are addressed, whether or not a governmental body can accomplish its needs; the relevance of fulfillment; and the quality and costs of purchased goods, services & capital assets (Thai, 2009). According to Mckie (1970), public procurement, especially of high-value items, operates in a market condition where competition is distorted. It is a large buyer large supplier situation with barriers to entry thus, competition is not perfect.

Legal Environment

Apart from public procurement regulations and rules, the legal environment is a wide legal framework that rules all business actions including research and development, manufacturing, finance, marketing, personnel, and contracts. Indeed, most features of contracts, public or private, such as contract requirements, arguments, and opening of contract are ruled under the same contract law. In developing and particularly transitional countries, where legal systems are not complete, government contracts may need comprehensive provisions. This is supported by Asante (2017), who found that enormous funds are lost every year because public procurement policies are poorly managed. In view of this, public sector workers need to be properly managed to make sure that compliance with important regulations, policies, and procedures are achieved.

2.2.2. Determinants of Procurement effectiveness

Several factors have been identified as responsible for the performance of procurement procedures in the public sector. The following are the major factors that affect procurement effectiveness.

2.2.3. Procurement Planning

The purchasing role through which organizations get products & services from external suppliers is termed as procurement planning. (Burt et al., 2004). A procurement plan describes and documents the facts of purchases from suppliers required for a certain department. According to Basheka (2008), procurement planning is the main function that sets the stage for consecutive procurement activities. Similarly, James (2004) describes that the principles of planning can be applied in an atmosphere of whole agreement. He supplementary states that, as a function, procurement planning endeavors to answer the questions as to what one needs to procure; when to procure it; where to procure them from; when the resources be obtainable; the methods of procurement to be used; how appropriate procurement or failure will affect the consumer of the items; the procuring & ordering entity; efficiency in the procurement process; and the people to be participated in the procurement. Peter (2012) pointed out that good procurement plan should label the process in detail to assign relevant suppliers contractually. Initially, the items wanted to procure are defined, and then the process for acquiring those items is expounded in detail. Finally, the timeframe for delivery is scheduled. Moreover based on Quentin (2003), procurement planning is significant due to the following reasons: it aids to choose what to buy, when & from what sources; it allows planners to fix if expectations are accurate; particularly the hopes of the requesting entities, which usually anticipate their requirements encountered on short notice and over a shorter period than the application of the matching procurement method allows; it is an opportunity for all participants involved in the processes to meet in order to discuss particular procurement requirements.

2.2.4. Staff Competency

In procurement process Armstrong and Baron (1995) clarified that know-how is the application of knowledge and skills, performance delivery, and the behavior is crucial to get things done very well. Moreover, competency specifies adequacy of knowledge and skills that allow someone to act in numerous circumstances (Aketch and Karanja, 2013).

According to Russell (2004), lack of suitable awareness in procurement matters, may end up with serious consequences including gaps of codes of conduct. According to Banda (2009), many organizations do not have staff with the right competence serious to good procurement process management. As a result, large & continuous investment is incurred in training and development (Sultana, 2012) and there is a need for extensive external training for human resources to be able to improve and contribute to the efficiency of organizations (Appiah, 2010).

Moreover, Saunders (1997) advises that multiskilling offers employees with a variety of skills and should be developed extensively. Hence, all employees need wide and nonstop training as well as education. Leenders and Fearon (2002) reminded that qualifications are decisive for value-based management which desires employees to evaluate and modify processes while contributing to group performance. Baily et al, (2005) suggested that the existence of top-down objectives with related performance measures, and process rules link individual or group performance to the firm's goals and prospects of upper management which require good qualifications. Banda (2009) stated that many organizations lack competent staffs with the proper knowledge for good procurement process management. He further noted that authorities should give greater emphasis for developing competence to adopt best practice more widely. According to Berger & Humphrey (2007), a procurement function that is carried out professionally is the core of delivery of any service on value for money principle. Furthermore, Sultana (2012) stated that in order to sustain economic growth & effective performance, it is important to improve the contribution of employees to the aims and goals of the organizations. Therefore, competence can ensure that the benefits of new products and services are brought to the attention of the right person in the organization.

2.2.5. Procurement Procedures

Moncska et al. (2010) stated that procedures provide guidance to staffs what to follow in the execution of activities put constraints on behavior and show how the procurement function should work to achieve strategic objectives. Organizations need standard procurement procedures which cover all the aspects of procurement cycle, including supplier selection, contract negotiations, order placement & payment (Oumaand Jennifer, 2014). Procedural procurement ensures orderliness and efficiency in any procurement department. Baily et al. (2005) discussed 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. Ineffective procurement procedures would end up with failure of the objectives of government policy. Burt et al. (2004) stated that every organization is expected to develop procedures to enable its personnel implement policies and plans; designed to meet objectives. Jones and George (2009) noted that bureaucratic mechanisms are controlled by a comprehensive system of formal rules & standard operating procedures that shapes and regulates the behavior of divisions, functions and individuals. Moncska et al. (2010) noted that the procurement function has a significant influence on business performance. As a result, traditional procedures are becoming obsolete in modern organizations. Finally based on (Eriksson and Westerberg, 2011), procurement perceptions are affected by the existing organizational structure, quality of internal communication system, past experience and resources available. Without elaborate and effective procurement procedures, government policy objectives would fail to meet the desired objectives.

2.2.6. Resource Allocation

The process of determining the dominant way to use available assets or resources in the implementation of a given project is known as resource allocation. Companies try to distribute resources by reducing costs and increasing profits using strategic planning methods, operational guidelines and implement policies and procedures that move the business toward the achievement of its goals (Shantanu et al., 2012). Resource allocation commences at strategic planning when a company formulates its vision and goals for the future. Most of the public entities lack clear accountability on how the resources provided impact on their performance therefore going against the fundamental principles of public procurement, Ouma Danis et al., (2014). Assets that can be seen & measured such as production tools, manufacturing plants, & formal reporting structures are tangible resources. Intangible resources include assets that characteristically are rooted extremely in the firm's history & have accumulated over time (Michael and Hoskisson, 2007).

2.2.7. The Five Key Purchasing Variables

2.2.7.1. 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).

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 includes 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 and 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).

2.2.7.2. 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 good 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 supplier know and fully aware that on-time delivery is an important element in their marketing max Gopalakshan p. and Sundaresan. M. (2002).

2.2.7.3. *The Right Supplier*

The supplier has a strong enough financial base/financial capacity. For tending the procurement effectiveness. In addition to the supplier is a competent (the supplier, its people or its process competent and has adequate man-power to handle the order) in order to accomplish every procurement. The supplier is in a position to honor the commitment without much follow-up Bail p. et al (1998).

2.2.7.4. *The Right Price*

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

2.3. Empirical Review

2.3.1. Procurement effectiveness

The importance of proper management of procurement is highlighted by the fact that it accounts for a substantial portion of firm's resources and time. In such a highly competitive environment today, it is vital for every firm to preserve a well-organized & effective procurement function to decrease administration cost & to keep well-informed of the market situations to procure material & services at the right price, quality and time.

Procurement is generally affected through a contract. Simple procurement may contain nothing more than repeat purchasing. Complex procurement also could participate in finding long term partners or even co-destiny suppliers that might basically commit from one organization to another. Long procedures have sometimes challenged efficiency in the public procurement system (Arminas, 2006). All-encompassing public procurement policies & practices are amongst the key tools of good governance (World Bank, 2005).

Otieno (2007) noted that irregular procurement actions in public institutions deliver the largest gap through which public resources are stolen. In some cases, tenders are given to firms either through single sourcing or from manipulation of bids; and worse still, all payments have often been made for projects that fail to launch or are abandoned half way. Still in other cases, tenders are endowed to uncompetitive bidders through irregular disqualification of the lower bidders. According to Thai (2009) and Uyarraand (2010) accountability, where effective mechanisms must be retained in place in order to assist procuring entities spend the restricted resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single

sourcing; and consistency, which stresses the equal treatment of all bidders irrespective of race, nationality or political connection are among the basic principles of good procurement practice. The world oil industry has experienced substantial change in the past eras. The part of this change is the result of external, global forces. Internally, the industry has found ways to cut the cost of finding and producing oil (Donald, 2006).

Gordon (2009) sought to establish perceived local government (LG) procurement best practice. Its contribution is in highlighting that perceived best public procurement effectiveness may well, in the short-term, be unsuitable and perhaps delay economic recovery. Suggestions for more radical short-term procurement strategic interventions were set out and justified as accelerating the economic recovery. The suggestions were considered appropriate, not only for the crisis, but also for future economic down turns or indeed any country facing similar problematic aspects in procurement areas.

According to Nantage (2011), the research on the effect of procurement management on the financial performance of banks in Uganda with a case study of FINA Bank Uganda Ltd. Specifically the study reviewed procurement planning, control and monitoring and how they affect the performance of the banks. It was hypothesized in the study that procurement planning, controls & monitoring are positively affect the performance of the banks. The main findings of the study specified that the three procurement management characteristics i.e., procurement planning, controls and monitoring positively affects the performance of the bank. This was because there were significant relationships that were established from the study between these variables and the financial performance of the bank. According to Ayitey(2012) who investigated the size to which the implementation of the public procurement reform affects the act of public entities. This study explores the major issues involved in public procurement in Ghana and analyses the general impact of this reform on public procurement organizations performance. The finding reveals that there is the great relationship between performance and principles of compliance within the public procurement reforms.

Ngugi and Mugo (2012), did a study on the internal factors affecting procurement practices of supplies in the public sector and their findings stated that accountability, ICT adoption & ethics affect procurement process of health care supplies in the public sector to a great point. The study therefore recommended that adequate control should be put in place for reducing opportunities of corruption.

Kumar (2005) conducted a study on procurement performance measurement systems in the health care industry. The results of the study showed that there is no one method that covers every purchasing department in any organization, and a number of key measures were found to be common in evaluating performance, these includes, cost saving, vendor quality, delivery metrics, price effectiveness and inventory flow. Although these important measures are common, the weight placed on these measures was by no means unchanging and will different between industry to industry & business to business. In addition, the necessity of these measures to the whole effectiveness of a purchasing department will alter over time and therefore need to be assessed and modified on a periodic basis.

Mamiro (2010), in his finding give emphasis to these facts & concludes that one of the main setbacks in public procurement is poor procurement planning & management of the procurement process which contain needs that are not well identified & estimated, impractical budgets and insufficiency of skills of procurement staff responsible for procurement. Similarly, Kakwezi et.al., (2010), argues that procurement performance is not usually measured in most procurement entities as compared with the human resource & finance functions. They generalized that in their findings that failure to create performance of the procurement function can lead to irregular and biased decisions that have costly consequences to any public procuring body. Nowadays, there has been increasing amount of research on constraints to business relationships and practice.

2.3.2. Procurement Practice in Ethiopia

As Aradi (2019) conducted to assess factors affecting the public procurement performance with reference to Shashemene town. The study used research methodology which could contribute to the mitigation of the aforementioned problems which have been identified as affecting the public procurement performance. A mixed research approach, descriptive and cross-sectional survey design were used during data collection and analysis. Moreover, inferential statistical methods like correlation analysis were used to assess the relationship between factors affecting the public procurement performance. The study used Likert Scale to collect data from 85 sampled respondents. The finding of the study indicates that all factors affecting the procurement performance have a positive significant correlation with public procurement performance. The multiple linear regression analysis exposed that all explanatory variables have a statistically significant

relationship with procurement performance. This indicated that factors affecting (independent variables) are highly associated with the public procurement offices in the study area.

