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Challenges in Procurement of Pharmaceuticals in the Ethiopian Health Institutions

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Abstract
Public procurement is crucial to government service delivery. Procurement of Pharmaceuticals in public hospitals has faced challenges that affect service delivery. Public procurement is a key tool to the overall achievements of development goals such as reducing poverty and providing health, infrastructure, education and other services hence immensely contribute to best utilization of public resources. The limited public resources should be properly managed to get the most out of these resources. Despite its importance, limited scientific research has been undertaken to examine the Challenges of procurement in public institutions in the case of Health institutions. This study aimed to describe challenges in procurement of pharmaceuticals in Jimma University Specialized Hospital (JUSH). Specifically, the study sought to describe challenges in regards to the procurement process, procurement planning, staff competency, and information communication technology and procurement organization structure. The study was conducted through a descriptive design of research. The targeted respondents were 146 and comprise of Administration Officers and functional head that are members of tender committee and/or directly/indirectly involved in pharmaceutical procurements, Supply Chain and pharmaceuticals professionals, and pharmacy service professionals, Department heads of service delivery units and nurse heads of service delivery units in Jimma University Specialized Hospital. A structured questionnaire and interview as a data collection instrument were used. The field data were statistically analyzed using descriptive statistics and narrative summary analyses. Findings indicate that lengthy pharmaceuticals procurement process, lack of employee competency ,poor culture of pharmaceuticals procurement planning are the most serious challenges in pharmaceuticals procurement and fully centralization of pharmaceuticals procurement activities and in efficient use of information communication technology are the next most serious challenges in pharmaceuticals procurement Jimma University specialized Hospital.
Keywords: Procurement, Challenges, pharmaciuticals, Ethiopia, Health institutions, procurement Organizational structure
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INTRODUCTION

Public procurement is a key tool to achieve objectives of an economic, environmental and social nature gaining much attention globally over the past decades. In developing countries, it is one of the main instruments to the achievement of development goals such as reducing poverty and providing health, infrastructure, education and other services hence immensely contribute to best utilization of public resources (Mlinga, 2009). In particular, pharmaceutical procurement process is inherently complex because it involves the coordination of MOH agencies, funding sources, suppliers, and manufacturers. However, in low-income countries, the process is often constrained by limited human resources, inadequate financing, an absence of information on prices and suppliers, lack of awareness of government and donor regulations, overlapping systems, and unsynchronized or outdated rules and guidelines. These constraints can contribute to delayed shipments, high prices, and, ultimately, reduced access to essential medicines for consumers. The lack of capacity to select, forecast, and quantify product requirements, and to manage the procurement process, disrupts the distribution of health commodities to the client. In this context, commodity security cannot be strengthened unless procurement functions are made more effective (MacManus, 2002).

The World Health Organization defines access to quality medicine as priority for citizens. It needs to be available at all times in adequate amounts, in appropriate dosage and quality and at an affordable price for individuals and communities (WHO). To ensure that people have access to essential and quality medicines, a functioning and sustainable procurement is necessary, which includes proper forecasting and supply planning, timely procurement, appropriate warehousing and effective transportation systems.(WHO, 2011). However, fully one-third of the world's population does not have access to essential medicines (WHO, 2000). In Sub-Saharan Africa and South Asia the figure is closer to 50 percent (WHO, 2001). The problem is in part financial. The combination of donor support, multilateral loans, country financing, and out-of-pocket expenditures is inadequate to meet the growing need among poor populations for essential medicines, including contraceptives and other RH products. On closer examination, the inability of country programs to procure medicines effectively and efficiently is also a major cause of poor access. Procurement agencies in parts of the world where access is low are paying many times more than standard international reference prices for essential medicines, which effectively reduces

product availability in clinics and hospitals (HAI ,2006).

Consequently, in most developing countries, the procurement function is transitioning from a clerical non-strategic unit to an effective socio-economic unit that is able to influence decisions and add value. Developing countries in one way or another have reformed their public procurement regulations. The reforms have not been limited to regulations only, but included public procurement process, methods, procurement organization structure, and the workforce (Callender & Mathews, 2000). Nonetheless, most developing countries are facing a problem of rapid changes in procurement requirements. The changes are impacting pressure on how the procurement function performs its internal and external processes and procedures in order to achieve its objectives. The ability to realize procurement goals is influenced by internal forces and external forces. Interactions between various elements, professionalism, staffing levels and budget resources, procurement organizational structure whether centralized or decentralized, procurement regulations, rules, guidelines, and internal control policies, all need attention and influence the performance of the procurement function (Gattiker & Carter, 2000).

