Factors Affecting Public Procurement Performance in Ethiopia: Case of Jimma, Mettu and Bonga Universities.

A Research Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfilment of the Requirements for the Award of the Degree of Master of Logistic and Supply Chain Management (LSCM).

BY: BERHANU ABEBE

JIMMA UNIVERSITY

COLLEGE OF BUSINESS & ECONOMICS

LSCM PROGRAM

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And

Miss. Tigist Waktole (MBA)

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DECLARATION

I hereby declare that the thesis entitled “Factors Affecting Public Procurement Performance in Ethiopia: Case of Jimma ,Mettu and Bonga Universities.” has been carried out by me under the guidance and supervision of Mr. Wendimu Abule (Ass. Prof.) and Miss. Tigist Waktole (MBA). The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

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Acronyms and Abbreviations

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

Abstract

Ethiopian Universities are fully dependent on government's budget and procurement budget comes from tax payers. However, there is misappropriation of procurement budgets. Recently, procurement budget deficit has been observed in Public Universities of Ethiopia and resources have been wasted through non-transparent procurement systems Gizachew, (2012. *Employees also have been complaining about the quality of goods and services in every annual meetings held. Delays, poor qualified products and services, over pricing compared to the actual market price are the basic problems observed in procurement functions and improvements action needed. The researcher identified four factors that affect the procurement performance. Primary and Secondary source data was integrated, Primary source: include the actual information received from individuals directly concerning the problem of the study, interview, focus groups, key informant, observation and questionnaires. Secondary datasource was included previous research reports, newspaper, magazine and journal content.The research design is made based on descriptive and explanatory research.The sample size of the study is 373 respondents from academic and administrative staffs who currently working at management position and have direct relationship with procurement activities. The interpretation was conducted which can account as qualitative in nature. The study concludes that procurement planning, staff qualification, procurement procedures and utilization of ICT positively affect procurement performance at SPU. The most important factor was found to be procurement planning followed by procurement procedures as pointed out by most of the respondents. The study recommends that the public universities should also unify and embrace the changes in technology to come up with the latest ways of work to help to manage work flow management functions controlling efficiently and effectively and invite professional and competent staff for public universities,*

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

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Public procurement financial records for 15-30% of the gross domestic products (GDP) for many countries in the world(UNDOC, 2013). While public procurement represents an estimated 15% of gross domestic products in Organization for Economic Cooperation and Development, countries and up to 25% of gross domestic products in developing countries OECD, (2007).The share is believed to be much higher in developing and least developed countries, where development of basic infrastructure is still the prime focus of governments and consumes huge budget Basheka&Bisangabasaija, (2010). In developing countries, public procurement is progressively recognized as essential in service delivery and it accounts for a high proportion of total expenditure. For instance, public procurement accounts for 60% in Kenya Akech, (2005), 58% in Angola, 40% in Malawi and 70% of Uganda‟s public expenditure Basheka and Bisangabasaija, (2010). In developing countries, the current attention of government in collaboration with organizations is attaining millennium development goals particularly poverty reduction, improvement of health, education and infrastructure development and others. Hence, all these can be attained through effective public procurement function (Abebe, G2012).

Procurement is a powerful driver of development of a nation. In contemporary times, it has been seen as value-adding and solution providing business function which aids organizations as a means of profitability, corporate growth and competitive advantage (Cosmas 2017). It is the process of acquisition by means of contractual arrangements after the public competition of goods and services, works and other supplies by the public entity (Getahun 2015)

Effective procurement process should be efficient, transparent and accountable to achieve its objective (Njeru, 2015). Recent studies in public procurement revealed that public procurement effectiveness leads efficient management of public money which is obtained from tax payers. This totally enhances the overall public sector effectiveness (Abebe, 2012). African countries spent 70% of their annual budget for procurement of goods, services and works for institutional uses (Abebe, G 2012). The main source of procurement budget in public organizations is mainly tax payers (Walker, H., &Brammer 2009). Ethiopian Higher educational institutions obtain the total procurement budget

from government (Yizengaw, T 2003). According to (Dea, M.2016), 40% of the total education budget goes to Public Universities of Ethiopia; they have lion shares in this regard. Though, Universities procurement has been problematic.

Lately, procurement budget shortage has been observed in Public Universities of Ethiopia. Employees also have been complaining about the quality of procured goods and services in every meetings held in Universities. The purchased items are below the quality description; hence, it has been creating an adverse impact service delivery. Public Universities in Ethiopia have three basic common goals; providing quality education, conducting problem solving studies and delivering community services. In attaining of all these goals, they were found to be weak. Effective public procurement practice is one among other strategies that assists for the gaol achievement of Universities (Yemer, 2017). Hence, it was found out that research on public procurement practice was desired.The focus this study was describing the procurement practices as how they were conducted and what kind of challenges had occurred and has been occurring during procurement process and the resultant procurement performance. In addition, it was attempted to identify draw backs of procurement on achieving the overall objective of the organization.

This study aims examine Factors Affecting Public Procurement Performance in Ethiopia: Case of Selected Public Universities. To fill the current gap and since public procurement have potential negative impacts on the performance of SPU procurement function, elimination of these challenges will go a long way to aid the proper functioning of public procurement system in Ethiopia.

1.2. Background of the Organization/Study area

This paper conducted on selected public universities in Ethiopia this includes; Jimma University, Mettu University and Bonga University.Jimma University was founded on the amalgamation of the Jimma Institute of Health Science and the Jimma College of Agriculture in the 1980's. Both institutions had been national leaders in their respective fields, and with the merger, the development of a new, multifaceted and development oriented institution was able to emerge from the two former specialty institutions. Throughout the 1990's Ethiopia as a nation was determined to overcome the significant development challenges facing the country. Such challenges were found in all sectors of society and in all regions. Given this reality, new institutions needed to be developed in a manner that would be conducive to the development of the nation. A well- conceived and applicable higher education institutional development scheme was necessary for the broader development of the

country. Numerous new higher education institutions were founded all over the country while existing institutions were strengthened and expanded upon.

Jimma University is frequently named the top ranked public institution in the nation, and this comes from the quality of each academic program.

Today, Jimma University has numerous Memorandums of Understanding's with a variety of partners from around the world. Jimma University emphasizes that the power of collaboration is greatest when there is the most diverse set of international partners. Jimma University is in a critical development stage, and with the physical and programmatic development of the institution, the goal of becoming a globally collaborative and competitive university which produces the highest quality academic and research output yearly will surely be achieved.Mettu University, in its acronym (MeU), was established as a result of Ethiopian government's endeavor towards realizing the country's renaissance through educating the generation. It is one of the nine newly established public higher learning institutes.

Bonga University is one of the Public Higher Education institutions in Ethiopia. It is established with its own legal personality by the proclamation No. 349/2015 of the Council of Ministers of the Federal Democratic Republic of Ethiopia. It is found in the South-Western part of Ethiopia, in the Southern Nations, Nationalities, and Peoples (SNNP) region. The university is being established over nearly 174 hectares of area with an extremely impressive natural landscape. Its main campus is located in Bonga town, the capital of the Kaffa zone. The town is located at about 460 km distance from the capital of Ethiopia, Addis Ababa. It is privileged to be situated along the major highway connecting the south western region with national capital and the central part of the country, which makes it occupy spatially more accessible position. Bonga University is committed to realizing its vision through concerted efforts of playing its share in contributing for local, national and global development through the effective implementation of its academic, research and community engagement programs. The core issues of focus that have direct relevance to the university's mission accomplishment include: Producing knowledgeable, skilled, and internationally competent graduates with demand-based proportional balance of fields/disciplines; promote demand-driven research focusing on technology transfer consistent with the country's priority needs; ensuring the development and dissemination of research outputs of wider impact via publications on journals, proceedings, and newsletters, as well as research symposia, workshops, seminars and public lectures,

design and provide community and consultancy services that will cater to the local, and national developmental needs.

Therefore, the researcher conducted a research areas are JimmaUniversity, Mettu University and Bonga University.

1.3. Statement of the Problems

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

In many developing countries, huge amounts of domestic and foreign resources spend on public procurement. However, public procurement systems are very weak and effective governance of the public sector is at the centre of strong challenges Thai, (2009). Moreover, in developing country, many procurement activities still suffer from neglect, lack of proper direction, poor coordination, slow with a number of bureaucracy, lack of open competition and transparency, lack of accessibility, differing levels of corruption and not having a cadre of trained and qualified procurement officer, who are capable to conduct and manage the procurement process in a professional, timely and cost effective manner Wanyonyi, (2015).

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

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

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

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

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

The basic element involves in performing the procurement function are obtaining the proper equipment, material supplier and service in the right quality, in the right quantity, at the right price and from' the right source in simple terms as Alijan described in his scholarly article for the issue at hand (Alijan, 1973).

Therefore, the emphasis this study was telling the procurement practices as how they were conducted and what kind of challenges had happened and has been occurring during procurement process and the subsequent procurement performance. In addition, it was tried to classify draw backs of procurement on attaining the overall objective of the organization.

This research fills the gap in Ethiopia Universities especially Jimma, Mettu and Bongaselected public universities. Because the researchers understand the problem existing in Universities, To this effect, It is essential to find the fact through scientific research and to suggest appropriate remedies for the identified problems above and fill this research gap by examining factors such procurement plans, employeesworkethic and staff qualification, procurement procedures and utilization of ICT.

1.3. Research Questions

2. How procurement planning influence the performance of public procurement in selected Public Universities in Ethiopia?
3. How staff competency influence public procurement performance in selected Public Universities in Ethiopia?
4. How does procurement procedure influence public procurement performance in selected Public Universities in Ethiopia?

5. What is the effect of adoption of information technology on the public procurement performance in selected Public Universities in Ethiopia?

1.4. Objectives of the study

1.4.1. General Objectives

The general objective of this research was to examine the factors that affect public procurement performance in selected Public Universities in Ethiopia.

1.4.2. Specific objectives

The specific objectives of the research are:

- To examine the effect of procurement planning on theperformance of public procurement in selected Public Universities in Ethiopia.
- To examine competency of staff influence the performance ofprocurement in selected Public Universities, Ethiopia.
- To investigate the influence of procurement procedure on procurement performancein selected Public Universities, Ethiopia.
- To examine how the adoption of Information Communication Technology caneffect on procurement performance in selected Public Universities, Ethiopia.