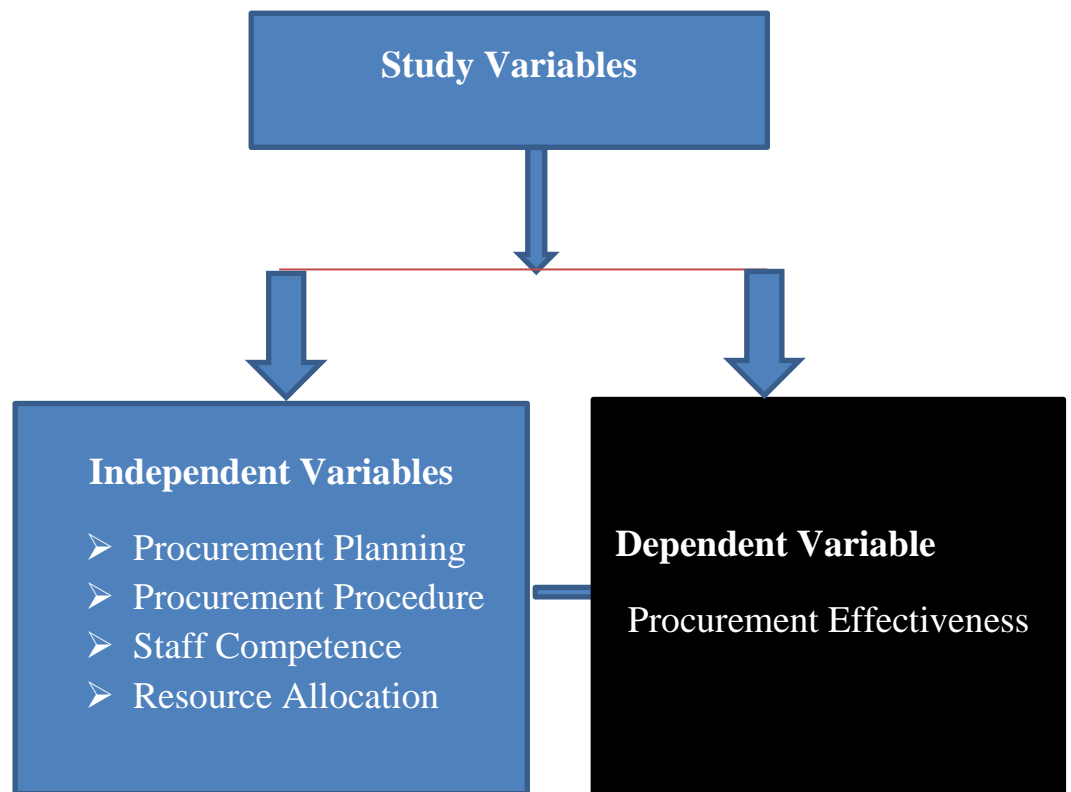
According to Senait *et al.*, (2016) study conducted to assess factors affecting procurement performance in Awassa Textile Share company. The study was conducted to inspect the impacts of staff competency, procurement procedure and resource allocation on procurement performance.

Similarly, empirical review evidence in relation to organizational procurement practice is the study undertaken by Rebecca (2007), who sought to pursue the understanding of current effectiveness of e-procurement business practices by describing the success factors and challenges to its implementation in the corporate setting. The study through factor analysis resulted in three e-procurement success factors: supplier and contract management; end-user behavior and procurement business processes; and information and e-procurement infrastructure. Three challenge to execute factors also appeared: lack of system integration & standardization issues; immaturity of e-procurement-based market services and end-user opposition; and maverick buying and difficulty in integrating e-commerce with other systems.

2.4. Conceptual Framework

A conceptual framework is a set of comprehensive ideas and principles taken from appropriate fields of enquires and used to structure a subsequent presentation (Bogdan and Biklen, 2003). Based on the literature review, a conceptual frame work for this study developed as shown in Figure below. The major objective of the research is to examine the factors affect procurement effectiveness in public sectors of selected Oromia town and city Administration. Procurement effectiveness as dependent variable & independent variables comprised of procurement planning, staff competency, resource allocation and procurement procedure. The conceptual framework below illustrates the relationship between the independent variables on all sides and the dependent variable on the center. As reviewed in literature part some of measurements for procurement effectiveness are procurement planning, staff competency, resource allocation and procurement procedure. In this study these variables are independent variables which influence the dependent variable which is procurement effectiveness. The conceptual frame work can be summarized as follow:

Fig.2.1: Conceptual Framework



2.5. Research Gap

Evidence from the reviewed empirical literature shows that most of the studies conducted on the performance of the public procurement focused on compliance organizational structure, procurement planning, employee's competency and utilization of ICT but there was no specific independent variable addressing on the effect of procurement internal control in the procurement performance of public entities. Likewise, they were not clearly explaining the influence level (contribution) of procurement planning, staff competency, ICT utilization on procurement performance. Not only this does the pervious authors employ the right way to estimate parameter.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1 Description of Study Area

Oromia Region is one of the 10 regional state in our country Ethiopia, Owing to the federal system of government structure, the regional state of Oromia was established in 1992 as per the proclamation No.7/1992 which was issued to establish regional self-government in the country. The proclamation empowered the regional government to establish its own structure, fully exercise the right to self-determination, and build a political community founded on the rule of law, capable of ensuring a long-lasting peace, guaranteeing a democratic order, plan and implement growth strategy believed to foster resource utilization and economic maximization in the region.

The administrative structure of the region embraces the Regional Government, Zonal, Districts and Kebeles. Currently, the region consists of 21 zones and 304 woredas. Organs of the regional state comprise the ‘Caffee parliament’, which is assigned with the legislative power and is the supreme organ; the administrative council, in which the executive power is assigned and is accountable to ‘caffee’; and the court, in which the judicial power is vested.

Oromia is the most populated and the largest among all Ethiopian administrative regions. It extends from 3040’N to 100 35’N and from 340 0S’E to 430 11’E. The land area of the region is estimated at 284,538km² (26.8% of the country’s land mass). The elevation of the region varies from less than 500m to 4,000m above sea level. Its climate is affected significantly by difference in altitude, its latitudinal position, prevailing winds and air pressure and circulation and its proximity to the sea. According to the 2013 population and housing census, the estimated population of the region was estimated at 35,220, 000, that is 37.2 % of total of the country.

Figure 1. Map of Oromia Regional State



[Source www.ethiodemographyandhealth.org](http://www.ethiodemographyandhealth.org) › Oromia

3.2 Research Approach

According to Creswell (2014) there are three basic types of research approaches such as quantitative, qualitative and mixed methods approach. In quantitative approach data is collected through questionnaire survey and the results can be quantified with the help of statistical tools. In this approach it is possible to compare and study several determinants and analyzing and testing them empirically to prove if there are relations to be found in order to draw conclusions. According to Kothari (2008) qualitative approach have an emphasis on understanding, observing and interpreting the data in a natural setting and with a sort of insider's view. In this study, a quantitative method of data analysis was adopted. The data collected from survey questionnaires, was carefully coded and checked for consistency and entered into the SPSS and STATA.

3.3. Research Design

In this study, the researcher employed explanatory design to identify which factors affect procurement effectiveness by selecting the more representative sample for the population of the study. The researcher has used explanatory design to conduct the study. This is because, explanatory study is helpful when a researcher needs to look into a phenomenon or a process in its natural contexts in order to get its overall picture instead of taking one or some of its aspects and manipulating in an artificial setting. In addition, it is used to

understand the condition or relationship that exists, opinion that held, process going on, and effects that are evident. Moreover, in order to achieve the intended objectives, both quantitative and qualitative methods were employed.

3.4. Data Type and Source

There are two types of data, namely primary and secondary data. Researcher might use either both or one of the types of data depending on the research type and data collect by researcher (Saunders *et.al.*, 2007). In this research primary data was collected through standardize questionnaire. For secondary data, books, manuals, directives, proclamation, annual reports and articles related to procurement activities were used. This data would serve as reference and guide the focus of research question.

3.5. Methods of Data Collection

The primary data for this study was obtained from questionnaires distributed to employee selected from public sectors. The study also applied Internet materials and documents for the purpose of getting additional information about procurement effectiveness. The data was collected from sample respondents through conducting questionnaires, for quantitative part by using open ended and closed ended questions. In this study data collection instruments are questionnaires

3.6. Study Population

In Oromia Regional State, there are 21 zones and 304woredas are there out of these Asela, Adama, Bishoftu, Ziway(Batu), Shashemene and Lagatafo Lagadadi Town and City Administration Finance sector are selected using homogeneous purposive method. Totally the number of population (employees) in the selected sectors in these Town and City Administration Finance sector were targeted population. These Towns and City Administrations were considered purposively in this research level because they use lion share of annual budget allocated for Oromia regional state of the procurement purposes.

3.7. Sampling Technique and Sample Size

Determining sample size that represents the characteristic of the population is very significant for the researcher. But this is not always perfect to represent the attributes of the population as there might be error by sampling frame, or data collection.

The study selected a sample of employee in selected Oromia town and City administration public finance sector; Sample size determination is not an easy task since it is affected by several factors. Sample size for instance, depends on the type of research design, the desired level of confidence, population characteristics, cost and time availability (Cohen *et al.*, 2007). Due to the similarity of the population and to keep the representativeness of the sample of the population, the researcher used the formula illustrated by Yamane (1967), to determine the total sample size.

Mathematically, the formula is presented as: (Yamane 1967)

$$n = \frac{N}{1 + N(e)^2}$$

where n stands for the sample size, N signifies the total number of employees in all the public sector, e designates maximum variability which is 5% (0.05), and 1 stand for the probability of the event occurring.

$$n = \frac{349}{1+349(0.05)^2} = 186$$

which resulted in a total of 186 participants.

In the determination of the sample size, 95% confidence level and p value of 0.05 for maximum variability were assumed.

Therefore, the study was based on a survey data collected from 186 employees in selected Oromia town and city administration finance sector. Thus, simple random sampling technique was used to reach at the aforementioned sample size from the exhaustive list of the target population.

Table 3.1 sample size determination

No	Total population (N)	Sector		
		population (Ni)	$Ni=n.Ni/N$	Ni
1	Adama city Administration Finance sector	73	$73*186/349$	39
2	Asela town Finance sector	47	$47*186/349$	25
3	Legatafo town Finance sector	50	$50*186/349$	26
4	Shashemene city Administration Finance sector	67	$67*186/349$	36
5	Ziway/ Batu/ town Finance sector	52	$52*186/349$	28
6	Bishoftu City Administration Finance sector	60	$60*186/349$	32
Total		349		N=186

Source: Oromia town and City administration human resource report

3.8. Methods of Data Analysis

In this study the findings were interpreted by quantitative and qualitative methods. The quantitative data obtained from questionnaires was analysed using descriptive statistics. According to Kothari (2008), such as frequencies percentages, means and standard deviations. The final analysis of the quantitative data was done using Statistical Package for Social Sciences (SPSS), version twenty-six, data management and STATA software after the coded responses to the questionnaires were entered into computer. Moreover, explanatory design was employed to identify significant factors that affect procurement effectiveness.

3.9. Model Specification

The study would also employ econometric modelling to demonstrate the magnitude and economic significance of factors affecting procurement effectiveness

It is important to present the detailed model specification for the ordered outcome variable. The ordinal outcomes represent categorical outcomes where there is clear natural ranking or order from low to high among the outcomes but the distance between adjacent categories is unknown. When modeling these types of outcomes, numerical values are assigned to the outcomes, but the numerical values are ordinal and reflect only the ranking of the outcomes. As an example, we might assign a dependent variable y the

values 1 for "strongly disagree", 2 for "disagree", 3 for "neutral", 4 for "agree" and 5 for "strongly agree".