According to recent studies (Gitau, 2013; Josephat & Susan, 2013; Wafula, 2014; Amemba, Nyaboke, & Mburu, 2015; Ondigi, 2015) revealed that there are many factors both from internal and external environments that are challenges to public procurements such as procurement process, ICT adoption, Ethics & supplier relationship management, contract monitoring & control, choice of procurement procedure & communication, stakeholders, resource dependency, leadership style & technology. However, none of these studies focused on challenges in the procurement of pharmaceuticals and factors such as procurement process, procurement planning, staff competency, and information communication technology and pharmaceuticals procurement organizational structure in a comprehensive manner. Likewise, most of these studies have been conducted in other countries with varying contexts of demographics, economic, political and environmental factors and institutional settings than Ethiopian public health institutions. Therefore, this study sought to fill this research gap by assessing challenges in procurement pharmaceuticals in the Ethiopian health institutions with especial focus on Jimma University Specialized Hospital.

The study was addressed the following specific objectives;

To describe challenges in the Pharmaceuticals procurement process in Jimma University Specialized Hospital.
To investigate challenges in pharmaceuticals procurement planning in Jimma University Specialized Hospital
To assess employee's competencies in pharmaceuticals procurement in Jimma University Specialized Hospital
To investigate how well Jimma University specialized uses ICT for pharmaceuticals procurement.
To assess the organizational structural of pharmaceuticals procurement of Jimma University Specialized Hospital

Significance of the Study

This study is believed to help for the clear understanding of the challenges of Pharmaceuticals procurement at Jimma University Specialized Hospital. The result of the study serves various purposes. Mainly public health institutions will benefit from it by using the information from the study to work on areas which are important to improve the performance of pharmaceutical procurement process by applying the recommendations, which would help to save significant amount of public resource that otherwise, would be wasted. The researcher also gained the benefits of being acquainted with research skills in the endeavor. Finally, the study could encourage other researchers to conduct similar researches on the subjects under investigation.

LITERATURE REVIEW

Theoretical Overview

Meaning of Procurement

Quayle (2006) procurement defined by quoting Compton and Jessop as the obtaining by various means (loan, transfer, hire purchase) of supplies and services with or without consideration. According to Lysons and Farrington (2006), it is defined as the processes undertaken by the organization unit that, either as a function or as part of an integrated supply chain, is responsible for procuring or assisting users to procure, in the most efficient manner, required supplies at the right time, quality, quantity and price and the management of suppliers, thereby contributing to the competitive advantage of the enterprise and the achievement of its corporate strategy.

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

Therefore, from the definitions presented above, it is possible to conclude that procurement entail that it is a process and parts of the supplies management process works to bring effective and efficient management of resource, engaged in acquisition of materials and services by various means, the acquisitions are based on the right manner (time, quality, quantity, price, source) and developing its own strategy that relates to the corporate strategy.

Public Procurement

Public procurement is the process of the acquisition, usually by means of a contractual arrangement after public competition, of goods, services, works and other supplies by the public entity. The public procurement process spans the whole life cycle from initial conception and definition of the needs through to the end of the useful life of an asset or the end of a contract. Procurement is an important part of efficient drug management and supply and is critical for all levels of health care institutions. An effective procurement process ensures the availability of the right drugs in the right quantities, available at the right time, for the right patient and at reasonable prices, and at recognizable standards of quality (WHO, 2007).

Procurement Process

Lysons and Farrington (2006) defined a process as a set of sub processes or stages focused on achieving an output. Procurement process is a cycle or chain that shows the activities that procurement goes through in obtaining a given need for operational and strategic purpose. Wan Lu (2007) argues that process consists of flow chart and blue print to describe a process in pictures using symbols with arrow lines connecting each operational step. (Weele, 2010) has described and grouped the process of procurement into six different stages as specification, select suppliers, give contract or ordering, expediting and evaluation of the entire procurement process. (Monczka, Trent, & Handfield, 2003) argue in the same line as Weele, but presented the procurement process as cycle with five stages instead of six that Weele is talking about.

These stages will differ according to the nature of procurement and the individual organization in question. This means that, if the product is straight re-buy, modified re-buy and new task all together will determine the stages that will be involved or chosen in obtaining that particular need(s) from an identified and evaluated source. Emmett and Crocker (2008) suggested that procurement or procurement process has ten stages from need identification to payment of respective procurement. This is so because most organization combines some stage as one in the process to reduce the lead time and other administrative cost. For instance, some organizations or corporate institutions join the expediting and evaluating as one stage. Based on these facts, there is no unique number of stages of the procurement process. Most writers in this discipline are all in agreement of the fact that, some of the stages will not feature in every procurement activity some of these stages will be taken out if the order is a repeated order. For example, source identification and selection will be omitted if these source have be prequalified initially to assess their capabilities as is been done in some public sector institutions. (Lyson & Gillingham, 2003) and (Weele, 2010) introduced a modern way of conducting procurement activity by the use of electronic means (e-procurement). They suggested that, the long process can be shortened through the use of electronic procurement.