1.5. Significance of the study

The findings of this research may help Ethiopia Public Universities to identify the factors that affect procurementperformance and to fix the problem with remedial action. It is also expected that from thefindings of this study,

- Ethiopia Public Universities may put in place appropriate measures to improve procurementperformance levels.
- It provides the researcher an opportunity to compare the academic theory with theactual procurement practice at the ground and gain deep knowledge in the concepts of Publicprocurement performance.
- Reference for other researchers who are interested in conductingstudies on related issue.

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

1.6. Scope of the Study

Recent studies in public procurement revealed that public procurement effectiveness leads efficient management of public money which is obtained from tax payers. This totally enhances the overall public sector effectiveness (Abebe, G., 2021). The study focuses on factors affecting public procurement performance in selected public universities. The selected public universities are Jimma University, Bonga and Mettu Universities. The respondents are college director, college deans, Faculties and all administration staff.

1.7. Limitation of the study

It is understandable that research employment can't be completely free of charge from constraint. The constraint of the study was due to corona viruses or Covid 19 epidemic a few research questionnaires are difficult to collect. Some questionnaires and interview were not collected due to lack of willingness to provide the response and very busy to answer the interview with detail response.

1.8. Organization of the paper

The study has four chapters. Chapter one introduction, it includes background of the stud, statement of the problem, research questions ,objectives of the study, significance of the study, scope of the study, limitation of the study, definition of terms and the organization of the study. The literature related to the subject matter is presented in chapter two. Chapter three is about research methodology, which shows the type and design of the paper. Chapter four about Data presentation and analysis and the last chapter five is about summary of findings, conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

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

2.2. Definition of Public Procurement

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

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

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

Procurement is referred to as acquisition of goods, services, capabilities and knowledge required by businesses, from the right source, the right quality, in the right quantity, at the right price and at the right time to maintain and manage a company's main and support actions (Giunipero et al. 2006). According to Mangan et al (2008), procurement is a process of identifying and obtaining goods and services. It includes sourcing, purchasing and covers all actionsfromidentifying potential suppliers to delivery to the recipient.

2.3. Principles of Public Procurement

There are a number of principles of public procurement that can be identified that are shared by some most, principles most or many systems of public procurement. These principles are implemented through various means of legal and regulatory rules on conducting public procurement procedures are one of these means. The twelve procurement principles which guide public procurement listed below (https://www.finance-ni.gov.uk)

Twelve agreed procurement principles:

1. Accountability	Effective mechanisms must be in place in order to enable Departmental Accounting Officers and their equivalents in other public bodies, to discharge their personal responsibility on issues of procurement risk and expenditure.
2. Competitive supply	Procurement should be carried out by competition unless there are convincing reasons to the contrary.
3. Consistency	Suppliers should, all things being equal, be able to expect the same general procurement policy across the public sector.
4. Effectiveness	Public bodies should meet the commercial, regulatory and socio-economic goals of government in a balanced manner appropriate to the procurement requirement.
5. Efficiency	Procurement processes should be carried out as cost effectively as possible.
6. Fair-dealing	Suppliers should be treated fairly and without unfair discrimination, including protection of commercial confidentiality where required. Public bodies should not impose unnecessary burdens or constraints on suppliers or potential suppliers.
7. Integration	In line with the NI Executive's policy on joined-up government, procurement policy should pay due regard to the Executive's other economic and social policies, rather than cut across them.
8. Integrity	There should be no corruption or collusion with suppliers or others.

9. Informed decision-making	Public bodies need to base decisions on accurate information and to monitor requirements to ensure that they are being met.
10. Legality	Public bodies must conform to the European Union and other legal requirements.
11. Responsiveness	Public bodies should endeavour to meet the aspirations, expectations and needs of the community served by the procurement.
12. Transparency	Public bodies should ensure that there is openness and clarity on procurement policy and its delivery.

2.4 Procurement Procedures

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

2.4.1 Need Identification

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

2.4.2 Planning and Specification of Goods or Services Required

Once the needs have been identified, the procurement department should develop or communicate a plan on how to deliver the service or goods required. The plan must be developed
in collaboration with the other functions within the organization, so that it is integrated into the organizations strategy and therefore provided for adequately Shaw, (2010).

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

Thai, Araujo, Carter and Callender (2005) provide that a specification is a detailed description of the design, the service, or materials. It describes in detail the requirements to which the supplies or services must conform. The basic requirement of a good specification is to clearly identify the service or product to stakeholders. The specifications must be clear to all parties. That is the user,

procurement and the supplier. Factors to consider in specifying a product include physical attributes, technical specification, and intended use Thai et al, (2005).

2.4.3 Sourcing, Awarding, and Supplier Management

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

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

2.4.4. Steps in the Sourcing Process

- **Market Enquiry**

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

- **Evaluation and Awarding**

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

2.4.5 Placing Orders and Contracting

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

2.4.6 Progressing/Expediting

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

2.4.7 Delivery and Return

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

2.4.8 Payment

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

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

2.4.9 Records of procurement documents

According to the proclamation (2009), public bodies shall have to maintain records and documents regarding their public procurement, the record shall include; A brief description of the procurement, the invitation to bid, the name and addresses of suppliers that submitted bids, the evaluation criteria stipulated and a summary of the evaluation and comparison of bids, Information on the proceeding of any decision rendered where a complaint against a procurement process is lodged and the ground for using a procurement procedure other than open bidding;

2.5 Procurement performance

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

Batenburg and Versendaal (2006) noted that use of inappropriate means can be a barrier to change and may lead to deterioration of procurement operations. Organizations which do not have

performance means in their processes, procedures, and plans experience lower performance and higher customer dissatisfaction and employee turnover. Measuring procurement performance yields benefits to organizations such as cost reduction, enhanced profitability, assured supplies, quality improvements and competitive advantage. Electronic processes have replaced physical and paper-based processes. E-procurement moves tendering, negotiation and purchasing processes to websites. Improvement to a PE‟s procurement performance can be realized through reduced costs and wider choice availed.

2.6. Procurement Performance Indicators

According to the Organization Economic Cooperation Development (OECD) (2014)experience in working with public procurement shows that a sound procurement system includes:

a) Procurement rules and procedures that are simple clear and ensure access to procurement opportunities;
b) Effective institutions to conduct procurement procedures and conclude, manage and monitor public contracts;
c) Appropriate electronic tools;
d) Suitable, in numbers and skills, human resources to plan and carry out procurement processes; and
e) Competent contract management.

However, in February 2013, the Leading Practitioners on Public Procurement asked the OECD to help developing a set of indicators to measure the performance of public procurement systems and their evolution over time. And thus, four areas for the development of indicators were identified:

1. Efficiency of the public procurement cycle
2. Openness and transparency of the public procurement cycle
3. Professionalism of the public procurement workforce
4. Contract performance management

When we see them in detail the first set of key performance indicators for each involve: **Efficiency of the public procurement cycle:**

- Use of contracting mechanisms
- Uptake of e-procurement
- Savings using framework agreements with second-stage competition
- Efficiency of the public procurement unit
- Public procurement award time

Openness and transparency of the public procurement cycle:

- Promoting competition: procurement procedure
- Promoting competition: number of bids
- Increasing the supplier base
- Transparency of public procurement information

Professionalism of the public procurement workforce:

- Number of public procurement officials according to the value and number of contracts and unsuccessful processes
- Level of trained public procurement officials

Contract performance management:

- Are suppliers delivering the right thing?
- Are suppliers delivering at the right moments?
- Are there delays in payment?

And all of these parameters were applied in different circumstances. Likewise the following table shows the performance indicators differently.

The following are procurement Performance Indicators

No	Indicators Name	How it can Improve performance	Description	Performance Category
1	Product Price Variance	Prices paid for focus goods are In alignment with international prices	Percentage price variance between contract unit price and international unit price for focus products	Cost
2	Effective contract utilization	Efficient procurement mechanisms are being used	Percentage by value of purchases made under simple purchase orders, annual contacts, and multiyear contracts	Cost
3	Expiration Management	Food supply chain practices are being used, including inventory management, demand management,and the timely supply of good quality products	Annual dollar value of expired products or percentage value of expired products	Quality
	Supplier Performance	A) Supplier delivers the correct goods	Percentage of orders in compliance with contract criteria	Quality

		B) Supplier delivers foods on time	Percentage of orders delivered on time	Timeliness
5	Procurement Cycle Time	There are no delays In executing procurements	Percentage of procurements completed (placed) within standard time guidelines	Timeliness
6	payment processing time	There are no delays in processing payments to suppliers	Percentage of supplier payments made within the payment period called for in the contract	Timeliness

Source: Procurement Performance Indicators to Strengthen the Procurement Process for Public Health Commodities, USAID I DELNER PROJECT, Task Order 4,and January, 2013

2.7 Challenges in public procurement

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

A. Internal challenges

Public procurement practitioners have always walked on a tight rope. Their ability to accomplish procurement objectives and policies is influenced very much by internal forces including: i) Interactions between various elements of the public procurement systems, various officials and organizations in the three branches of government, and various actors and sub-agencies within a department or executive agency and actors and organizations external to sub-agencies; ii) Types of goods, services and capital assets required for an agency's missions; iii) Professionalism or quality of procurement workforce; iv) Staffing levels (e.g., ratio of procurement practitioners to contract actions) and budget resources; v) Procurement organizational structure such as the issue of centralization vs. decentralization; vi) Procurement regulations, rules and guidance; and vii) Internal controls and legislative oversight.

B, External challenges

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

i. Market Environment

Market conditions have a great influence on public procurement practitioners‟ effort to maximize competition. Moreover, the market determines whether or not socio-economic objectives of

procurement are accomplished, whether or not a governmental entity can fulfil its needs; the timeliness of fulfilment; and the quality and costs of purchased goods, services and capital assets. As there are different levels of economic growth among countries in the world, market conditions are very favourable in industrialized countries, while they may be unfavourable in developing countries.

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

ii. **Legal Environment**

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

iii. **Political Environment**

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

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

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

v. **Other Environmental Forces**

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

2.8 Factors affecting Procurement Performance in Public Sector

2.8.1 Procurement Planning and Procurement performance

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

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

2.8.2 Procurement Procedures and Procurement performance

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

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

2.8.3 Information Communications Technology and Procurement performance

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

2.8.4 Staff Qualification and Procurement performance

Saunders (1997) believed that successful functioning of organizational structures and effective operation of planning control systems is dependent on the quality and ability of staff employed.