Consider the generic population regression function given by:

$$y_i^* = \mathbf{x}_i\beta + \varepsilon_i$$

If the latent variable y^* denotes a natural ordering among the possible outcomes, then the observed the dependent variable can assume a data generating process of the following type.

$$y = \begin{cases} 1 = \text{strongly disagree} & \text{if } y_i^* \leq \mu_1 \\ 2 = \text{disagree} & \text{if } \mu_1 < y_i^* \leq \mu_2 \\ 3 = \text{neutral} & \text{if } \mu_2 < y_i^* \leq \mu_3 \\ 4 = \text{agree} & \text{if } \mu_3 < y_i^* \leq \mu_4 \\ 5 = \text{strongly agree} & \text{if } y_i^* > \mu_4 \end{cases}$$

where y_i is the observed scores for the dependent variable that are given numerical values as follows: 1 for "strongly disagree", 2 for "disagree", 3 for "neutral", 4 for "agree" and 5 for "strongly agree"; y_i^* is the unobservable value of the dependent variable, \mathbf{X}_i is a vector of variables that explains the variation in the observed dependent variable; β is a vector of coefficients; μ_i are the threshold parameters to be estimated along with β ; and ε_i is a disturbance term that is assumed normally distributed. These threshold parameters, which usually must be estimated, determine how the values of y_i^* to get translated into the five possible values of y_i .

The probability that $y_i = 1$ is presented as

$$\begin{aligned} \Pr(y_i = 1) &= \Pr(y_i^* \leq \mu_1) = \Pr(\mathbf{x}_i\beta + \varepsilon_i \leq \mu_1) \\ &= \Pr(\varepsilon_i \leq \mu_1 - \mathbf{x}_i\beta) = \Phi(\mu_1 - \mathbf{x}_i\beta) \end{aligned}$$

The probability that $y_i = 2$ is presented as

$$\begin{aligned} \Pr(y_i = 2) &= \Pr(\mu_1 < y_i^* \leq \mu_2) = \Pr(\mu_1 < \mathbf{x}_i\beta + \varepsilon_i) \times \Pr(\mathbf{x}_i\beta + \varepsilon_i \leq \mu_2) \\ &= \Pr(\varepsilon_i < \mathbf{x}_i\beta - \mu_1) \times \Pr(\varepsilon_i \leq \mu_2 - \mathbf{x}_i\beta) \\ &= \Phi(\mu_2 - \mathbf{x}_i\beta) - \Phi(\mu_1 - \mathbf{x}_i\beta) \end{aligned}$$

The probability that $y_i = 3$ is presented as

$$\begin{aligned}\Pr(y_i = 3) &= \Pr(\mu_2 < y_i^* \leq \mu_3) = \Pr(\mu_2 < \mathbf{x}_i\beta + \varepsilon_i) \times \Pr(\mathbf{x}_i\beta + \varepsilon_i \leq \mu_3) \\ &= \Pr(\varepsilon_i < \mathbf{x}_i\beta - \mu_2) \times \Pr(\varepsilon_i \leq \mu_3 - \mathbf{x}_i\beta) \\ &= \Phi(\mu_3 - \mathbf{x}_i\beta) - \Phi(\mu_2 - \mathbf{x}_i\beta)\end{aligned}$$

The probability that $y_i = 4$ is presented as

$$\begin{aligned}\Pr(y_i = 4) &= \Pr(\mu_3 < y_i^* \leq \mu_4) = \Pr(\mu_3 < \mathbf{x}_i\beta + \varepsilon_i) \times \Pr(\mathbf{x}_i\beta + \varepsilon_i \leq \mu_4) \\ &= \Pr(\varepsilon_i < \mathbf{x}_i\beta - \mu_3) \times \Pr(\varepsilon_i \leq \mu_4 - \mathbf{x}_i\beta) \\ &= \Phi(\mu_4 - \mathbf{x}_i\beta) - \Phi(\mu_3 - \mathbf{x}_i\beta)\end{aligned}$$

The probability that $y_i = 5$ is presented as

$$\begin{aligned}\Pr(y_i = 5) &= \Pr(y_i^* > \mu_4) = \Pr(\mathbf{x}_i\beta + \varepsilon_i > \mu_4) \\ &= \Pr(\varepsilon_i > \mu_4 - \mathbf{x}_i\beta) = 1 - \Phi(\mu_4 - \mathbf{x}_i\beta)\end{aligned}$$

Using these probability outcomes, we can add up all of them to obtain the likelihood function for maximum likelihood estimation. From there, the log-likelihood function for final estimation can be composed as

$$L = \Pr(y_i = 1) \times \Pr(y_i = 2) \times \Pr(y_i = 3) \times \Pr(y_i = 4) \times \Pr(y_i = 5)$$

$$\ln L = \ln[\Pr(y_i = 1)] + \ln[\Pr(y_i = 2)] + \ln[\Pr(y_i = 3)] + \ln[\Pr(y_i = 4)] + \ln[\Pr(y_i = 5)]$$

This gives rise to

$$\begin{aligned}\ln L &= \sum_{y_i=1} \ln[\Phi(\mu_1 - \mathbf{x}_i\beta)] + \sum_{y_i=2} \ln[\Phi(\mu_2 - \mathbf{x}_i\beta) - \Phi(\mu_1 - \mathbf{x}_i\beta)] + \sum_{y_i=3} \ln[\Phi(\mu_3 - \mathbf{x}_i\beta) - \Phi(\mu_2 - \mathbf{x}_i\beta)] \\ &+ \sum_{y_i=4} \ln[\Phi(\mu_4 - \mathbf{x}_i\beta) - \Phi(\mu_3 - \mathbf{x}_i\beta)] + \sum_{y_i=5} \ln[1 - \Phi(\mu_4 - \mathbf{x}_i\beta)]\end{aligned}$$

Thus, it enabled the researcher to determine the priority of each procurement effectiveness. Therefore, econometrically the ordered logit model was used which is presented below in a generic form:

$$Y_i = \alpha + \beta i X_i + \varepsilon_i$$

Where Y_i represents procurement effectiveness in sector i of the selected Oromia Town and City administration Finance office; X_i is the several factors determining the procurement; ε_i is the model error term that could capture all unobserved factors; β is the model parameters and α is the constant term.

3.10. Study Variables

In this subsection of the study, variables are described and their measurement and expected effect of independent variables on dependent variables were summarized.

A. Dependent Variable

The dependent variable is procurement effectiveness.

Public Procurement: -is the process of acquisition, usually by means of contractual arrangements after the public competition, of goods, services, works and other supplies by the public entity. Public Procurement was measured using likert scale of measurement based on the given statement using 1= if the perception of employees is strongly disagree, 2= if the perception of employees is disagree, 3= if the perception of employees is neutral, 4= if the perception of employees is agree, 5= if the perception of employees is strongly agree.

B. Independent Variables

Procurement Procedures: - are operating instructions detailing functional duties or tasks.

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. Procurement Procedures were measured using likert scale of measurement based on the given statement using 1= if the perception of employees is strongly disagree, 2= if the perception of employees is disagree, 3= if the perception of employees is neutral, 4= if the perception of employees is agree, 5= if the perception of employees is strongly agree.

Resource Allocation: Resource allocation is the process of determining the best way to use accessible assets or resources in the execution of a given project. Companies try to

allocate resources by reducing costs and maximizing profits using strategic planning methods, operational guidelines and implement policies and procedures that move the business toward the achievement of its goals (Shantanu et al., 2012). Resource allocation begins at strategic planning when a company formulates its vision, mission and goals for the future. Most of the public entities lack of clear accountability on how the resources provided impact on their performance therefore going against the fundamental principles of public procurement, Ouma Danis et al, (2014). Tangible resources are assets that can be seen and quantified such as production equipment, manufacturing plants, and formal reporting structures. Intangible resources like assets that typically are rooted deeply in the firm’s history and have accumulated over time (Michael and Hoskisson, 2007). Resource allocation was measured using likert scale of measurement based on the given statement using 1= if the perception of employees is strongly disagree, 2= if the perception of employees is disagree, 3= if the perception of employees is neutral, 4= if the perception of employees is agree, 5= if the perception of employees is strongly agree.

Staff Competency: -It involves the ability or know how about to perform the functions of the job that includes industry knowledge, background and expertise; interpersonal or skills required to get along effectively efficiently with others include such things as the ability to listen correctly or non-defensively, and team work and customer service skill. Staff competency was measured using likert scale of measurement based on the given statement using 1= if the perception of employees is strongly disagree, 2= if the perception of employees is disagree, 3= if the perception of employees is neutral, 4= if the perception of employees is agree, 5= if the perception of employees is strongly agree.

Table3.2. Summary of Variables Measurement and expected effect with dependent variables

Variables	Description of variables	Measurement	Expected sign
Procurement procedures	Procurement Planning, Management support, Budgetary allocation, Procurement progress reports, Procurement records management, Procurement management	Ordinal/likert scale	+

Variables	Description of variables	Measurement	Expected sign
Procurement planning	Preparation of Annual Procurement Plans, evaluating team of the prepared plan, Reviews of the procurement system, standard of procurement plan and Qualification of staff participating in procurement planning.	Ordinal/likert scale	+
Resource allocation	Budget review, Tender float, Tender award and others	Ordinal/likert scale	+
Staff Competency	Disposal Service the procurement activity ability of public procurement principles and evaluate bidding document, negotiate with users and suppliers, handle complex and strategic procurement items, understanding users need market environment and supplier's capacity	Ordinal/likert scale	+

3.11. Reliability and Validity

Validity means the accuracy of measurement of which the data is planned to be measured and how truthful the results of the research are (Patti and Ariccia, 2004). Sequentially to improve reliability and validity of measures in the study, the researcher adopted suitable procedures starting from the data collation up to the last analysis. First, the questionnaire was developed as per the research objectives and research questions. After the questionnaire was developed, it was translated into Amaharic language in order to make the items compatible with the participants and to assure the translation validity the language teacher was invited to read and give correction on questions. After that the survey questionnaire was pretested on five respondents before it distributed to the target respondents (clients). Data from the respondents were collected by the researcher himself through survey questionnaires presented to the respondents. Additionally, scientific articles, journals and books were used to assurance the reliability and validity of the data. The largest part is statistical analysis tools like correlation and regression in SPSS computer program used to analyze the gained data in order to increase the validity.

Field (2009) explained reliability as a means that measure (in this case questionnaire) should constantly reflect the construct that it is measuring. Reliability refers to the consistency and stability of findings that enables findings to be replicated” (Burns, 2008). Cranach’s Alpha is very useful in developing attitude scales and questionnaires as the

alpha level (or reliability) indicates if the items are measuring the same construct. Items that are not measuring what the rest are can be identified and deleted” (Burns, 2008). Cronach’s Alpha Should over 0.70 to produce a reliable scale and any scale less than this alpha coefficient should be eliminated according to Burns (2008).

Table 3.3. Reliability Statistics

Variables	Cronbach's Alpha	N of Items
All	0.971	44
Procurement plan	0.909	8
Staff competency	0.931	9
Procurement procedure	0.869	5
Resource allocation	0.944	9

Source: own survey result 2021

3.12. Ethical Considerations

In the process of conducting any research, a researcher has the responsibility to be ethical to their profession as well as to the participants of their study. In order to ensure smooth accomplishment of the research objectives, researchers have to adhere to the various ethical principles. Therefore, to ensure the safe conduct of the study as indicated above, letters of support and cooperation would be secured from the university and submitted to the study district administration. The researcher assures the participants that the information to be gathered was never be used for other purposes rather than for the particular study. The researcher was secure permission from all participants and maintain consensus with them. Addressing all the above-mentioned ethical concerns established friendly relationships with all participants which in turn will contribute to eliciting credible, necessary and adequate data from the participants.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1. Descriptive Statistics and Discussion

In this study, to examine the factors affecting procurement effectiveness, a sample of 186 employees were taken from selected Oromia town and City administration finance public sector questionnaires were distributed for those randomly chosen employees from the sample frame. However, while checking for completeness of questionnaires 167 or 89% have been found complete face to face with questionnaires and which makes challenging data gathering through interview or face to face communication.