Strategic plans should include information on the acquisition, development, use and reward of human assets. Plans need to take into account the current state of development of the procurement function and the strategic direction in which its state might change. Multi-skilling provides employees with a variety of skills and should be developed extensively. Training is beneficial and generates more than the equivalent cost in payback. To further the goals of value-based management, all employees need broad and continuous education and training. Education, training and professional development should be skill, process oriented and continuous.

Leenders and Fearon (2002), noted that the large number of items, huge monetary volume involved, need for an audit trail, severe consequences of poor performance, and the potential contribution to effective organizational operations associated with the procurement function arefive major reasons for developing a sound, professionally managed procurement system. They further argue that qualifications are crucial for value-based management which requires employees to assess and improve processes while contributing to team performance. In addition, qualifications enhance staff ability to perform, enabling them to make better decisions, work as a team, and adapt to change, while increasing efficiency, quality, productivity and job satisfaction. Training is often for improving immediate work while education develops people for the long term. To enable individuals to create value consistently, both education and training are needed.

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

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

Baily *et al.* (2005) propounded that knowledge of the mission, the existence of top-down objectives with related performance measures, and process guidelines link individual or group performance to the firm's goals and expectations of upper management require good qualifications. The use of teams, cross-functional managers, broad process and linkage oriented job responsibilities, and extensive information systems enable individuals to balance conflicting objectives and improve processes. Professional qualifications are the fulcrum around which performance turns. Without well-motivated,

able and well trained staff, even the more brilliantly conceived plans and strategies can fail. A motivated team whose members work for and with each other can beat a team of less motivated people even if they are greater in talent. To improve procurement performance, it is essential to understand the roles that are to be performed, the standards to be achieved and how performance is evaluated.

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

2.9. The five key purchasing variables

2.9.1 The Right Quality View

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

2.10 Empirical Review

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

Kiage, (2013) Conducted an empirical research on factors affecting procurement performance in the Kenyan public sector pointed out the most important factor was found to be procurement planning followed by contract management as pointed out by most of the respondents. This was because good plans result to effectiveness and efficiency in achieving projected results. Mamiro, (2010) agrees with these findings and concludes that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needsthat are not well identified and predictable, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. The study found out that there was poor contract management at the sector characterized by delays in payments to suppliers which hampers greatly on their service delivery, lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without

participation of procurement function. Similarly, the study found out that were no project progress reports filed with management.

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

Public procurement is not a current issue; it was practicable by Egyptians while constructing the popularly known pyramids. Recently managers recognize that it is a basic means of competitive edge. Several policy as well as non-policy factors have been distressing the effective functioning of procurement practice in public organization. Some of these factors are the procurement policy of the country, the legal environment, the structure of the organization, the ethics of employees, ICT, the way institutions manage suppliers and the allocation of procurement funds (Tirualem, 2020).

2.10.1.Procurement Policy

Procurement policies are the preliminary and mandatory instruments that guide procurement specialists for the fulfilment of organizational needs (Njeru, Silas E., et al. 2014). Procurement by its nature is a very complex function that must have a comprehensive procurement policy manual that guides procurement staffs, the agency staffs and all the concerned bodies including stakeholders to follow the proper procedures and rules. A procurement policy helps concerned staffs by providing clear and consistent understanding of the required regulations. In the absence of such procurement guidance, a lack of consistency in how procurement work is carried out becomes worse. If inconsistency appears, frustration will happened both inside and outside the organization; this again results in arbitrary and unfair procurement actions. It is therefore critical for public procurement to have a comprehensive procurement policy manual.

In most public institutions, the existence inadequate compliance of procurement regulations, existence of of meagre procurement policies, using poor procurement procedures, and absence of efficient policy making process are empirical evidences that threatens the functioning of procurement practice. Procurement policies are important not only for effective procurement agenda but also for development perspective (Agbesi, K. 2009). Lack of compliance with procurement regulations usually results in asymmetrical procurement functions in organization that create huge gap for the misuse of public resources. Ensuring accountability, honesty, transparency and efficient utilization of public money are the basic targets of procurement function (Ekung, S., Adeniran L., and Ogochukwu A.2015). Properly made procurement policies serve the public as best procurement guidelines (Njeru, S. E 2015).To do so, procurement policies should be exposed to continual reforms since procurement capital is becoming scarce. (Njeru, Silas E., et al 2014) also stated good governance is usually the outcome of efficient procurement policies. However, as (Njeru, Silas E., et al 2014) clearly sets due to several other intervening issues like the magnitude of the organizations, the accessibility of suppliers, the system of payment and the credit system of buyers becomes challenging to design correct method to establish a procurement policy since all these factors affect the procurement process.

2.10.2. Organizational Structure

The way functional groups arranged has an effect on the goal of organizations. An effective organizational structure creates conducive working environment by creating easy working relationships among different organizational units. Barsemoi, H., 2014, Mwanjumwa, G., and Simba, T.F.,2015 stated that excellent organizational structure highly helps for the efficient functioning of procurement function in organizations. A study by (Mwanjumwa, G., and Simba, T.F.,2015) on Red Cross in Kenya found out that organizational structure has insignificant effect on the performance of procurement in Kenya. However, descriptive results revealed that procurement department is highly recognized in the institutions. The considerable attention to procurement workers in decision making and the existence of team works in the organization has been playing the biggest role towards ensuring efficiency in the procurement process.

2.10.3. Information Communication Technology (ICT)

Information communication technology (ICT) is a part of technological issues in which most companies are now using it widely. It helps to give excellent service and easy access of information. Onchweri, N. N., and Muturi W.,2015in their study on the factors affecting donor funding, they found out that technology has a significant effect on the procurement process. Technology usually needs

huge investment. However, it makes procurement processes less time taking, cost effective, reduces quality problems and minimizes the chance of corruption [Kirui, E. K., 2015]. Using ICT in pubic organizations specifically in procurement department also affects its implementation (Ngatara, I. W., and Carolyne A.,2016). Recently ICT has a big role in facilitating procurement; it helps to get adequate information, lowers cost for buyers, and avoids distance barriers to receive products and to get service (Kingori, W. P., and Ngugi K.,2014).

Through the scrutiny on the related literatures and comparison made with the theoretical, empirical and legal framework discussions we could understand and show the prevalent gap between theoretical discussions in procurement and what the practical aspect in public higher education's looks like. In summary, the theoretical and related literatures the public procurement have the following common problems in the area.

a) 1 Poor use of Information Technology in Procurement process;
b) 2 Lack of skilled manpower in the procurement related field;
c) 3 Weak culture of preparing procurement planning;
d) 4 Minimal top managements' attention for the procurement function;
e) 5 Backward procurement procedures and manuals;
f) 6 Quality give in due to focusing only on least price suppliers' selection criteria; and bureaucratic red tapes and lengthy procurement process.

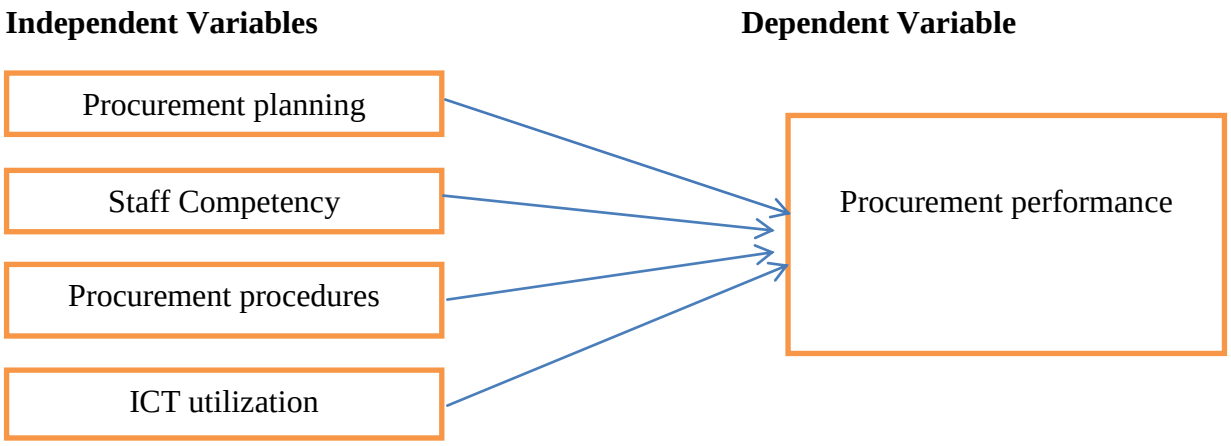
Which all of the public procurement the four legal frame works such as Public Procurement proclamation No 649/2009, Public Procurement Manual, Standard Tender Documents (STD), Public Procurement Regulations, and Guidelines Issued by the Public Procurement Authority (PPA) couldn't have solved yet. Here the study attempts to identify factors that affect procurement performance at the higher education institutions in the case of SPU up on this fact. The aspects of IT, employee competency, organizational structure, procurement planning, and resources allocation and procurement follow-up mechanism are the independent variables while procurement performance is the dependent variable.

2.11 Conceptual Framework

According to Bogdan and Biklen (2003) a conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experimental and the analytical/synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. A variable is a measurable characteristic that assumes different values among subjects. Independent Variables are changes that

occur in an experiment that are directly caused by the experimenter. The independent variables in this study are procurement related procurement planning, staff competency, procurement procedures, and utilization of information communications technology. Procurement performance is a function of several variables is presented in dependent variable. Both independent variable and dependent variable are depicted in figure 2.1 below:

Figure 2.1Conceptual Framework



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

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. The Research Approach

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

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

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

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

3.2. Research Design

Kothari (2004) stated that the research design is the conceptual arrangement within which the research conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Therefore the research is made based on descriptive and explanatory research type or design. According to Kothari (2004), descriptive research includes different kinds of surveys andfactfinding enquiries. The major purpose of descriptive research is description of the state of affairs as it exists at present. The design is used to describe the characteristics of the independent variables (procurement plans and staff competency, procurement procedures, utilization of ICT). This helps to obtain information concerning the current status of the phenomenon to describe what the current situation is with respect to the variable of the study, the procurement performance. The same author asserts that

in descriptive design the problem is structured and well understood and gives a report on things as they actually are.

The purpose of this study was to identify challenges facing procurement process throughexperience survey research design. In other word people who have had practical experience of the problem to be studied were surveyed. The method selected because it was deemed the most appropriate relating to the issue under investigation. However,descriptive design was used to study factors relating to the procurement problem for it requires deeper study.

3.3. Sample Design

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

3.3.1. Target population

The whole set of the universe from which a sample taken is called the population Saunders et al, (2007). Target population refers to the larger population to which the researcher ultimately would like to generalize the results of the study Mugenda, (2003). The population of this research are academic college director, college deans and faculties' representatives, and all administration staff of Jimma total population 3,618, BongaUniversity 757 total population and Mettu Universities 1,124 total population, the target population of the study is 5,499.

3.4. Sampling Technique

In regarding to selection of respondents, the researcher was used both probability and non-probability sampling Saunders et.al, (2007). According to Walliman (2005), Saunders et al. (2007) purposive sampling is a useful sampling method which allows a researcher to get information from a sample of the population that one thinks knows most about the subject matter.

The researcher was used purposive method consists of the employee members of procurement staff of selected public universities and the researcher used simple random sampling technique to distribute questionnairesto select respondents from selected public university administrationand academicstaff employees.

3.5. Sample Size

According to Field (2005), whenever it is possible to access the entire population, it is possible to collect data from sample and use the behavior within the sample to infer things about the behavior of the population. According to Kothari (2004) sample size should be optimum in which it fulfills the

requirement of efficiency, representativeness, reliability and flexibility. The number depends on the accuracy needed, the population size, population heterogeneity and resources available. So, the sample size should be determined by using statistical formula. Of route, different authors use different formulas to determine the sample size of the study. For the purpose of this study, the formula set by Yaman's 1967 were used to determine the sample size, which is reliable when the population size is known, by using the Yaman's sample formula for calculations of sample sizes. The conventional confidence level of 95 percent was used to ensure a more accurate result and margin of error is 5 percent (0.05).

$$n = N / (1 + Ne^2)$$

$$n = \frac{N}{1 + (N)e^2} n = \frac{5499}{1 + (\ 5499\ )(0.05)^2} \approx 373$$

Where; **N** = Total population

n = sample size

e = level of precision

3.5. Sample Size Determination

Table Showing Sample Distributions among Different Units of the Institution

Table 3.1. Sample Size determination

S. No	College/ Institute / including Administration Unit	Target Population	Sample Size
1	Jimma University Specialized Hospital	855	58
2	College of Medical Science	825	56
3	College of social science	56	4
4	College of Law and Governance	50	3
5	College of Natural Science	88	6
6	Jimma Institute of Technology	1115	76
7	College of Agriculture & Veterinary Medicine	529	36
8	College of Business & Economics	55	4
8	College of Education & Behavioural Science	45	3
	Mettu University		
1	College of Natural Science	43	3
2	College of Social Science	51	3
3	College of engineering	356	24
4	College of Agriculture & Veterinary Medicine	542	37
5	College of Business & Economics	43	3
6	College of Education & Behavioural Science	89	6
	Bonga University		0
1	College of Business and Economics	49	3
2	College of Engineering	362	25
3	College of Agriculture	253	17
4	College of Social Science	41	3
5	College of Natural Science	52	4
	Total	5,499	373

3.5. Data Sources and instrument

The data source of the study was both primary and secondary data. Primary source of data were obtain from structured interview and questionnaire, the questionnaire were consists of open ended and closed question. Secondary source of data was obtained from books, published journals, magazines, bulletins and websites.Additionally, the data collection covers all academic and administrative office of the SPU the researcher hired two data enumerators for assistance in distributing and collecting the questionnaire. They would also be given detail training regarding the purpose of the study and data needed. Moreover, the data collectors were hired only to assist the researcher and they will help in distributing and gathering the questionnaire under the personal supervision of the researcher. The questionnaire constituted two parts; the first part aims at getting the personal information of respondents and it included questions regarding gender, age, occupation and educational status. The second and main section of the questionnaire was designed to collect data about the overall information related to factors affecting procurement performance of the organization and other supporting questions.

3.6. Data Collection Procedures

After obtaining permission for the study from the Selective Universities, the researcher distributes the compile questionnaire with the help of human resource head representative to assist the researcher at each university. The data collection instrument, for collecting the primary quantitative data use a self-developed questionnaire containing self-assessment items measured on the 5-point Likert type of scale strongly disagree, disagree, neutral, agree, strongly agree and qualitative data collected through open-ended questions questionnaires were distribute to respondents, including a contingency to compensate for invalid and uncollected questionnaires. The questionnaires were administer using a drop and pick later method. For this study an interview was conducted from Procurement and Information Communication Directorate Directorby using purposive non probability sampling technique. This method exposes the researchers to focus on higher level, middle level and lower level managers of SPU who directly or indirectly involved in the procurement and have relevant knowhow with the issues of the study.The researchers conducted purposive or judgmental interview in SPU are in Jimma University 8 (eight interviews) conducted on directorate and team coordinators. By Phone interview conducted in Mettu University and Bonga University three and four respectively. Collections of data on selected public university are Jimma University and Jimma University

Specialized Hospital was 219 (two hundred nineteen) respondents, collected data in Mettu University and Bonga University 68 (sixty eight) and 45 (forty five) respondents respectively.The total sample of the study questionnaires distributed was 373 (three hundred seventy three) respondents. From the total sample of distributed questionnaires the replied respondents were 332 questionnaires.

3.7. Methods of data analysis

The study used regression analysis which is a statistical technique that was used for studying the relationship between the dependent and independent variable (s). It provides a method to predict the changes in the dependent variable in response to changes in either a single or more than one independent variable. Hence, it allows the researcher to determine the relative importance of each predictor as well as to ascertain the contribution of the independent variables (Sekaran, 2003). Therefore, in this study the procurement planning, staff competency, procurement procedures, and utilization of information communications technology are the independent variable and the procurement performance is the dependent variable. The researcher was used ANOVA that describes the overall variance accounted for in the model. The Data collected through different instrument was structural, organize and framed to suit for analysis. The study used a descriptive statistic and inferential method to analyze collect data in a proper manner. After data collection, it was analyzed using simple statistical techniques (tables and percentages) and descriptive statistics (Mean, standard deviations, graphs and frequency) with the help of SPSS software.

3.8. Regression Model

In this study, multiple regression study was carried out to get the predictive value of the constructs considered. Since the model is established in such a way that each construct is being affected by other constructs, it is necessary to carry out a separate regression analysis against each variable which are considered to be affected by other variables.

3.9. Validity and Reliability

Statistical validity also used to measure the validity of the research though use of correct statistical procedure and instruments Neuman, (2007). The researcher first tried to address related and extensive literature to have complete data on the research topics. This comprehensive approach helps to ensure face and content validity of the survey instrument. Researcher reviewed an extensive literature to develop questions for the survey. Researcher was conduct pilot test on survey instrument (questionnaire) to check the questionnaire is complete, free from any biased and confusion word to

selected few respondents. The instrument and research method also revised and commented by to professional advisor and expertise before going to data collection.

Moreover, to insure the statistical validity of the study, the researcher was collect quantitative data using survey questioner and analysis the data using correct statistical instruments like descriptive statistics, inferential statistics, correlation and regression analysis to see the relationship of the variable and reach concrete conclusion.

3.10. Ethical Consideration

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

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1. Introduction

This chapter consists of quantitative and qualitative analyses by utilizing information which were provided from the general information and the basic information (for closed-ended, unstructured interview) of independent respondents.

In this research, the purpose of this study was to identify Factors Affecting Procurement Performance of higher public education institution (The Case of Selected public University). To achieve this purpose, data were collected from 332 respondents and the response rate is 89%. This commendable response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for respondents to fill in, and picked the questionnaires once after had been fully filled. The response rate demonstrates a willingness of the respondents to participate in the study.

The questionnaire is divided according to the variables where each variable is measured using a set of items. Reliability test has been performed by conducting pilot test for 24 sample respondents and the Cronbach's alpha test shows reliabilities are at 0.886 (See Table 4.1) for all the variables adopted, which is more than the standard (0.7).

Table 4.1: Reliability Statistics

Cronbach's Alpha	N of Items
.886	24

SPSS Output - Survey Questionnaire

All responses are measured on a seven point scale anchored on 1- "Very Strongly Disagree", 2- "Strongly Disagree", and 3- "Disagree" 4. "Neutral", 5- "Agree", 6- "Strongly Agree", and 7- "Very Strongly Agree. So the respondents are requested to indicate the extent that each statement characterized them using the Likert scale format from 1 (Very strongly Disagree) to 7 (Very strongly Agree).

4.2. Demographic characteristics of the respondents

This part of the analysis discusses about the general demographic characteristics of the sample respondents. To provide information about the respondent's age, sex, and educational background were included in the questionnaire due to their potential value to probe similarities or differences in the responses to various sections of the questionnaire. The information obtained from the questions contained in Part One is presented and discussed in table 4.2.below.

Table 4.2.Educational status, sex and service year Cross tabulation

Ser. No	Service Year	Education Status	Sex		Total	Percent
			Male	Female		
		Jimma University				
	Less than 2	PhD	2	1	3	0.90
		Second degree	8	8	19	5.72
		Degree	22	14	55	16.57
		Diploma	2	3	60	18.07
		Bonga University				
	Less than 2	PhD	0	0	60	18.07
1		Second degree	4	3	67	20.18
		Degree	3	4	74	22.29
		Diploma	0	1	75	22.59
		Mettu University				
	Less than 2	PhD	1	0	76	22.89
		Second degree	5	2	83	25.00
		Degree	4	4	91	27.41
		Diploma	1	0	92	27.71
		Jimma University				
	2-5 year	PhD	10	5	107	32.23
		Second degree	17	11	135	40.66
		Degree	13	15	163	49.10
		Diploma	0	0	163	49.10
		Bonga University				
	2-5 year	PhD	1	1	165	49.70
2		Second degree	3	3	171	51.51
		Degree	3	4	178	53.61
		Diploma	1	1	180	54.22
		Mettu University				0.00
	2-5 year	PhD	4	2	186	56.02
		Second degree	2	4	192	57.83
		Degree	3	3	198	59.64
		Diploma	1	1	200	60.24
Total			110	90		

Ser. No	Service Year	Education Status	Sex		Total	Percent
			Male	Female		
3			110	90		
		Jimma University				0.00
	Above 5 year	PhD	10	2	212	63.86
		Second degree	27	15	254	76.51
		Degree	17	8	279	84.04
		Diploma	3	6	288	86.75
		Bonga University				
	Above 5 year	PhD	2	1	291	87.65
		Second degree	2	2	295	88.86
		Degree	3	2	300	90.36
		Diploma	3	3	306	92.17
		Mettu University				
	Above 5 year	PhD	1	1	308	92.77
		Second degree	3	5	316	95.18
		Degree	6	5	327	98.49
		Diploma	2	3	332	100.00
Total			189	143		

Source: Survey Data 2021

The data showed high variety among respondents in terms of gender. In Jimma University 89(26.81%) of the respondents were categorized as female while the rest 131(39.46%) were male, Bonga University 24(7.23%) of the respondents were categorized as female while the rest 25(7.53%) were male and Mettu University 30(9.04%) of the respondents were categorized as female while the rest 33(9.94%) were male. The overall gender 143(43.07%) of the respondents were categorized as female while the rest 189(56.93%) were male.