4.1.1. Background of Respondent

Observing the demographic trend or characteristics of sample population before starting the data analysis is useful to make the analysis more meaning full for the reader. This part of the questionnaire requested limited amount of information related to personal and demographic status of the respondent. The purpose of demographic analysis in this research is to describe the characteristics of the sample such as the number of respondents, range of age, proportion of males and females in the sample and experience. Accordingly, these variables were summarized and described in table 4.1 below. As result regarding to the position of respondent 7.7% of respondent were head of the sector, 1.79% of respondent were junior head of the sectors, 20.95% of respondent were management member and 69.5% Senior staff member of the sectors. This is good enough to get reliable information about the public procurement. Regarding to the educational status of respondent 3.6% of respondent have Certificate, 15.6% of respondent were have Diploma, 77.8% of respondent were BSc/BA Degree holder and 3% of respondent were have MSc. /MA and above. The result indicates that the evidence collected from the sample selected have no knowledge gaps to understand the issue of public procurement and its components. Regarding to Marital status of respondent 6.6% of respondent were Never married, 90.4% of respondent were Married, 0.6% of respondent were Divorced and 2.4% of respondent were Widowed. Regarding to the Experience of respondent 16.76% of respondent have experience of 0-6 year, 28.1% of respondent have 7–12-year experience, 31.73% of respondent have 13–22-year experience and 23% of respondent were have below 6 and above 22 years'

experience. This is also good indicators to get reliable evidence about the study, since most of respondent have 13-22year experience.

Table 4.1: Respondent background profile

Variables	Category	Frequency	Percent
Position	Head	13	7.7
	Junior head	3	1.79
	management member	35	20.95
	Senior. member	116	69.5
Education status	Certificate	6	3.6
	Diploma	26	15.6
	BSc/BA Degree	130	77.8
	MSc. /MA and above	5	3.0
Marital status	Never married	11	6.6
	Married	151	90.4
	Divorced	1	.6
	Widowed	4	2.4
Experience	0-6 year	28	16.76
	7-12 year	47	28.1
	13-22 year	53	31.73
	above 22years	39	23

Source: own survey result 2021

In this subsection of the study the back ground of respondent were analyzed in as shown in table 4.1 above, here as the graphically displayed below the study reports which gender of respondent. As a result, indicated in graph below the bar graph for male respondent was longer than female bar graphs. This indicates that most of survey respondent was male respondent.

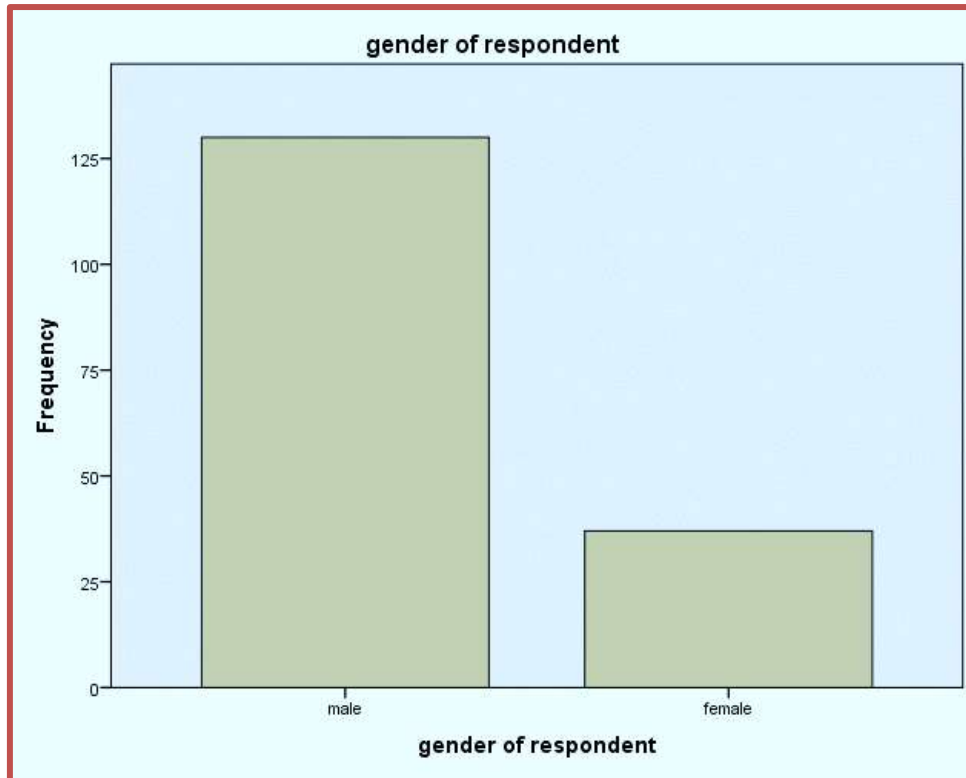


Figure 4.1. Bar graph display for gender of respondent

Source: own survey result, 2021

4.1.2. Descriptive Measure of Factors that Affect Procurement effectiveness

4.1.2.1 Procurement plan

In this subsection of the study descriptive summary of procurement plan was analyzed, as a result procurement plan regarding to the preparation of annual procurement plan is adequate and clear enough 1.8% of respondent was strongly disagree, 16.8% of respondent were disagree, 16.8% of respondent were neutral, 47.9% of respondents were agree and 16.8% of respondent were strongly agree on the statement with mean of 3.61 and standard deviation of 1.011. This finding replied that the mean value over the medium scale of Likert, it revealed that procurement plan regarding to the Preparation of Annual Procurement Plan is adequate and clear enough. Procurement plan regarding to the frequency of sector Formulate Procurement Plans 0.6% of respondents were strongly disagree, 22.8% of respondent were disagree, 18.6% of respondent were neutral, 46.1% of respondent agree and 12% of respondent were strongly agree on the statement with mean of 3.46 and standard deviation of 0.992. The finding indicates that frequency of formulating procurement plan is medium since the value of statistics implies that the mean was lied around the medium scale of likert.

Procurement plan regarding to Formulation of the procurement plans in the department of sector is good enough 0.6% of respondent were replied Strongly disagree, 49.1% of respondent were disagree, 17.4% of respondent were neutral, 25.7% of respondent were agree and 7.2% of respondent were replied strongly agree on the statement with mean of 2.90 and standard deviation of 1.028. procurement plan regarding Frequently sector Evaluating team of the prepared plan evaluate the plan 1.8% of respondent were strongly disagree, 44.3% of respondent was disagree, 13.8% of respondent was neutral, 32.3% of respondent were agree and 7.8% of respondent were strongly agree on the statement with mean and standard deviation of 3.01 and 1.067 respectively. this replies that the sector evaluating team of the prepared plan evaluate the plan at the frequency of medium level. Procurement plan regarding to reviews of the procurement system are done at regular intervals 2.4% of respondent were strongly disagree, 47.9% of respondent were disagree, 18% of respondent were neither agree nor disagree, 24% of respondent were agree and 7.8% of respondent were strongly agree on the statement with mean and standard deviation of 2.87 and 1.056 respectively. This indicates that Reviews of the procurement system was not done at regular intervals since the mean score was below the medium of likert scale.

Procurement plan regarding to the sector clear procurement planning policy and procedure 4.8% of respondent were strongly disagree, 40.7% of respondent were disagree, 14.4% of respondents were neutral, 27.5% of respondent were agree 12.6% strongly agree with mean and standard deviation of 3.02 and 1.177 respectively. This implies that Procurement plan regarding to the sector clear procurement planning policy and procedure was at medium level, since the mean score lies exactly at medium level.

Procurement plan regarding to the sector standard of procurement plan for all projects 4.8% of respondents were strongly disagree, 33.5% of respondent were disagree, 21.6% of respondent were neither agree nor disagree, 32.3% of respondent were agree and 7.6% of respondent were strongly agree on the statement with mean and standard deviation of 3.04 and 1.072 respectively. The finding reveals that the standard of procurement plan for all projects in the sector was at medium level, since the mean score of the likert scale lies at the medium. Procurement plan regarding to the qualification of staff participant in procurement planning of sector 5.4% of respondent were strongly disagree, 41.9% of respondent were disagree, 20.4% of respondent were neutral 25.1% of respondent were agree and 7.2% of respondent were strongly agree.

Based on survey finding, the finding reveals that staff participating in procurement plan were not that much qualified since the mean score on the statement was lied below the medium of likert scale. For more figure implication with frequency see the table 4.2 shown below.

Table4.2. Descriptive measure of procurement plan

Statement		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Sd.
Preparation of annual procurement plans is adequate and clear enough	Fr.	3	28	28	80	28	3.61	1.011
	Pr.	1.8	16.8	16.8	47.9	16.8		
Always sector formulate procurement plans	Fr.	1	38	31	77	20	3.46	.992
	Pr.	0.6	22.8	18.6	46.1	12		
Formulation of the procurement plans in the department of sector is good enough	Fr.	1	82	29	43	12	2.90	1.028
	Pr.	0.6	49.1	17.4	25.7	7.2		
Frequently the sector Evaluating team of the prepared plan evaluate the plan	Fr.	2	74	23	54	13	3.01	1.067
	Pr.	1.8	44.3	13.8	32.3	7.8		
Reviews of the procurement system are done at regular intervals	Fr.	4	80	30	40	13	2.87	1.056
	Pr.	2.4	47.9	18	24	7.8		
The sector has a clear procurement planning policy and procedure.	Fr.	8	68	24	46	21	3.02	1.177
	Pr.	4.8	40.7	14.4	27.5	12.6		
The sector makes standard procurement plan for all projects.	Fr.	8	56	36	54	13	3.04	1.072
	Pr.	4.8	33.5	21.6	32.3	7.6		
The sector uses qualified staff participating in procurement planning.	Fr.	9	70	34	42	12	2.87	1.079
	Pr.	5.4	41.9	20.4	25.1	7.2		

Source: own survey result 2021

4.1.2.2 Procurement Staff Competency

In this subsection the descriptive summary of Procurement Staff Competency was analyzed, as a result in Public Procurement and Property Disposal Service the procurement activity is conducted by competent procurement staffs 4.8% of respondent were strongly disagree, 38.9% of respondent were disagree, 19.8% of respondent were neutral, 29.3% of respondent were agree and 7.2% of respondent were strongly agree on the statement with mean and standard deviation of 2.95 and 1.080 respectively. This reveals that in public procurement and property disposal Service the procurement activity is conducted by procurement staffs not enough competent since the mean score likert scale is below medium

Regarding to the procurement staffs have ability to apply public procurement principles and evaluate bidding document 4.2% of respondent were strongly disagree, 40.1% of respondents were disagree, 21% of respondent were neutral 25.1% of respondent were agree and 9.6% of respondent were strongly agree on the statement with mean & standard deviation of 2.96 and 1.100 respectively. The finding tells that the procurement staffs have problem of ability to apply public procurement principles and evaluate bidding document since the mean score of the statement based on the likert scale lies below the medium. Regarding to the Procurement staffs have the ability to negotiate with users and suppliers 1.8% of respondent were strongly disagree, 37.7% of respondent were disagree, 20.4% of respondent were neutral 31.1% of respondent were agree and 9% of respondent were strongly agree on the statement with the mean and standard deviation of 3.081 and 0.058 respectively. The finding implies that the procurement staffs have the ability to negotiate with users and suppliers is enough since the mean score of the statement based on the likert scale was over the medium level. Regarding to the Public Procurement and Property Disposal Service procurement staffs have the necessary skills and competence to handle complex and strategic procurement items 3.6% of respondent were strongly disagree, 43.7% of respondent were disagree, 23.4% of respondent were neither agree nor disagree, 23.4% of respondent were agree and 6% of respondent were strongly agree on the statement with the mean of 2.84 and standard deviation of 1.018. the finding indicates that procurement staffs have no enough the necessary skills and competence Public Procurement and Property Disposal Service of handling complex and strategic procurement items, since the mean score is below the medium level of likert scale.

Regarding to the Procurement staff's ability to understand users need market environment and supplier's capacity 3.6% of respondent were strongly disagree, 43.1% of respondent were disagree, 21% of respondent were neutral, 24.6% of respondent were agree and 7.8% of respondent strongly agree on the statement with mean of 2.91 and standard deviation of 1.055. the finding indicates that the ability of procurement staff to understand users need market environment and supplier's capacity was low, since the average score of the statement based on likert scale was lies below the medium. Regarding to the procurement staff of sector have enough skills and experience to carry out procurements effectively 4.8% of respondent replies strongly agree, 40.1% of respondent were disagree, 22.2% of respondent were neutral, 22.2% of respondent were agree and 10.8% of respondent were strongly agree on the statement with mean of 2.94 and standard deviation of 1.118. This reveals that procurement staff of the sector have no have enough skills and experience to carry out procurements effectively since average score on the statement lies below the medium scale of likert. Regarding to the competence of procurement staff of sector are effective, efficient 4.8% of respondent were strongly disagree, 40.1% of respondent were disagree, 22.2% of respondent were neutral, 22.2% of respondent were agree and 10.8% of respondent were strongly agree on the statement with mean of 2.88 and standard deviation of 1.078.

Regarding to the Procurement staff of sector provide solutions to the procurement problem 4.2% of respondent were strongly disagree, 41.3% of respondent were disagree, 21.6% of respondent were neutral 25.1% of respondent were agree, 7.8% of respondent were strongly agree with mean of 1.069 and standard deviation of 2.91. Regarding to the training for procurement staff to improve knowledge, skills and experience of them were taken frequently 12% of respondent were strongly disagree, 44.9% of respondent were disagree, 23.4% of respondent were neutral, 16.2% of respondent were agree and 3.6% of respondent were strongly agree on the statement with mean of 2.54 and standard deviation of 1.016. Moreover, the ability of Procurement staffs to negotiate with users and suppliers score enough effective and solutions have provided by procurement staff of the sector to the procurement problems was not effective and relatively have least performed.

Table 4.3. Descriptive Measure of Procurement Staff Competency

Statement		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Sd.
In Public Procurement and Property Disposal Service the procurement activity is conducted by competent procurement staffs	Fr.	8	65	33	49	12	2.95	1.080
	Pr.	4.8	38.9	19.8	29.3	7.2		
Procurement staffs have ability to apply public procurement principles and evaluate bidding document	Fr.	7	67	35	42	16	2.96	1.100
	Pr.	4.2	40.1	21	25.1	9.6		
Procurement staffs have the ability to negotiate with users and suppliers	Fr.	3	63	34	52	15	3.08	1.058
	Pr.	1.8	37.7	20.4	31.1	9		
Public Procurement and Property Disposal Service procurement staffs have the necessary skills and competence to handle complex and strategic procurement items	Fr.	6	73	39	39	10	2.84	1.018
	Pr.	3.6	43.7	23.4	23.4	6		
Procurement staffs have the ability to understand users need market environment and supplier's capacity	Fr.	6	72	35	41	13	2.91	1.055
	Pr.	3.6	43.1	21	24.6	7.8		
The procurement staff of your sector have enough skills and experience to carry out procurements effectively	Fr.	8	67	37	37	18	2.94	1.118
	Pr.	4.8	40.1	22.2	22.2	10.8		
Competence of procurement staff of your sector are effective, efficient	Fr.	8	67	37	37	18	2.88	1.078
	Pr.	4.8	40.1	22.2	22.2	10.8		
Procurement staff of your sector provide solutions to the procurement problems	Fr.	7	69	36	42	13	1.069	2.91
	Pr.	4.2	41.3	21.6	25.1	7.8		
Training for procurement staff to improve knowledge, skills and experience of them were taken frequently	Fr.	20	75	39	27	6	2.54	1.016
	Pr.	12	44.9	23.4	16.2	3.6		

Source: own survey result 2021

4.1.2.3 Procurement Procedures

In this subsection of the study the descriptive summary of procurement procedure was analyzed, as a result tender evaluation conducted according to predetermined set criteria in the bid document 1.2% of respondent were strongly disagree, 30.5% of

respondent were disagree, 18.6% of respondent were neutral, 34.7% of respondent were agree, 15% of respondent were strongly agree with mean of 3.32 and standard deviation 1.098. Contract management is conducted according to the bidding and contract document terms and condition 1.8% of respondent were strongly disagree, 40.7% of respondent were disagree ,19.2% of respondent was neither agree nor disagree, 29.3% of respondent were agree and 9% of respondent were strongly agree with mean of 3.03 and standard deviation of 1.067. In Public Procurement and Property Disposal Service procured items are tested and inspected accordingly at the time of delivery 4.2% of respondent were strongly disagree, 49.1% of respondent were disagree, 21% of respondent were neutral, 19.8% of respondent were agree, 6% of respondent were strongly agree with mean of 2.74 and 1.018. In Public Procurement and Property Disposal Service bidder's complaint is handled without bureaucratic system 4.8% of respondent were strongly disagree, 41.9% of respondent were disagree, 26.9% of respondent were neither neutral, 21% of respondent were agree, 5.4% of respondent were strongly agree with mean of 2.80 and standard deviation of 1.001. regarding to the Public Procurement and Property Disposal Service procurement performance is adequately monitor/evaluate 7.2% of respondent were strongly disagree, 38.3% of respondent were disagree, 26.3% of respondent were neutral 20.4% of respondent were agree 7.8% of respondent were strongly disagree with mean of 2.82 and standard deviation of 1.069. In generally procurement procedure regarding to the tender evaluation conduct according to predetermined set criteria in the bid document was implemented in effective level and testing and inspecting public procurement and Property Disposal Service procured items accordingly at the time of delivery was not effective and relatively have least performed.

Table4.4. Descriptive summary of Procurement procedures

Statement		Strongly disagree	disagree	Neutral	Agree	Strongly agree	Mean	Sd.
Tender evaluation conducted according to predetermined set criteria in the bid document	Fr.	2	51	31	58	25	3.32	1.098
	Pr.	1.2	30.5	18.6	34.7	15		
Contract management is conducted according to the bidding and contract document terms and condition	Fr.	3	68	32	49	15	3.03	1.067
	Pr.	1.8	40.7	19.2	29.3	9		
In Public Procurement and Property Disposal Service procured items are tested and inspected accordingly at the time of delivery	Fr.	7	82	35	33	10	2.74	1.018
	Pr.	4.2	49.1	21	19.8	6		
In Public Procurement and Property Disposal Service bidder's complaint is handled without bureaucratic system	Fr.	8	70	45	35	9	2.80	1.001
	Pr.	4.8	41.9	26.9	21	5.4		
In Public Procurement and Property Disposal Service procurement performance is adequately monitor/evaluate	Fr.	12	64	44	34	13	2.82	1.069
	Pr.	7.2	38.3	26.3	20.4	7.8		

Source: own survey result 2021

4.1.2.4 Resource Allocation

In this section of the study resource allocation for procurement was analyzed as a result sector budget was reviewed to cater for changes in the economic environment 1.8% of respondent were strongly disagree, 35.3% of respondent were disagree, 31.1% of respondent were neutral, 23.4% of respondent were agree and 8.4% of respondent were strongly agree on the statement with mean of 3.02 and standard deviation of 0.994. Tender float based on resource availability and confirmation 3% of respondent were strongly disagree, 34.1% of respondent were disagree, 28.7% of respondent were neutral, 26.9% of respondent were agree and 7.2% of respondent were strongly agree on the statement with of 3.01 and standard deviation of 1.012. Tender award based on resource availability and confirmation 1.8% of respondent were strongly disagree, 34.7% of respondent were disagree, 30.5% of respondent were neutral 25.1% of respondent were agree and 7.8% of respondent were strongly agree with mean of 3.01 and standard deviation of 1.00. generally, the finding indicates that resource allocation was at medium level not bad regarding to the sector budget was reviewed to cater for

changes in the economic environment, tender float based on resource availability and confirmation and tender award based on resource availability and confirmation.

Table4.5. Descriptive Measure of Resource Allocation

Statement		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Sd.
Your sector budget was reviewed to cater for changes in the economic environment	Fr.	3	59	52	39	14	3.01	1.000
	Pr.	1.8	35.3	31.1	23.4	8.4		
Tender float based on resource availability and confirmation	Fr.	5	57	48	45	12	3.01	1.012
	Pr.	3	34.1	28.7	26.9	7.2		
Tender award based on resource availability and confirmation	Fr.	3	58	51	42	13	3.02	.994
	Pr.	1.8	34.7	30.5	25.1	7.8		

Source: own survey result 2021

4.1.3. Descriptive Measure of effectiveness of Procurement

In this subsection of the study descriptive measure of effectiveness of procurement in the sector was analyzed as a result sector uses an organized list of Vendors 34.7% of respondent were disagree, 23.4% of respondent were neutral, 32.9% of respondent were agree and 9% of respondent were strongly agree on the statement with mean of 3.16 and standard deviation of 1.008. The finding implies that the list of Vendors used in the sector was an organized, since the mean score of the statement was over the medium scale of likert scale. Regarding to the sector has a clear vendor selection processes 2.4% of respondent were strongly disagree, 32.9% of respondent were disagree, 30.5% of respondent were neutral, 24% of respondent were agree and 10.2% of respondent were strongly agree. Regarding to the sector use qualified staffs participating in vendor selection processes 2.4% of respondent were strongly disagree, 41.9% of respondent were disagree, 18.6% niether agree nor disagree, 25.7% of respondent were agree, 11.4% of respondent were strongly agree on the statement. Regarding to the sector refers and considers past supplier performance during vendor selection processes 1.8% of respondent were strongly disagree, 35.9% of respondent

were agree, 22.8% of respondent were neutral, 32.3% of respondent was agree and 7.2% of respondent were strongly agree on the statement.

Regarding to the sector use quality as appropriate vendor selection criteria 2.4% of respondent were strongly disagree, 38.9% of respondent were disagree, 22.2% of respondent were neither agree nor disagree, 26.3% of respondent were agree and 10.2% of respondent were strongly agree on the statement.

Regarding to the evaluation of tenders is conducted transparently 3.6% of respondent were strongly disagree, 44.3% of respondent were disagree, 25.1% of respondent were neither neutral, 17.4% of respondent were agree and 9.6% of respondent were strongly agree on the statement. The vendor selection process complies with different donors' rule and regulation 1.8% of respondent were strongly disagree, 47.9% of respondent were disagree, 18% of respondent were neutral, 22.2% of respondent were agree 10.2% of respondent were strongly agree on the statement.

Regarding to Timely preparation of request for quotation for tender 4.2% of respondent were strongly disagree, 35.9% of respondent were disagree, 23.4% of respondent were neutral, 28.7% of respondent were agree and 7.8% of respondent were strongly agree on the statement.

Regarding to the Timely evaluation of bid documents. 4.2% of respondent were strongly disagree, 41.9% of respondent were disagree 24% of respondent were neutral, 22.2% of respondent were agree and 7.8% of respondent were strongly agree on the statement with mean of 2.87 and standard deviation of 1.054. Which the finding implies that evaluation time standard of bid document was not timely replies based on the mean score of the statement lies below the medium scale of likert.