The study results revealed that 92(27.71%) of the respondents less than 2 year experience the maximum percent of respondent education status of JU were degree 39.13% and the minimum percent of respond of BU and MU education status were 1.09% PhD and Diploma. The study results revealed that 108(32.53 %) of the respondents between 2 up to 5 year experience the maximum percent of respondent education status of JU were degree 28(25.93 %) and the minimum percent of respond of JU education status were 0 Diploma. The study results revealed that 132(39.76 %) of the respondents above 5 year experience the maximum percent of respondent education status of JU were second degree 42(31.82 %) and the minimum percent of respond of MU education status were 2(1.52%) PhD.

Table 4.3.Age of the respondents

	Age	Frequency			Percent
		Jimma Univesity	Bonga University	Metu University	
Valid	18-30	77	21	23	36.45
	31-40	86	17	28	39.46
	41-50	46	9	7	18.67
	Above 50	5	2	2	2.71
	Total	**214**	**49**	**60**	**97.29**
	Missing	6	0	3	2.71
	Total	**220**	**49**	**63**	**100**

Source: Survey Data 2021

In Jimma University most of the respondents' age is ranged between 31-40 years old 25.90 and 23.19% of them are at the age of 18-30. This indicates that most of the respondents are relatively young. Around 13.86% and 1.51% of the respondents have the age of 40 years and greater. Six respondents did not mention their age, hence considered as missing (1.81%).

In Bonga University most of the respondents' age is ranged between 18-30 years old 6.33 and 5.12% of them are at the age of 31-40. This indicates that most of the respondents are relatively young. Around 2.71% and 0.60% of the respondents have the age of 40 years and greater.

In Mettu University most of the respondents' age is ranged between 31-40 years old 8.43 and 6.93 % of them are at the age of 18-30. This indicates that most of the respondents are relatively young. Around 2.11% and 0.60% of the respondents have the age of 40 years and greater. Six respondents did not mention their age, hence considered as missing (0.90%).The increase in proportion for young age of respondents shows Selected public Universities were as whole characterized by young employees, especially after the re-launch of the company as most of the older employees were either terminated or given a chance to retire (secondary data of HR).

Table 4.4. Distribution of Sample size and sample frame by work unit

	Work Unit/Office	Frequency	Percent	Cumulative Percent
Valid	Jimma University Specialized Hospital	58	15.55	15.55
	College of Medical Science	56	15.00	30.55
	College of social science	4	1.02	31.57
	College of Law and Governance	3	0.91	32.48
	College of Natural Science	6	1.60	34.08
	Jimma Institute of Technology	76	20.28	54.36
	College of Agriculture & Veterinary Medicine	36	9.62	63.98
	College of Business & Economics	4	1.00	64.98
	College of Education & Behavioral Science	3	0.82	65.80
	Mettu University	0	0.00	65.80
	College of Natural Science	3	0.78	66.58
	College of Social Science	3	0.93	67.50
	College of engineering	24	6.47	73.98
	College of Agriculture & Veterinary Medicine	37	9.86	83.83
	College of Business & Economics	3	0.78	84.62
	College of Education &Behavioural Science	6	1.62	86.24
	Bonga University	0	0.00	86.24
	College of Business and Economics	3	0.89	87.13
	College of Engineering	25	6.58	93.71
	College of Agriculture	17	4.60	98.31
	College of Social Science	3	0.75	99.06
	College of Natural Science	4	0.95	100.00
	Total	373	100.00	

4.3 Procurement planning and its effect on procurement performance

Procurement planning is the future needs to procure goods and services for the organization to meet its strategic goals, thus, performing the procurement plan should be proactive; failure to request the required goods or services early will bring to postpone the work program to subsequent years, it is

also a means for under-utilization of the budget. As procurement is a long and time-consuming process, contract planning should “begin as soon as the agency need is identified, preferably well in advance of the fiscal year in which contract award is necessary” Thai, 2009).

Table 4.5.Response summary on procurement planning

No.	Questions	Scale	Percent of Universities			Mean of universities		
			Jimma	Bonga	Metu	Jimma	Bonga	Metu
1	In universitis the end users adequately plan their budget for the procurement items that are going to be procured	Strongly disagree	2.5	1.92	0	2.34	2.38	2.71
		Disagree	62.5	69	66.21			
		Neutral	22.03	24	26.83			
		Agree	12.97	5.08	6.96			
		Strongly agree						
	Total		100	100	100			
2	End users are raised their procurement need on time	Strongly disagree	14.23	16.07	18.92	2.27	2.35	2.21
		Disagree	51.08	58.02	56.01			
		Neutral	19.85	21.01	19.61			
		Agree	14.84	4.9	5.46			
		Strongly agree						
			100	100	100			
3	Universities provides clear specification for the procurement items that are going to be procured	Strongly disagree	17.23	19.75	16.95	2.16	2.26	2.25
		Disagree	53.01	46.25	58.15			
		Neutral	17	22.5	21.9			
		Agree	12.76	11.5	3			
		Strongly agree						
			100	100	100			
4	End users requisitions are planned and Programmed	Strongly disagree	2.3	1	1	2.39	2.41	2.36
		Disagree	66.65	62.65	71.38			
		Neutral	22.55	22.7	25.5			
		Agree	8.5	13.65	2.12			
		Strongly agree						
			100	100	100			
5	In SPU procurement plan prepared through involvement and participating of all end users	Strongly disagree	11.5	10.65	13.05	2.33	2.3	2.28
		Disagree	54.08	53.01	49.61			
		Neutral	25.61	24.03	23.96			
		Agree	8.81	12.31	13.38			
		Strongly agree						
			100	100	100			

Source: Survey Result (2021)

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

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

About 2.5 % and 1.92% of the respondents strongly disagree that in Jimma University and Bonga Universityrespectively end users adequately plan their budget for the procurement items that are going to be procured, 62.50%, 69% and 66.21% of the respondents disagree in Jimma, Bonga and Mettu University respectively, 22.03 %, 24% and 26.83%of the respondents neutral in Jimma ,Bonga and Mettu University respectively, 12.97%, 5.08% and 6.96% of the respondents agree in Jimma, Bonga and Mettu University respectivelyand none of the respondent strongly agree. This shows that more than half of the respondents disagreed that end users adequately plan their budget for the procurement items that are going to be procured. In Jimma, Bonga and Mettu University end users adequately plan their budget for the procurement items that are going to be procured, as indicated a mean of 2.34%,2.38% and 2.71% respectively.This indicates that the end users do not adequately plan their budget for the procurement items that are going to be procured.

Also About 14%, 16% and 19% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively end users are raised their need on time, 51.08%, 58.02% and 56.01 of the respondents in Jimma, Bonga and Mettu University disagree respectively, 19.85%, 21.01% and 19.61 of the respondents in Jimma, Bonga and Mettu University neutral respectively, 14.84%, 4.9% and 5.46% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that end users are raised their need on time. In Jimma, Bonga and Mettu University end users are raised their need on time, as indicated a mean of 2.27, 2.35 and 2.21 respectively.This implies that in SPU end users not raised their need on time.

About 17.23%, 19.75% and 16.95% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively clear specification for the procurement items that are going to be procured, 53.01%, 46.25% and 58.15 of the respondents in Jimma, Bonga and Mettu University disagree respectively, 17%, 22.5% and 21.9 of the respondents in Jimma, Bonga and Mettu University neutral respectively, 12.76%, 11.5% and 53% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that clear specification for the procurement items that are going to be procured. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.16, 2.26 and 2.25 respectively. This indicates that the public sector provides unclear specification for the procurement items that are going to be procured.

About 23%, 1% and 1% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively end users requisitions are planned and programmed, 66.65%, 62.65% and 71.38 of the respondents in Jimma, Bonga and Mettu University disagree respectively, 22.55%, 22.7% and 25.5% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 8.5%, 13.65% and 2.12% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that end users requisitions are planned and programmed. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.16, 2.26 and 2.25 respectively. This indicates that end users requisitions are not planned and programmed.

About 12%, 11% and 13% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively procurement plan prepared through involvement and participating of all end users, 54%, 53% and 50% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 26%, 24% and 24% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 9%, 12% and 13% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that procurement plan prepared through involvement and participating of all end users. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be

procured, as indicated a mean of 2.16, 2.26 and 2.25 respectively. This indicates that in SPU procurement plan all users does not involves.

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

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

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

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

4.4 Staff Competency and its effect on procurement performance

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

Table 4.6Response summary on Staff Competency

No.	Questions	Scale	Percent of Universities			Mean of Universities		
			Jimma	Bonga	Metu	Jimma	Bonga	Metu
1	In SPU the procurement activity is conducted by competent procurement staffs	Strongly disagree	3.8	5.72	1.8	2.48	2.29	2.21
		Disagree	52.23	50.01	65			
		Neutral	24.17	19	16.93			
		Agree	19.8	25.27	16.27			
		Strongly agree	0	0	0			
	Total		100	100	100			
2	Procurement staffs have Ability to apply public procurement principles and evaluate bidding document	Strongly disagree	17.7	20.6	19.3	2.15	2.26	2.25
		Disagree	41.2	45.4	42.01			
		Neutral	26.1	21.6	32.23			
		Agree	15	12.4	6.46			
		Strongly agree	0	0	0			
			100	100	100			
3	Procurement staffs have the ability to negotiate with users and suppliers	Strongly disagree	12.2	11.3	8.21	2.31	2.37	2.85
		Disagree	50.22	53.5	52.02			
		Neutral	21.1	19.6	24.96			
		Agree	16.48	15.6	14.81			
		Strongly agree						
			100	100	100			
4	SPU procurement staffs Have the necessary skills And competence to handle complex and strategic procurement items	Strongly disagree	9.11	1	18.41	2.52	2.46	2.42
		Disagree	52.02	59.9	47.7			
		Neutral	24.18	21.6	21.68			
		Agree	14.69	17.5	12.21			
		Strongly agree						
			100	100	100			
5	Procurment staffs have the ability to understand users need market environment and suppliers capacity	Strongly disagree	20.03	6.2	11.2	2.98	2.46	2.23
		Disagree	41.21	46.25	49.22			
		Neutral	31.98	29.8	22.1			
		Agree	6.78	17.75	17.48			
		Strongly agree						
			100	100	100			

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

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

About 4%, 6% and 2% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the procurement activity is conducted by competent procurement staffs, 52%, 50% and 65% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 24%, 19% and 17% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 20%, 25% and 16% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the procurement activity is conducted by competent procurement staffs. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.48, 2.29 and 2.21 respectively. This indicates that In SPU the procurement activity is not conducted by competent procurement staffs.

About 18%, 21% and 19% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Procurement staffs have ability to apply public procurement principles and evaluate bidding document, 41%, 45% and 42% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 26%, 22% and 32% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 15%, 12% and 6% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Procurement staffs have ability to apply public procurement principles and evaluate bidding document. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.15, 2.26 and 2.25 respectively. This indicates that the Procurement staffs have no ability to apply public procurement principles and evaluate bidding document.

About 12%, 11% and 8% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Procurement staffs have the ability to negotiate with users and suppliers, 50%, 54% and

52% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 21%, 20% and 25% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 16%, 15.6% and 15% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Procurement staffs have the ability to negotiate with users and suppliers. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.15, 2.26 and 2.25 respectively. This indicates that the Procurement staffs have no the ability to negotiate with users and suppliers.

About 9%, 1% and 18% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the procurement staffs have the necessary skills and competence to handle complex and strategic procurement items, 52%, 60% and 48% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 24%, 22% and 22% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 15%, 18% and 12% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the procurement staffs have the necessary skills and competence to handle complex and strategic procurement items. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.52, 2.46 and 2.42 respectively. This indicates that SPU procurement staffs have no the necessary skills and competence to handle complex and strategic procurement items.

About 20%, 6% and 11% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Procurement staffs have the ability to understand users need market environment and suppliers capacity, 41%, 46% and 49% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 32%, 30% and 22% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 7%, 18% and 17% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Procurement staffs have the ability to understand users need market environment and suppliers capacity. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.98, 2.46 and 2.23 respectively. This indicates that Procurement staffs have no the ability to understand users need market environment and suppliers capacity

In general, from the analysis all of the respondents agreed that factors related with staff competency having the greatest effects on public procurement performance in each universities, because as the above table indicates that all mean value is less than 3.This indicated that the lowest mean values are procurement staffs have on the ability to apply public procurement principles and evaluate bidding document and the procurement activity is not conducted by competent procurement staffs are the major factors of procurement performance in each universities.This means that the level of knowledge of SPU employees who is participated in the public procurementprocess needs improvement. Competent staff would ensure that items services are procured as and when the need is expected. Lysons and Gillingham, (2003) confirms this indicating that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

4.5 Procurement procedures and its effect on procurement performance

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

Table 4.7Response summary on procurement procedures

No.	Questions	Scale	Percent of Universities			Mean of universities		
			Jimma	Bonga	Metu	Jimma	Bonga	Metu
1	Tender evaluation conducted according to predetermined set criteria in the bid document	Strongly disagree	3	2.3	0	2.19	2.17	2.16
		Disagree	58.95	61.22	63.75			
		Neutral	23.95	26.4	25.29			
		Agree	14.1	10.08	10.96			
		Strongly agree						
	Total		100	100	100			
2	Contract management is conducted according to the bidding and contract document terms and conditions	Strongly disagree	13.95	15.9	19.09	2.29	2.31	2.23
		Disagree	51.04	58.02	56.2			
		Neutral	19.85	21.01	19.81			
		Agree	15.16	5.07	4.9			
		Strongly agree						
			100	100	100			
3	In University procured items are tested and inspected accordingly at the time of delivery	Strongly disagree	16.92	18.75	15.68	2.18	2.29	2.24
		Disagree	54.51	45.62	57.62			
		Neutral	16.02	23.62	22.01			
		Agree	12.55	12.01	4.69			
		Strongly agree						
			100	100	100			
4	In University bidders complaint is handled without bureaucratic system	Strongly disagree	3.25	2.5	2.55	2.29	2.44	2.21
		Disagree	67.21	61.95	70.22			
		Neutral	21.62	21.9	23.11			
		Agree	7.92	13.65	4.12			
		Strongly agree						
			100	100	100			
5	In University procurement performance is adequately monitor/evaluate	Strongly disagree	10.62	9.21	12.62	2.29	2.36	2.42
		Disagree	52.21	53.11	48.92			
		Neutral	26.82	24.65	24.21			
		Agree	10.35	13.03	14.25			
		Strongly agree						
			100	100	100			

Source: Survey Result (2021)

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

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

About 3%, 2% and 2% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the tender evaluation conducted according to predetermined set criteria in the bid document, 59%, 61% and 61% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 24%, 26% and 25% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 14%, 10% and 12% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the tender evaluation conducted according to predetermined set criteria in the bid document. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.19, 2.17 and 2.16 respectively. This indicates that in SPU tender evaluation does not conducted according to predetermined set criteria in the bid document.

About 14%, 16% and 19% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Contract management is conducted according to the bidding and contract document terms and conditions, 51%, 58% and 56% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 20%, 21% and 20% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 15%, 5% and 5% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Contract management is conducted accordingto the bidding and contract document terms and conditions. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.29, 2.31 and 2.23 respectively. This indicates that In SPU Contract

management is not conducted according to the bidding and contract document terms and conditions.

About 17%, 19% and 16% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the procured items are tested and inspected accordingly at the time of delivery, 55%, 46% and 58% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 16%, 24% and 22% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 13%, 12% and 5% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the procured items are tested and inspected accordingly at the time of delivery. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.18, 2.29 and 2.24 respectively. This indicates that in SPU procured items are not tested and inspected accordingly at the time of delivery.

About 3.25%, 2.5% and 2.55 % of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the bidders complaint is handled without bureaucratic system, 67%, 62% and 70% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 22%, 22% and 23% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 8%, 14% and 4% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the bidders complaint is handled without bureaucratic system. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.29, 2.44 and 2.21 respectively. This indicates that in SPU complaints are not handled and treated.

About 11%, 9% and 13 % of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the procurement performance is adequately monitor/evaluate, 52%, 53% and 49% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 27%, 25% and 24% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 10%, 13% and 14% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the

procurement performance is adequately monitor/evaluate. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.29, 2.36 and 2.42 respectively. This indicates that in SPU procurement performance is not adequately monitor/evaluate.

In general, from the analysis all of the respondents agreed that factors related with procurement procedures having the greatest effects on public procurement performance in each universities, because as the above table indicates that all mean value is less than 3.This indicated that the lowest meanvalues are Contract management is conducted according to the bidding to the bidding and contract document terms and conditions and evaluate bidding document and Tender evaluation conducted according to predetermined set criteria in the bid document are the major factors of procurement performance in each universities. This is also confirmed by Thai (2001), Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, and the potential for manipulation of contract public expenditure is slow, ineffective, expensive and often corrupt.

4.6. ICT utilization and its effect on procurement performance

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

Table 4.8Response summary on ICT utilization

No.	Questions	Scale	Percent of Universities			Mean of universities		
			Jimma	Bonga	Metu	Jimma	Bonga	Metu
1	Information Communication technology has brought satisfaction to all stakeholders in SPU	Strongly disagree	2.51	4.1	1	2.42	2.39	2.31
		Disagree	51.21	57.21	65.68			
		Neutral	26.42	16.6	15.3			
		Agree	19.86	22.09	18.02			
		Strongly agree	0	0	0			
			100	100	100			
2	Information Communication technology has brought satisfaction to all stakeholders in SPU Reduced paper work in SPU	Strongly disagree	16.7	19.6	18.3	2.51	2.46	2.41
		Disagree	41.2	46.4	42.01			
		Neutral	25.1	21.6	33.23			
		Agree	17	12.4	6.46			
		Strongly agree	0	0	0			
			100	100	100			
3	Information Communication Technology has play role to Increase quality goods/service delivery performance in SPU	Strongly disagree	15.2	12.3	9.21	2.27	2.37	2.23
		Disagree	49.22	49.5	52.02			
		Neutral	19.1	22.6	24.96			
		Agree	16.48	15.6	13.81			
		Strongly agree						
			100	100	100			
4	Information Communication technology has increased the output of procurement officers in SPU	Strongly disagree	11.11	1	17.41	2.29	2.33	2.26
		Disagree	52.02	56.9	46.7			
		Neutral	23.18	23.6	23.68			
		Agree	13.69	18.5	12.21			
		Strongly agree						
			100	100	100			
5	Information Communication Technology has speed up the procurement process	Strongly disagree	19.5	4.72	10.76	2.36	2.41	2.28
		Disagree	43.5	48.75	48.97			
		Neutral	30.98	28.8	22.69			
		Agree	6.02	17.73	17.58			
		Strongly agree						
			100	100	100			

Source: Survey result 2021

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

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

About 3%, 4% and 1% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Information Communication Technology has brought satisfaction to all stakeholders, 51%, 57% and 66% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 26%, 17% and 15% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 20%, 22% and 18% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Information Communication Technology has brought satisfaction to all stakeholders. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.42, 2.39 and 2.31 respectively.This indicates that Information Communication Technology has no brought satisfaction to all stakeholders in SPU.

About 17%, 20% and 18% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Information Communication Technology has support to reduced paper work in University, 41%, 46% and 42% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 25%, 22% and 33% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 17%, 24% and 7% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Information Communication Technology has support to reduced paper work in University. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.51, 2.46 and 2.41 respectively. Therefore, this indicates that Information Communication Technology has not support to reduced paper work in SPU.

About 15%, 12% and 9% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Information Communication Technology has play role to increase quality goods/service delivery performance in University, 49%, 50% and 52% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 19%, 23% and 25% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 16%, 16% and 14% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Information Communication

Technology has play role to increase quality goods/service delivery performance in University. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.27, 2.37 and 2.23 respectively. This indicates that Information Communication Technology has no play role to increase quality goods/service delivery performance in SPU.

About 11%, 1% and 17% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Information Communication technology has increased the output of procurement officers in University, 52%, 57% and 47% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 23%, 24% and 24% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 14%, 19% and 12% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Information Communication technology has increased the output of procurement officers in University. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.29, 2.33 and 2.26 respectively.This indicates that Information Communication Technology has not increased the output of procurement officers in SPU.