Table 4.6. Descriptive Measure of effectiveness of Procurement

Statement		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Sd.
Your sector uses an organized list of Vendors.	Fr.	0	58	39	55	15	3.16	1.008
	Pr.	0	34.7	23.4	32.9	9		
The sector has a clear vendor selection process.	Fr.	4	55	51	40	17	3.08	1.027
	Pr.	2.4	32.9	30.5	24	10.2		
The sector uses qualified staffs participating in vendor selection processes.	Fr.	4	70	31	43	19	3.02	1.111
	Pr.	2.4	41.9	18.6	25.7	11.4		
The sector refers and considers past supplier performance during vendor selection processes.	Fr.	3	60	38	54	12	3.07	1.021
	Pr.	1.8	35.9	22.8	32.3	7.2		
The sector use quality as appropriate vendor selection criteria.	Fr.	4	65	37	44	17	3.03	1.078
	Pr.	2.4	38.9	22.2	26.3	10.2		
Evaluation of tenders is conducted transparently.	Fr.	6	74	42	29	16	2.85	1.062
	Pr.	3.6	44.3	25.1	17.4	9.6		
The vendor selection process complies with different donors' rule and regulation.	Fr.	3	80	30	37	17	2.92	1.079
	Pr.	1.8	47.9	18	22.2	10.2		
Timely preparation of request for quotation for tender.	Fr.	7	60	39	48	13	3.00	1.064
	Pr.	4.2	35.9	23.4	28.7	7.8		
Timely evaluation of bid documents.	Fr.	7	70	40	37	13	2.87	1.054
	Pr.	4.2	41.9	24	22.2	7.8		

Source: own survey result 2021

4.1.4. Overall Mean Score of Factors that Affect Procurement effectiveness

This subsection tells that the grand mean score of factors that affect procurement performance. The result indicates the average comparison of factors that affect procurement effectiveness, as a result the mean score of procurement plan was 3.10 with standard deviation of 0.830 which the highest score of grand mean and it reveals

that procurement performance regarding to the procurement plan was at effective and procurement performance regarding to procurement staff competence was relatively least with mean of 2.89 and standard deviation of 0.859. Procurement procedure and resource allocation were around medium level with mean score of 2.94 and standard deviation of 0.851, and mean score of 3.02 and standard deviation of 0.897 respectively. The finding implies that as the result indicates that procurement plan was potential applied in the sector of the study area

Table4.7. grand mean score of independent variables

Variables	Mean	Std. Deviation
Procurement plan	3.10	.830
Procurement staff competence	2.89	.859
Procurement procedure	2.94	.851
Resource allocation	3.02	.897

Source: own survey result 2021

4.2. Inferential Analysis

Here in this section the relation, effect and significance level of variables that affect procurement effectiveness was observed. First to observe at significance and relation the model assumption should was checked based on their respective diagnostic test.

4.2.1. Assumption of Ordered Logistic Regression

When choosing to analyze data using ordinal regression, part of the process involves checking to make sure that the data want to analyze can actually be analyzed using ordinal regression. needs to do this because it is only appropriate to use ordinal regression if data passes three assumptions that are required for ordinal regression to give a valid result. In practice, checking for these three assumptions just adds a little bit more time to analysis.

Assumption #1: dependent variable should be measured at the ordinal level. Therefore this study meets fits this assumption of the model since Likert scale was employed (i.e. 5-point scale from "strongly disagree" through to "strongly agree"),

Assumption #2: One or more independent variables that are continuous, ordinal or categorical (including dichotomous variables). However, ordinal independent variables must be treated as being either continuous or categorical. Therefore, the models fit this assumption since the study employed 4 categorical independent variables.

Assumption #3: There is no multicollinearity. Multicollinearity occurs when you have two or more independent variables that are highly correlated with each other. This leads to problems with understanding which variable contributes to the explanation of the dependent variable and technical issues in calculating an ordinal regression. Determining whether there is multicollinearity is an important step in ordinal regression. Unfortunately, testing for this assumption based on the result of VIF (variance inflation factors) and tolerance (O’Connell, 2006). Multicollinearity exists when Tolerance is below 0.1 and VIF (variance inflation factors) is greater than 10 or an average much greater than 1. No serial correlation among the explanatory variables and this means the association within the independent variables should be small enough so that it was easy to see the effect on the dependent variables. As the survey result shows, in table 4.8 below the highest VIF result was 3.017 and lowest tolerance level was 0.331 which implies that VIF below 10% and tolerance level greater than 0.1. The result indicates that there was no multicollinearity problem.

Table4.8. multicollinearity test statistics

Collinearity Statistics	
Tolerance	VIF
0.430	2.324
0.351	2.847
0.331	3.017
0.446	2.240

Source own survey result 2021

4.2.2. Ordered Logistic Regression Analysis

As the result of all assumption of diagnostic tests, indicates that the model fits the assumption and doesn’t violet the assumption. In this subsection of the study to see the significant factors and the effect of each factors on procurement effectiveness the

study employed the ordered logistic regression. As a result, more specifically the significant factors and there were analyzed in table 4.9. below.

Table4.9. ordered logistic regression

Iteration	0:	log likelihood	-			
			206.34864			
Iteration	1:	log likelihood	-	Number of obs		167
			128.52932			
Iteration	2:	log likelihood	-	LR chi2(4)		176.68
			118.34459			
Iteration	3:	log likelihood	-	Prob > chi2		0.0000
			118.01126			
Iteration	4:	log likelihood	-	Pseudo R2		0.4281
			118.01089			
Iteration	5:	log likelihood	-	Log likelihood		-118.01089
			118.01089			
Procurement effectiveness	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]	
Procurement plan	.4569375	0.2589381	1.76	0.078	-	.9644468
					0.0505719	
Procurement staff competence	1.208308	0.284615	4.25	0.000	0.6504728	1.766143
Procurement procedure	1.189592	0.2862887	4.16	0.000	0.6284763	1.750707
Resource allocation	0.7596196	0.2488813	3.05	0.002	0.2718212	1.247418
/cut1	9.634106	1.064997			7.546751	11.72146
/cut2	12.24961	1.275189			9.750288	14.74894
/cut3	16.18218	1.624383			12.99845	19.36591

Source own survey result 2021

In the output above, the first shown the iteration log. At iteration 0, Software fits a null model, i.e., the intercept-only model. It then moves on to fit the full model and stops the iteration process once the difference in log likelihood between successive iterations become sufficiently small. The final log likelihood (-118.01089) is displayed again. It can be used in comparisons of nested models. Also, at the top of the output that all 167 observations in the data set were used in the analysis. The likelihood ratio chi-square of 176.68 with a p-value of 0.0000 tells that model as a whole is statistically significant, as compared to the null model with no predictors. The pseudo-R-squared of 0.4281 is also given. In the table we see the coefficients, their standard errors, z-tests and their associated p-values, and the 95% confidence interval of the coefficients. Three of Procurement staff competence, Procurement procedure and Resource

allocation are statistically significant; procurement is not statistically significant at 5% significance level. So, for Procurement staff competence, it indicates that for a one unit increase in Procurement staff competence, results a 1.208 increase in the log odds of being in a procurement performance, given all of the other variables in the model are held constant. For a one unit increase in Procurement procedure, results a 1.189 increase in the log odds of being in a procurement performance, given that all of the other variables in the model are held constant. And a one unit increase in resource allocation, leads to a 0.759 increase in the log odds of being in a procurement performance, given that all of the other variables in the model are held constant.

Table4.10. ordered logistic regression proportional odds ratios

Procurement effectiveness	Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Procurement plan	1.57923	.4089229	1.76	0.078	.9506856	2.623336
Procurement staff competence	3.347815	.9528386	4.25	0.000	1.916447	5.848254
Procurement procedure	3.28574	.9406701	4.16	0.000	1.874752	5.758675
Resource allocation	2.137463	.5319745	3.05	0.002	1.312352	3.481342
/cut1	9.634106	1.064997			7.546751	11.72146
/cut2	12.24961	1.275189			9.750288	14.74894
/cut3	16.18218	1.624383			12.99845	19.36591

Source own survey result 2021

The above output is the coefficient parameters converted to proportional odds ratios and their 95% confidence intervals. The interpretation for such is for a one unit increase in procurement plan, the odds of moving from disagree to agree are 1.579 times greater, given that the other variables in the model are held constant.

The three most statistically significant variables have proportional odds ratios as (3.3478) procurement staff competence, (3.285) Procurement procedure and (2.137) Resource allocation. These reveals us if a one unit increase in procurement staff competence, the odds of moving from disagree to agree are (3.3478) times greater, given that the other variables in the model are held constant; if a one unit increase in Procurement procedure, the odds of moving from disagree to agree are 3.285 times greater, given that the other variables in the model are held constant” and if one unit

increase in Resource allocation, the odds of moving from Unsatisfied to Content or Satisfied are 2.137 times greater.

4.3. Discussion

As the indicated in the result subsection the significant factors that affect procurement effectiveness based on the survey result was identified. Here in this sub-section, detailed discussions of findings pertaining to specific determinants for procurement presented.

4.3.1 Specific Determinants of Procurement effectiveness

Procurement plan: - As per the ordered logit regression result presented in table 4.8, the coefficient of procurement plan variable was positive and insignificant at 5% significance level, as opposite of expected. Thus, implying that there is no significant relationship Procurement plan and procurement effectiveness at 5% significance level. The finding consists with the finding of Senait *et a.,l* (2016) and which implies that procurement plan has no significant effect to influence the procurement effectiveness.

Procurement Staff Competence: - The results of ordered logistic regression estimation in table 4.8 showed that the Procurement staff competence variable found to have a positive and significant relationship with the dependent variable of procurement effectiveness. In other word, Procurement staff competence variable had found significant influence on public procurement performance, implying that the expectation was true. The finding consists with the findings of senait *et al.*, (2016) Rebecca (2007) and Aradi(2019). This implies that as the Procurement staff competence improved results to raise the procurement effectiveness

Procurement Procedure: - Initially, Procurement procedure variable represented with procedure to implement the procurement is known to be influence the procurement performance. However, the ordered logistic regression results as presented in table 4.8 showed in similar manner that Procurement procedure variable found to have a significant positive impact on the dependent variable. The positive coefficient of Procurement procedure (with p-value of 0.000) was significant to influence procurement performance at 1% level of significance. This implies that if public practice one unit increase in Procurement procedure, the odds of moving from disagree

to agree are 3.285 times greater. The finding consists with the findings of senait *et al.*, (2016), Rebecca (2007) and Aradi(2019). This implies that as the Procurement procedure improved results to raise the procurement performance.

Resource Allocation: - Based on previous theoretical and empirical works, optimal Resource allocation was expected to be one of the most significant factors to procurement effectiveness. Similarly, the results of ordered logit model as presented in table 4.8 indicated that the coefficient of Resource allocation was positive as expected and statistically significant (with p-value of 0.000) to explain procurement performance. The finding constitutes with the findings of senait *et.al.*, (2016), Rebecca (2007) and Ardi(2019). This implies that as the Procurement procedure improved results to raise the procurement performance.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The primary objective of this study was to examine factors that affect procurement effectiveness in Selected Oromia National Regional state public sectors. More specifically the Study employed explanatory research design to examine the effect of procurement planning on procurement effectiveness, evaluate the effect of procurement staff competency on procurement effectiveness, examine the effect of procurement policy and procedure on procurement effectiveness, investigate the effect of procurement staff professional ethics on procurement effectiveness and examine the effect of resource allocation on procurement effectiveness. Besides, to get reliable result researcher employed primary data source through questionnaire. The total population used in this study was 349 and sample selected to distribute questionnaire was 186 employees in the study area. In this study the findings were interpreted by quantitative methods.

The quantitative data obtained from questionnaires was analyzed using both descriptive and inferential statistics. As an explanatory research design employed to infer the influential variable the study used ordered logistic regression model to identify the significant factor that affect procurement effectiveness. For the purpose of assessing the exploration in this study descriptive summary for both dependent and independent variable was assessed.

The results revealed that procurement effectiveness regarding to evaluation of tenders is conducting transparently was least performed and effectiveness of procurement in the sector uses an organized list of Vendors was success.

Regarding to factors that affect procurement effectiveness, the result indicated the average comparison of factors that affect procurement effectiveness, as a result the mean score of procurement plan was 3.10 with standard deviation of 0.830 which the highest score of grand mean and it reveals that procurement effectiveness regarding to the procurement plan was applied and procurement effectiveness regarding to procurement staff competence was relatively least with mean of 2.89 and standard deviation of 0.859.

Procurement procedure and resource allocation were around medium level with mean score of 2.94 and standard deviation of 0.851, and mean score of 3.02 and standard deviation of 0.897 respectively. The finding implies that procurement plan was potentially applied in the sector of the study area. However, based on the ordered logistic regression and proportion regression result three of the independent variables found positive and significant. As a result of ordered logistic regression estimation in table 4.8 showed that the Procurement staff competence variable found to have a positive and significant relationship with the dependent variable of procurement effectiveness. In other word, Procurement staff competence variable had found significant influence on public procurement effectiveness, implying that the expectation was true. Initially, Procurement procedure variable represented with procure to implement the procurement is known to be influence the procurement performance. However, the ordered logistic regression results as presented in table 4.8 showed in similar manner that Procurement procedure variable found to have a significant positive impact on the dependent variable. The positive coefficient of Procurement procedure (with p-value of 0.000) was significant to influence procurement performance at 1% level of significance. This implies that the public one unit increases in Procurement procedure, the odds of moving from disagree to agree are 3.285 times greater.

Based on previous theoretical and empirical works, optimal Resource allocation was expected to be one of the most significant factors to procurement performance. Similarly, the results of ordered logit model as presented in table 4.8 indicated that the coefficient of Resource allocation was positive as expected and statistically significant (with p-value of 0.000) to explain procurement effectiveness.

Finally, the finding implies that Procurement staff competence, Procurement procedure and Resource allocation had a general positive effect to determine procurement effectiveness. The main implication of this study was the need to Procurement staff competence, Procurement procedure and Resource allocation system systematically and logically and thereby moderate complexity to raise the procurement effectiveness.

Generally, the study implied that institutions and other stakeholders should take preferable technique to improve Procurement staff competence, Procurement procedure and Resource allocation to raise effectiveness of procurement by focusing

on the factors identified as more important procurement staff competence, procurement procedure and Resource allocation in this study.

5.2. Recommendation

Based on the finding of the study, the researcher forwarded the following basic recommendations:

- To improve knowledge, skills and experience of procurement staff, it is advisable that participating training in order to boost the skills and competency levels required by staffs involved in the procurement process and to become effective and efficient
- To improve procurement plan reviewing of the procurement system should be done at regular intervals
- In ordered to build up staff competence the sector should have to use qualified staff participating in procurement planning.
- In ordered to achieve sustainable improvement on procurement effectiveness Procurement staff of sector should focus to provide immediate solutions for the procurement problems
- To improve procurement procedure the procurement committee should have to assign testing and inspecting team in Public Procurement and Property Disposal Service procured items accordingly at the time of delivery
- Staff awareness through training should be carried out to achieve superior knowledge in entire procurement process in the sector.
- It is recommended that relevant staffs to procurement be involved in the process of plan preparation and participation.
- To improve on the public sector procurement performance the preparation of annual procurement plans should be participatory and frequently reviewed.
- In order to monitor the procurement process and improve procurement effectiveness the sector should have to put in place to practice the procurement procedures
- It is recommended that adequate resource be allocated and the resource frequently reviewed to fit with the changing environment in order to make the procurement performance more effective and efficient.

5.3. Future Research Direction

This research was conducted on factors affecting the public procurement effectiveness: evidence from selected public sectors in the study area. Such studies have to be conducted in selected public finance office organizations in the Oromia National regional state to bring about the effectiveness of procurement performance. This area is open for further study. The study was conducted on limited sample size and in limited study area. It would be better if more sample size was taken and if the study was conducted on larger study area. This is also open for further investigation. Further research should focus on those factors using trend of performance independently in institution level because some of those considered factors may have confounding problem to ignore such case conducting further study in different institution independently.

REFERENCE

- Adjei A. B., 2005. *What are we learning from different Approaches to Monitoring Capacity and Development? An Assessment Tool for Public Procurement System and its application to monitoring Capacity and Performance of the Procurement System in Ghana*. Accra, Ghana.
- Aketch, J., and Karanja, P., 2013. *Factors Influencing Procurement Performance in Constituency Development Fund (CDF): Case of CDF Use in Makadara Constituency*. .
- Amdework, H. & Aemiro, K. 2014 Modernizing public procurement and creating an independent public Procurement regulatory authority.
- 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/>
- Appiah, B., 2010. *Impact of Training on Employee Performance*. In unpublished thesis submitted to the Department of Armstrong. Inventory Control Can Help Reduce Waste.
- Aradi, W. , 2019. *Assessing Factor Affecting the public procurement practice a case of Shashamane Town public sector*”
- Arminas N. H. , 2006. Procurement issues in Malaysia. *International Journal of Public Sector Management*, 24(6):567-593.
- Armstrong M. and Baron., 1995. *Job Evaluation Handbook*. London. Institute of Personnel Development
- Asante, E. 2017. Factors affecting procurement performance in public sectors in Ghana: A case of Kintampo Municipal Assembly.
- Awiti 2008 and Odhiambo and Kamau 2003 analysis of the performance of several organizations' procurement departments
- Ayitey Francis Kotoka. , 2012 .*The implementation of the public procurement reform affects the performance of public entities*.

- Baily, P., Farmer, D. Jessop, D. & Jones, D., 2005. *Purchasing Principles and Management*, (9th Ed.) London: Prentice Hall.
- Banda, E., 2009. *Politics and Economic Consequences*. (1st Ed). Washington D.C.: Center for Study of Responsive Law.
- Basheka, B. C., and Mugabira, M. I., 2008. *Measuring Professionalism Variables and their Implication to Procurement Outcomes in Uganda*.
- Berger, E. & Humphrey, N., 2007. *Simple Buying Methods*. (1st. Ed.), Nairobi: East Africa Education Publishers.
- Betsy M., Kifle S. and Fiked T. R., 2015. Obstacles to public procurement reform in developing countries. In *Public Procurement*
- Bogdan, R.C., and Biklen, S.K., 2003. *Qualitative Research for Education: An introduction to Theory and Practice*, Alley and Bacon.
- Bohnstedt, A. 2008, *Procurement and supply in Kenya: the market for small and medium*
- Burt, N. D., Dobler, D. W., and Starling, S. L., 2004. *World Class Supply Management: The Key to Supply Chain Management* (7th ed.). New York: McGraw Hill.
- Businessdictionary(2011).Onlinebusinessdictionary<<<http://www.business.dictionary.com>>>
- Cohen et al., 2007. *Research Methods in Education*, 6th edi. New York: Routledge.
- Cole 2007, procurement may be referred to as the process whereby products are assessed at low prices.
- Cox A.,1999. "Power, Value and SCM". *Supply Chain Management*:
- Creswell, J.,2014. *Qualitative inquiry and research design*. Thousand Oaks, CA: Sage
- Donad K., 2006.The implementation of public procurement reform affect the performance of public entities.
- EFPPAA, 2009. *Ethiopian Public Procurement and Property Administration Agency Proclamation No 649 enterprises*, ECIA, Africa

- Eriksson, P. E. Westerberg, M., 2011. *Effects of cooperative procurement procedures on construction, project performance: A conceptual framework International Journal of project Management*
- European union., 2015. Effectiveness and efficiency on procurement is a means of future of public investment job evaluation hand book.
- Field, A. , 2009 . *Reliability Analysis. Introduction to descriptive statistic* (3rd Edition). London. Thousand Oaks
- Getnet Amdework, Tilahun A., 2014, Public Procurement Reform in Ethiopia:
- Giunipero, L., Handfield, R.B. and Eltantawy, R., 2006. *Supply Managements Evolution: key skill sets for the supply manager of the future”*
- Gizachew, A., 2012. "Efficiency, Accountability and Transparency in Public Procurement: The Level of Compliance in Africa (Ethiopian Case)
- Gordon, C., 2009. *Legislating against corruption in Southern African development.*
- Hagen, H.-O., Zeed, J., 2005, *Does Jet Use Matter for Firm Productivity?* Yearbook on Productivity 2005, Statistics Sweden, Stockholm
- Hall, J., 2009. Environmental supply chain dynamics. *Journal of Production and operation management*. Vol.44, No.9. pp. 143-147.
- Hines, T., 2006. *Supply Chain Strategies: customer-driven and customer focused”*, Butterworth-Heinemann
- James, U. V., 2004. *Public Policy and the African Environment: An Examination of the Theory and Practice of the Planning Process of the Continent* (A.K. ed). Ashagte, England.
- Japheth O., 2013. *Factors Affecting Procurement Performance: A Case of Ministry of Energy Department of Entrepreneurship Jomo Kenyatta University of Agriculture and Technology*, Nairobi – Kenya
- Jones, G. R, & George, J. M, 2013. *Contemporary Management”*, (6th Ed.). New York: McGraw-Hill.

- Juma, M. J., 2010. Lead from where you are: *Quarterly PPO Bulletin* (4)1. Nairobi: A publication of Non- Governmental Organizations Procurement Oversight Authority.
- Kabaj, O., 2003. *The Challenge of African Development*. Oxford, UK: Oxford University Press.
- Kalkwezi, D. and Nyeko, P.K.,2010. *Procurement processes and performance: Efficiency and Effectiveness of the procurement function*.
- Kim, M.K, K. K., Lopetcharat, K.K and M. A. Drake.,2013. *Influence of packaging information on consumer liking of chocolate milk*.
- Kinuthia, V. K., 2015. *Managing stakeholder relations in protracted crisis situations: a discourse analysis of corruption through the Goldenberg and Anglo-Leasing cases of Kenya* (Doctoral dissertation, University of Leeds).
- Kothari, C. R., 2008. *Research Methodology: Methods & Techniques*. (1st ed.). Nairobi: New Age International Publishers.
- Kumar, A., 2005. Procurement performance measurement System in the Health Care industry. *International Journal of Health care quality assurance*
- Leading to Effective Public Procurement Implementation: The Case of Amhara Region European Journal of Business and Management, A.A
- Leenders, R. M., & Fearon, E. H.,2002. *Purchasing and Supply Management*, (12th Ed.). Chicago: McGraw-Hill Companies.
- Mamiro,R.G., 2010 .Value for money. The limiting pillars in public procurement. *Tanzania procurement Journals*
- McKie, J. W. (1970). Regulation and the free market: The problem of boundaries. *The Bell Journal of Economics and Management Science*, 6-26.
- Michael A. Hitt, R. Duane Ireland and Robert E. Hoskisson, 2007. *strategy management*, 7th Edition, Thompsom South Western.
- Migai, J., 2010. *Development Partners and Governing Non-Governmental Organizations Procurement in Kenya*. (1st Ed.), Kenya: Macmillan Publishers. Model of the

Procurement of Complex Performance, *International Journal of procurement management*

Moncska, R. M., Handfield, R. B., Guinipero, L. C., & J. L. Patterson, (2010), 4th Ed. *Purchasing and Supply Chain management.*

NantageL., 2011. Total cost of ownership an analysis approaches for purchasing, *International Journal of physical Distribution and logistics management.*

Ngugi and Mugo K., 2012. *Factors affecting Effective management of the procurement function at Nakuru north sub-city.*

Nyeko, P. K., 2004, *Procurement Processes and Performance: Efficiency and Effectiveness of the Procurement Function*

Odhiambo, W, and Kamau, P., 2003. The integration of developing countries into the world trading system Public Procurement Lessons for Kenya and Uganda.