About 19.5%, 4.72% and 10.76% of the respondents strongly disagree that in Jimma, Bonga and Mettu University respectively the Information Communication Technology has speed up the procurement process, 43.5%, 48.75% and 48.97% of the respondents in Jimma, Bonga and Mettu University disagree respectively, 31%, 29% and 23% of the respondents in Jimma, Bonga and Mettu University neutral respectively, 14%, 19% and 12% of the respondents agree and none of the respondent agree strongly agree. This indicates that around half of the respondents felt neutral that the Information Communication Technology has speed up the procurement process. In Jimma, Bonga and Mettu University clear specification for the procurement items that are going to be procured, as indicated a mean of 2.36, 2.41 and 2.28 respectively. This indicates that in SPU Information Communication Technology has not speed up the procurement process.

In general, from the analysis all of the respondents agreed that factors related with ICT utilization having effects on public procurement performance in SPU, because as the above table indicates that majority mean value is less than 3.Information Communication Technology has no play role to increase quality goods/service delivery performance in SPU and Information Communication Technology has no play role to increase quality goods/service delivery

performance in SPU are the major factors of procurement performance in SPU. Therefore, utilization of ICT in SPU not increase quality goods/service delivery performance in SPU because most of the procurement functions are subjected to manual procedures that are slow, inaccurate and infective and advanced e-procurement technology still not applied in SPU. This implies that ICT usage no more contribution in the SPU procurement process.

Moreover, according to the research conducted by Boniface Ikumu and Chimwani, (2014). Thishas negative impact on procurement procedures since the public sector organizations cannot effectively monitor and coordinate procurement procedures. From this, one can understand that well organized, automated and integrated ICT systems can increase the procurement performance. ICT utilization that is one of the factors of procurement performance concluded that procurement systems were still largely manual, neither streamlined nor automated. This resulted inefficiency and losses.

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

4.8 Procurement Performance Evaluation

The researcher was evaluated SPU's procurement performance by five rights of Purchasing

Table 4. 10 SPU's Procurement performance Descriptive Statistics

Statements	Mean			Std.dev		
	Jimma Univesity	Bonga University	Metu University	Jimma Univesity	Bonga University	Metu University
With Right Quality	1.73	1.95	2.05	0.77	0.69	0.79
At Right Time	1.89	1.6	1.72	0.81	0.81	0.81
At Right Price	2.22	2.28	2.31	0.678	0.678	0.678
From the Right Source	2.33	2.35	2.31	0.66	0.68	0.65
Right Quantity	2.51	2.43	2.39	0.57	0.54	0.53

As indicated in the above descriptive statistics table, Jimma University procurement process team is working at the right quality with a mean value of 1.73, at the right time with mean value of 1.89, at the right price with a mean value of 2.22, from the right source with a mean value of 2.33 and at the right quantity with a mean value of 2.51. Therefore, from the result above, one can conclude that the procurement performance is very poor.Bonga University procurement process team is working at the right quality with a mean value of 1.95, at the right time with mean value of 1.6, at the right price with a mean value of 2.28, from the right source with a mean value of 2.35 and at the right quantity with a mean value of 2.43. Therefore, from the result above, one can conclude that the procurement performance is very poor.

Mettu University procurement process team is working at the right quality with a mean value of 2.05, at the right time with mean value of 1.72, at the right price with a mean value of 2.31, from the right source with a mean value of 2.31 and at the right quantity with a mean value of 2.39. Therefore, from the result above, one can conclude that the procurement performance is very poor.

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

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

4.9 Inferential Analysis

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

4.9.1 Tests and Statistical Analysis

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

4.9.1Normality Test

Multiple regressionsassume that variables have normal distributions. This means that errors are normally distributed, and that a plot of the values of the residuals will approximate a normal curve. Two common methods to check normality assumption include using a histogram (with a superimposed normal curve) and a Normal P-P Plot.

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

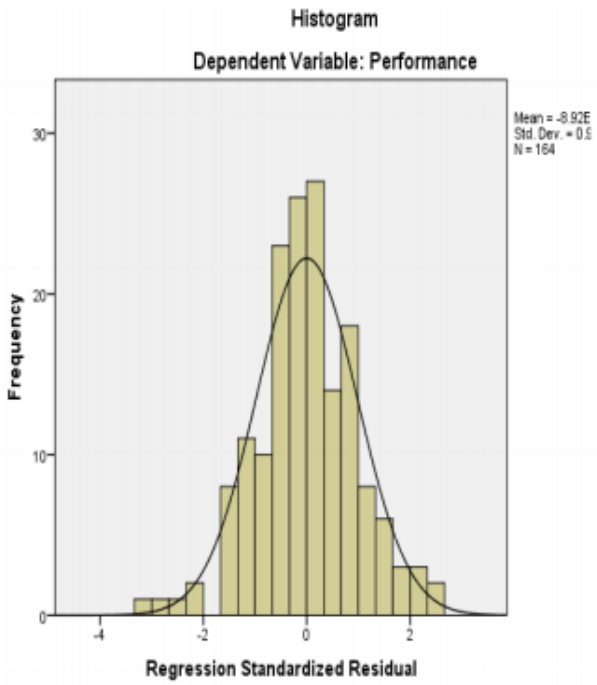
Table 4.11Tests of normality Procurement performance

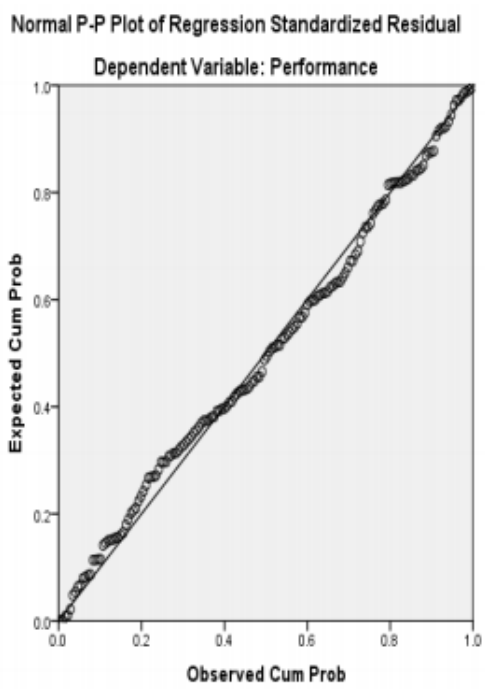
	Procurement Planning	Staff Competency	Procurement Procedures	Utilization of ICT	Procurement Performance
Skewness	.538	.443	.546	.640	.194
Std. Error of Skewness	.245	.245	.245	.245	.245

Source: Survey Result (2021)

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

Figure 4.1Normal distribution of the data





Where: PPE = Procurèrent Performance

4.9.2 Corrélation Relation

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

Table 4.12Pearson Correlation Information

		Procurement Planning	Staff Competency	Procurement procedures	Utilization of ICT	Procurement performance
Procurement Planning	Pearson Correlation	1	.121	.484**	.327**	.681**
	Sig. (2-tailed)		.239	.000	.001	.000
	N	332	332	332	332	332
Staff Competency	Pearson Correlation		1	.303**	.331**	.578**
	Sig. (2-tailed)			.003	.001	.000
	N		332	332	332	332
Procurement Procedures	Pearson Correlation			1	.346**	.703**
	Sig. (2-tailed)				.001	.000
	N			332	332	332
Utilization of ICT	Pearson Correlation				1	.631**
	Sig. (2-tailed)					.000
	N				332	332
Procurement performance	Pearson Correlation					1
	Sig. (2-tailed)					
	N					332

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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

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

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

4.9.3Multicollinearity Assumption

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

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

A. Assumption Test using Pearson Correlation Coefficient

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

B. Assumption Test using Collinearity Statistics

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

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

Table 4.13Collinearity statistics value

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

Source: Survey Result (2021)

4.9.4 Auto-correlation Assumption /Durbin–Watson test/

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

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

4.10 Interpretation of Model Summary

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

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

4.11. Regression Analysis

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

Table 4.14Model Summary Table

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

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

In the above table 4.12, multiple correlation coefficient R of 0.927 indicates that the correlation among the independent and dependent variables is a strong positive relationship; as a result working on those selected factors have positive impact on procurement performance of the SPU. The coefficient of determination, R square is interpreted as 85.9 % of the variation in the dependent variable procurement performance is explained by the independent variables (i.e. Procurement planning, Staff Competency, Procurement procedure, Utilization of ICT) and the remaining percent (14.1%) is explained by other dimensions.

4.12 Model Generalization

The model generalization value is calculated by the difference between R square and adjusted R square Field, (2006). As a result model generalization summary of procurement performance is calculated as the difference between adjusted R square and R square. Referring table 4.14 above, value of adjusted R square and R square is, respectively. Hence the difference between R square and adjusted R square is give the shrinkage value 0.853-0.859 = 0.006, about 0.6%. This shrinkage means that if the model was derived from the population rather than a sample, it would

account for approximately 0.6 % less variance in the outcome. Therefore, we can conclude that if this model is applied on the total population, only 0.6 % of variance occurs on the result.

4.12.2 Analysis of Variance /ANOVA/ Test

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

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

Table 4.15.ANOVA table

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

a. Dependent Variable: Procurement performance

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

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

4.12.3 Regression Coefficients or Model

Standardized regression coefficient (Beta) is the estimated coefficient indicating the strength of relationship between an independent variable and dependent variable expressed on a

standardized scale where higher absolute values indicate stronger relationships (range is from -1 to 1) William and Barry, (2010).

Table 4.16Regression Standardized Coefficients

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

a. Dependent Variable: Procurement Performance

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

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

The established regression equation was

Y = -.361 + .302X1 + .269X2 + 0.284X3 + 0.261X4

Whereby

Y = Operational efficiency

X1 = Procurement planning

X2 = Staff competency

X3 = Procurement procedure and practice

X4 = Use of IT in procurement process

As per the SPSS generated table above, the equation ($Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4$) becomes: Y = -.361 + .302X1 + .269X2 + 0.284X3 + 0.261X4.

According to the regression equation established, taking all factors into account (Procurement planning, Staff, Procurement procedure and practice, and Use of IT in procurement process) constant at zero, operational efficiency will be increased by -0.361.

The data findings analysed also shows that taking all other independent variables at zero, a unit increase in staff competency will lead to a 0.269 increase in operational efficiency, a unit increases in procurement process and procedure will lead to a 0.284 increase in operational efficiency and a unit increase in use of IT for procurement process will lead to a 0.261 increase in operational efficiency,

As the indicated in the above table procurement planning had a significant value of 0.000 which is <0.05 P value. So, a unit increase in procurement planning will have effect in increasing of operational efficiency. The findings are in agreement with Basheka (2008) who indicated that the procurement plan has the potential to cut costs, shorten timescales and enhance stakeholder relationships, reduce risks and improve overall performance. These findings also correspond with the previous findings by Hamza et al (2016) and Kioko&Were (2014) who observed that the level of preparing procurement plans increases the performance of the procurement function tends to increase.

As indicated in the table above staff competency had .000 level of significance.So, a unit increase in staff competency will have effect in increasing of operational efficiency. This result was similar to the results that Samson et al. (2016) found. Samson et al. (2016) found that staff competency influenced public procurement performance in Tans-nozia County. Similarly, a study conducted by Kiage (2013) on “Factors affecting Public Procurement Performance in Local Government Authorities in Tanzania” revealed that staff competency procurement is an important factor of performance of the procurement function in the local government authorities in Tanzania and recommended that procurement staff should possess sets of skills appropriate in procurement activities.

Procurement procedure and practice had .000 level of significance, the results of this analysis were also consistent with the findings by Hailemariem (2014) and Kassie (2014), who revealed that the existence of internal control in the procurement processes strongly correlated with procurement performance in public entities. They concluded that the existence of an adequate internal control system in the public sector procurement processes is very important to increase the effectiveness of procurement function.

As indicated in the table above the use of IT for procurement process had 0.000 level of significance. Therefore, we could conclude that ICT utilization has a positive effect (influence) on the public procurement performance of the administration. This outcome is consistent with the results of Aberu (2017) who found that the utilization of ICT has an effect on the procurement performance of PPPDS. Similarly, the above result was also in agreement with the results of Amayi and Ngugi (2013), which conclude that the existence of ICT usage in procurement processes increases the procurement performance in public entities.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Introduction

This chapter summarized what the researcher has done so far and answered the research questions stated in the beginning. Summary of findings generated from the research are obtainable in the chapter also. The researcher discussed the findings of the study and gives suggestions for future research and finally provided some recommendations to the management of the Company.

5.2. Summary of Major Findings

The research aims at examine of factors affecting public procurement performance in Ethiopia: the case selected public Universities includes Jimma, Bonga and Mettu University. Accordingly to meet this objective, the researcher has developed a questionnaire from the related literature to collect and analyze the opinions of the study sample. The following findings are obtained;

5.2.1 Procurement Planning

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

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

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

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

5.2.2 Staff Competency

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

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

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

5.2.3 Procurement Procedures

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

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

From regression model, a unit increase in procurement procedures will lead to a 0.329 increase in procurement performance of Jimma, Bonga and Mettu University. This implies that

procurement procedures accounts for 32.9% of variations in procurement performance. The results have shown that contractmanagement and tender evaluation not conducted according to the bidding and contract document terms and conditions in technical document evaluation has significant on procurement performance at Jimma, Bonga and Mettu University. The study found out also there was poor contract management at the Jimma, Bonga and Mettu University characterized by inaccurate tender evaluation and lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without involvement of procurement function. This is also confirmed by Thai (2001), Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, and the potential for manipulation of contract public expenditure is slow, unsuccessful, expensive and often corrupt.

5.2.4 Utilization of Information Communication Technology

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

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

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

5.3 Conclusion

The general objective of this study was to assess the factors that affect public procurement performance in Ethiopia: case of selected public universities. So as to know the effect of procurement practice on operational efficiency, the researcher's prior task was identifying the determinant factors of the procurement performance. These factors are Procurement planning, Use of IT in procurement process, Staff competency, Controlling mechanism and Procurement procedure and process. The sampledpopulation consisted of three selected public university

procurement In order to empirically testthe effect of the proposed variables, a conceptual model was developed. Both primaryand secondary data were collected. The main data collection tool employed was a self-administered questionnaire measured in a 5 points Likert scale and interview guide. Datawere analysed through descriptive and inferential analyses. Based on the study findings,the following are the main conclusions that can be drawn from this study;-

Firstly, regarding the effect of procurement planning on the performance of public procurement in selected public universities in Ethiopia, the study concludes, there is a positive correlation and significantly related between procurement performance and procurement planning. From regression model, a unit increase in procurement planning will lead to a 0.357 increases in procurement performance at selected public university. This implies that planning accounts for 35.7% of variations in procurement performance. This study found out the goods/services or works not being procured on time because the work programs affected by procurement planning i.e. incomplete procurement plan and urgent/unplanned procurement requisitions are influence the procurement performance of selected public university. The results further revealed that the departments prepared annual procurement plans and that the procurement plans were prepared and the goals set participatory. Procurement plans therefore influence procurement performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting andplanning and therefore with adequate provision of funds due to procurement plans, performance is assured.

Secondly, regarding competency of staff effect on the performance of procurement in selected public universities, the finding confirmed that the majority of respondents pointed out that the staff competency in the department impacted positively on procurement performance. The Pearson's correlation coefficient also assured that, there is a positive correlation and significant relationship between procurement performance and staff competency. Besides, the regression model also assured, a unit increase in staff competency will lead to increases in procurement performance at Jimma, Bonga and Mettu University.

Thirdly, regarding the influence of procurement procedure on procurement performance in selected public universities, the finding confirmed that, procurement procedures have a positive impact on procurement performance. From Pearson's correlation coefficient, the finding assured there is a positive correlation and significantly relationship between the procurement performance and procurement procedure.

Fourthly, regarding the adoption of Information Communication Technology effect on procurement performance in selected Public Universities, the study confirmed thatthe utilization of ICT impacted positively on procurement performance. From Pearson's correlation coefficient, there is a positive correlation and significantly related between procurement performance and utilization of ICT.

Therefore, the study concluded that procurement planning; staff competency, ICTutilization, and internal control have a significant positive effect on procurementperformance of the administration. Here, procurement planning and staff competency arethe most influential predictors to the outcome (procurement performance) of theadministration followed by ICT utilization and internal control respectively. This indicates that having organized procurement plans,motivated and well-qualified staff, successful automated procurement systems and adoption of ICT systems, are crucialfor enhanced public procurement performance in Jimma, Bonga and Mettu University.

5.4 Recommendations

Based on finding of the study, conclusion drawn in line with the study objectives, the following points are suggested by the researcher in order to improve procurement performance of Jimma, Bonga and Mettu University.

- Public organizations should struggle to strengthen their procurement plan and make a good culture so as to ensure successful implementation of their organizational plan and to attain their organizational goals and objectives. Procurement plan is specifically designed to assure that funds are available for the procurement, that the proper method of procurement is undertaken, and that the type of contract chosen will be suitable for the particular procurement of goods, works, or services. Since the results of the data processed revealed poor planning culture by the users, top level managers should urge the users to plan what they want to be performed the next budget year. Awareness creation forum should be prepared and at the same time, Short term training with regard to as to how to plan should be organized. In addition, Integration among procurement and property administration and other work processes should be strengthen.
- Universities continue improving reduction in quality complaints, by preparing clear specification, evaluating bidders according to the bid document set criteria, putting in place competence inspection team, installing effective inventory management and

reliable product quality and conducting market evaluation to achieve right price. In order to address the above factors identified as far as quality management was concern, the company should use effective procurement automation that will make it attain on time release.

- Universities efforts and mechanisms put in place to achieve effective implementation of their tasks in order to meet their strategic objectives and full fill their legal mandates, it is clearly imperative to put in place the following measures to re-enforce the existing mechanisms and practices.
- The investigator also recommends that procurement plans shall prepare on time with complete information by end users.Procurement plan must be fully integrated with the strategic plan and budget of the public administration. Procurement plan is specifically designed to assure that funds are available for the procurement, that the proper method of Procurement is undertaken, and that the type of contract chosen will be appropriate for the particular procurement of goods, works, or services.
- The researcher recommended that the SPU should enhance the utilization of IT in the entire business process which is inter-linked to procurement. Enterprise Resource Planning System that would integrate e-procurement into the entire business operations of the organization which would create benefits to all the clients very useful to communicate easily with the user department, procurement unit, and suppliers, require procurement information output for decision making, this in turn will advance transaction time and accuracy.

5.5. Suggestion for Further Study

This research is conducted only on selected public universities. Therefore, the researcher recommends that other researchers include Private Universities of Ethiopia.This study limits itself to four factors, which explain about 85.9% of the factors affecting the SPU. That means 14.1% is explained by other factors which are not included or studied by this research. The study was limited to four attributes of procurement performance and few variables of procurement performance measures. Further research is recommended on factors such as organizational structure, resource allocation and unethical practice.

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ANNEX: A

Questionnaires

Jimma University College of Business and Economics

Department of Logistics and Supply Chain Management

Dear respondent,

My name is BerhanuAbebe and I am carrying out an academic research on the factors affecting public procurement performance in Ethiopia: the case of selected public Universities.

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

Your co-operation and assistance will be highly appreciated. If you need any clarification or information: **Mob.0912790159**

Part One: Demographic data

1. Educational Status:

Diploma ☐ First Degree ☐

Second DegreePhD ☐ ☐

Other ☐

2. Age 18-30 ☐ **31-40** ☐ **41-50** ☐ **above 50** ☐

3. Relevant work experience:

Less than 2 years ☐ **2-5 years** ☐ **above 6 years** ☐

4. Please indicate your designation/ position

Head of /department/ ☐ unit/division/directorate ☐

Senior expert ☐

Other Please specify, if other_____

Part Two: Procurement planning

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

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

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

……

……

Part Three: Staff Competency

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

S. N.	Staff Competency related questions	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
5.1	In university the procurement activity is conducted by competent procurement staffs					
5.2	Procurement staffs Have ability to apply public Procurement principles and evaluate bidding document					
5.3	Procurement staffs have the ability to negotiate with users and suppliers					
5.4	University procurement staffs have the necessary skills and competence to handle Complex And strategic procurement items					
5.5	Procurement staffs have the ability to understand users Need market environment and suppliers capacity					

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

……

……

x

Part Four: procurement procedures

6. To what extent do you agree **procurement procedures** influence procurement performance in selected public universities?

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

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

……

……

XI

Part Five: Information Communication Technology utilization

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

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

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

……

……

Part Six: procurèrent performance évaluationrelated questions

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

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

Part: Eight

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

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

Thank you!