OECD, 2007. *Public Procurement Review of the Mexican Institute of Social Security. Enhancing Efficiency and Integrity for Better Health Care. Highlights.*

Otieno., 2004. *Procurement activities in public institutions.* Unpublished thesis. Kenya: Jomo Kenyatta University of Science and Technology.

Ouma Danis and Jennifer M. Kilonzo., 2014. Resource allocation planning: Impact on public Sector Procurement Performance in Kenya; *International Journal of Business and Social Science* 5, 7(1).

Ouman D. Hinson, C. and McCue, C. P., 2014. *Planning, Scheduling & Requirement Analysis.* Herndon, VA: National Institute of Governmental Purchasing, Inc.

Paulo Magana, 2014, Towards public procurement key performance indicators10publicprocurement knowledge balance plat form, Istanbul.

Peter, H. A., 2012. *The Dynamics of Procurement Management, A Complexity Approach.* 1st Edition.

Porter, M.E., 1998. *Competitive advantage: Creating and sustaining superior performance.* New York: Free Press.

PPA, 2011. The Federal Democratic Republic of Ethiopia, *Federal Government Public Procurement manual 2011*. Appendix 9 (9.1.1-9.1.5).

Program, Applied Research Projects, Texas State University.

Quentin W. Flemin ., 2003. *project procurement management*. Quality Books, Inc. First Edition, FMC Press, USA.

Rebecca K.M., 2007. *Factors influencing efficiency in procurement systems within the public Institutions*. Msc Project presented to the Jomo-Kenyatta University of Agriculture and Technology

Roodhooft F. and Abbeelee A.V.D., 2006. Public procurement of consulting services; Evidence and comparison with private companies. *International Journal of Public Sector Management*. 19(5): 490-512.

Russell, I., 2004. *People Management and Competency Profiling*. South Yarra: Test Grid Pty Ltd. 32.

Saunders, M., 2007. *Strategic Purchasing & Supply Chain Management*, (7th Ed.). Harlow Essex: Pearson Education Ltd.

Saunders, M.,1997. *Strategic Purchasing & Supply Chain Management*, (7th Ed.). Harlow Essex: Pearson Education Ltd.

Senait et al., 2016. *Factors Affecting Procurement Performance in the Case of Awassa Textile Share Company*.

Shantanu et al.,2012. Designing Efficient Resource Procurement and allocation mechanisms; Faculty and Research Working Paper, instead, the business school for the world.

Shaw, F.N., 2010. *The Power to Procure: A Look inside the City of Austin Procurement*

Sinder v.and Rendon G., 2001. *Impact of Training on Employee performance in un publication thesis submitted to wallo university*.

Smith, R. and Conway, G.,1993. *Organization of Procurement in Government Departments and their Agencies*. London: HM Treasury Consultancy and Inspection Services Division.

Sollish, F., and Semanik, J., 2012. *The procurement and supply mangers' desk reference* (2nd Ed.). USA, New Jersey: Wiley & Sons.

- Sriskan M,jardin Hand chan F.,2007.Assassing factor affecting the public procurement practice case of training on public sector .
- Sultana, A. I., 2012. Impact of Training and Employee Performance. *Inter-disciplinary Journal of Contemporary Research in Business*, 4 (6) 646-696.
- Thai, K.V., 2009. International public procurement: concepts and practices. *International handbook of public procurement*, .1-24
- Triantafillou, P., 2007. Benchmarking in the Public Sector: A Critical Conceptual Framework. *Public Administration Journal*, 8(4), 17-32.
- Uyarra E. and Flanagan K., 2009. Understanding the innovation impacts of public procurement, *Manchester Business School working paper*, No. 574.
- Walker F.and Brammer G., 2009.Precurement issue in Indonesia. *international journal of public management* ,30(90):566-583.
- Walker, H., and Brammer, S. (2009). The relationship between sustainable procurement and e-procurement in the public sector. *International Journal of Production Economics*, 140(1), 256-268
- Walter N.M, Christopher M, and O. Kepha ., 2015. *Effects of Procurement Practices on the Performance of Commercial State-owned Enterprises in Nairobi*,
- 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* Available from: <http://ijecm.co.uk/wp-content/uploads/2015/05/3520.pdf>.
- Witting, R.,1999. Completing the practice turn in strategy research. *Organization Studies*, 27.5: 613-634.
- World Bank., 2003. Standard Bidding Documents: *Procurement of Works*’, *World Bank, Washington, D.C.* Vol. 13, Issue. 1, Data & Statistics: Kenya.
- World Bank., 2005. Standard Bidding Documents: *Procurement of Works*’, *World Bank, Washington, D.C.* Vol. 18.
- Yamane, T.,1967. *Statistics: An Introductory Analysis* (2nd edition). New York, USA:Harper and Row.

ANNEX 1 QUESTIONNAIRE
ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE

Questionnaire for public sector staff employee

Questionnaire for employees in the government sectors on which Procurement will be Conducted. I am graduate student in Accounting and Finance at Addis Ababa University, College of Business and Economics. This questionnaire is required for the study entitled Factors affecting the Public Procurement Effectives in the Procurement public sectors of Oromia Regional State Specially in East Showa, East Arsi, West Arsi, Adama City Administration and at surrounding Finfine Like Lagatafo Lagadadi. My study is a partial requirement for the completion of master degree and it has undertaken for the academic purpose only.

This questionnaire is prepared in order to get the necessary information to undertake study on the above stated title. The purpose of the study is to examine factors that affect the public procurement effectiveness in selected Oromia towns and City Administrations public sectors.

Since most of the questionnaires stated below are closed ended type, responding them may not take much time. Any information provided will be kept confidential. Therefore, I kindly request your esteemed cooperation for volunteer to respond the questionnaire and provide accurate and complete data.

For more information, you may contact me by the following address:

Name Alemu Feyisa

Mobile 0926663691

Email: alemfish2018@gmail.com /alemufeyisa21@yahoo.com

Thank you in advance for your time & cooperation!

Attention: Do not write your name.

Questioner Number: _____

Date of interview: Day _____ Month _____ Year _____

Interviewed by: _____

Please, make a Check mark (✓) in the box that you way feel will be the answer

PART ONE: BACKGROUND OF RESPONDENT

1) Your current position.

- 1 Top Management
- 2 Management member
- 3 Team leader
- 4 Office staff

2) Gender 1 Male 2 Female

3) Age (in years) -----

4) Your educational level

- 1 Certificate
- 2 Diploma
- 3 BSc. /BA Degree
- 4 MSc/MA and above

5) Marital status

- 1 Single
- 2 Married
- 3 Widowed
- 4 Divorced

5) Your total years of service in your sector -----

6) Your total years of service in procurement -----

7) What is your profession?

- 1 Accounting
- 2 Procurement
- 3 Economics
- 4 Management
- 5 Other (Specify)-----

8) Your latest work efficiency (out of 100) -----

Part Two. Factors affecting the public procurement effectiveness related questions

In this part of the questionnaire, I am interested in your opinions about procurement. There is no right or wrong answers to any of these statements. What I would like you to do that simply read each statement as it appears. Then indicate the extent of your agreement or disagreement by

Which that is best describes your reaction to the statement:

1. PROCUREMENT PLANNING

Please rate your attitude on the following statement of using scale of rate in strongly agree, agree, neutral, disagree, strongly disagree

S. No	Statement	Strongly disagree	Dis Agree	Neutral	Agree	Strongly Agree
1.1	Preparation of Annual Procurement Plans is adequate and clear enough					
2.1	Always your sector Formulate Procurement Plans					
3.1	Formulation of the procurement plans in the department of your sector is good enough					
4.1	Frequently your sector Evaluating team of the prepared plan evaluates the plan					
5.1	Reviews of the procurement system are done at regular intervals					
6.1	The sector has a clear procurement planning Policy and procedure					
7.1	The sector makes standard procurement plan For all projects					
8.1	The sector uses qualified staff participating in procurement planning?					

9. Do you state other way of procurement planning that affect procurement effectiveness?

Please list them and state the rate of your attitude on it?

2. PROCUREMENT STAFF COMPETENCY

Please rate your attitude on the following statement of using scale of rate in strongly agrees, agree, neutral, disagree, strongly disagree

S. No	Statement	Strongly disagree	Dis Agree	Neutral	Agree	Strongly Agree
2.1	In Public Procurement and Property Disposal Service the procurement activity is conducted by competent procurement staffs					
2.2	Procurement staffs have ability to apply public procurement principles and evaluate bidding document					
2.3	Procurement staffs have the ability to negotiate with users and suppliers					
2.4	Public Procurement and Property disposal Service procurement staffs have the necessary skills and competence to handle complex and strategic procurement items					
2.5	Procurement staffs have the ability to understand users need market environment and supplier's capacity ?					
2.6	The procurement staff of your sector have enough skills and experience to carry out procurements effectively ?					
2.7	Competence of procurement staff of your sector is effective, efficient and really believable					
2.8	Procurement staff of your sector provide solutions to the procurement problems					
2.9	Training for procurement staff to improve knowledge, skills and experience of them were taken frequently and effectively					

10. Do you state other way of procurement staff competency that affect procurement practice? Please list them and state the rate of your attitude on it

3. PROCUREMENT POLICY AND PROCEDURE

s. no		Strongly disagree	Dis Agr ee	Neut ral	Agr ee	Strongly Agree
3.1	Tender evaluation conducted according to predetermined set criteria in the bid document					
3.2	Contract management is conducted according to the bidding and contract document terms and conditions					
3.3	In Public Procurement and Property Disposal Service procured items are tested and inspected accordingly at the time of delivery					
3.4	In Public Procurement and Property Disposal Service bidder's complaint is handled without bureaucratic system					
3.5	In Public procurement and property disposal Service procurement performance is adequately evaluate ?					

Please rate your attitude on the following statement of using scale of rate in strongly agrees, agree, neutral, disagree, strongly disagree

6. Do you state other way of procurement policy and procedure that affect procurement practice? Please list them and state the rate of your attitude on it?

4. RESOURCE ALLOCATION.

Please rate your attitude on the following statement of using scale of rate in strongly agrees, agree, neutral, disagree, strongly disagree

s.no	Statement	Strongly Disagree	Dis Agree	Neutral	Agree	Strongly Agree
4.1	Your sector budget was reviewed to cater for changes in the economic environment					
4.2	Tender float based on resource availability and confirmation					
4.3	Tender award based on resource availability and confirmation					

4. Do you state other way of resource allocation and procedure that affect procurement practice? Please list them and state the rate of your attitude on it

5. EFFECTIVNESS OF PROCUREMENT.

Please rate your attitude on the following statement of using scale of rate in strongly agrees, agree, neutral, disagree, strongly disagree

S. no	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	Your sector uses an organized list of Vendors					
5.2	The sector has a clear vendor selection processes					
5.3	The sector use qualified staffs participating in vendor selection processes					

5.4	The sector refers and considers past supplier performance during vendor selection processes					
5.5	The sector use quality as appropriate vendor selection criteria					
5.6	Evaluation of tenders is conducted transparently					
5.7	The vendor selection process complies with different donors' rule and regulation					
5.8	Timely preparation of request for quotation for tender					
5.9	Timely evaluation of bid documents?					

If you have additional comments

thank you very much!!!