Procurement Planning

Generally, planning enables organizations to, among other things, determine performance standards, establish overall direction, anticipate and avoid future problems and reduce the risks of uncertainty, identify and commit resources towards the achievement of goals, determine and develop performance standards, and effectively coordinate various activities in the organization (PPB Manual, 2005). The decision made while planning for the purchase and delivery is very important particularly these may affect the overall schedule and total cost of the operations. Inaccurate planning may result in material shortages or surpluses, cash flow problem and unnecessary delays. Planning procurement which includes operation and arrangement depends on the skill level of the procurement staff. The use of prototype planning models in facilitating pre-tender and procurement processes have found out to be accurate planning which is very important for a successful and expeditious procurement process.

Electronic Procurement

Due to advancement in technology, business entities have been involving IT system in the procurement process. This is a means of streamlining and automating their purchasing and other processes; current competitive business environment have recorded IT system as a means of enhancing the purchasing process (Kishor, 2006). Oslomobekov et al. (2002) noted that an electronic commerce tool ensures two major elements of the procurement processes: Communication and Transaction aspects. Studies have shown that the E-commerce tools and IT solutions have an influence on procurement related processes. Most organizations have achieved: reduction in cost of purchases (Subramanian & Shaw, 2002; Radovilsky & Hedge, 2004), reduction in the lead time (Davila et al., 2003; Radovilsky & Hedge, 2004), reduction in number of suppliers (Davila et al., 2003), increasing in the number of goods supplied by the main suppliers (Muffatto & Paya, 2004), inventory Savings (Subramaniam & Shaw, 2002) and reduction of purchasing prices (Davila et al., 2003).

Staff Competency

Boyatzis (2008) define competency as a capability, ability or an underlying characteristic of an individual which is casually related to effective or superior performance. It is a set of related but a different set of behavior organized

around an underlying construct, which we call the "intent". The behaviors are alternate manifestations of the intent, as appropriate in various situations or times. Competence is a cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act efficiently in a job or situation. Competencies indicate sufficiency of knowledge and skills that enable someone to act in a wide variety of situations (Aketch & Karanja, 2013). According to Russell (2004) professionalism in public procurement relates not only to the levels of education and qualifications of the workforce but also to the professional approach in the conduct of business activities.

Majority of practitioners involved in public procurement lacked requisite professional expertise and knowledge of the law governing the practice. This, therefore, places them at a disadvantage in ensuring that the achievement of good procurement is professionalism. Professionalism is the discipline whereby educated, experienced and responsible procurement officers make decisions regarding purchase operations (Ibid.). Therefore, procurement professionals needs to be well-qualified and knowledgeable in the field of procurement activities like supply chain networks, the various agencies, knowledge of policy, customers rules, budgeting, taxation, commercial, logistical and customs documentation as well as knowledge of commercial trade rules and terms (KPMG, 2012).

Procurement Organization Structure

The structural formation of procurment function is dependent on numerous factors, such as, nature of business, availability of required items, and elasticity of demand, condition and nature of market and so on. Its liberty of the management to choose the appropriate one that will meet the operational requirement. The available structures of purchasing function most commonly used are: centralized procurment, decentralized procurment and hybrid (Leenders & Johnson, 2000). Procurement is fully centralized when all the relevant decisions (what, how and when) to purchase products, whether by competitive tendering procedures or by negotiations, are in the hands of a company headquarters or a central public unit dedicated to buying products to satisfy the needs of the company or public offices (Dimitri et al., 2006b).

Procurement is decentralized when divisions or local administrations are delegated the power to decide how, what and when to procure. In between full centralization and full delegation there is a wide range of intermediate procurement models where central and local purchasing share the power on purchasing decisions, that are classified as hybrid procurement systems (Ibid.). In addition, according to Dimitri et al. (2006b) in between full centralization and full delegation there is a wide range of intermediate procurement models where central and local purchasing share the power on purchasing decisions, that are classified as hybrid procurement systems. Since the disadvantages of both a centralized and decentralized structure are so significant, firms are increasingly using hybrid structures (Leenders & Johnson, 2000).

Empirical Review

Here is a discussion made on the link between what has been done previously and the current investigation in public procurement related area.

Gitau (2013) conducted a research on the determinants of Procurement Performance at the Ministry of Education (Kenya). The study focused on problems of the Ministry of Education (MOED) system of Kenya is in a bad state and the heavy investment is not yielding commensurate returns. There is urgent need to rethink the delivery of public education and this demands the attention of highest level of leadership, so as to make misappropriation of funds and questionable procurement processes a thing of the past. So, the research tried to find factors that influence the performance of procurement performance at ministry of education in Kenya. The study found out that performance of procurement in the MOED is largely influenced by the following determinants: stakeholders, resource dependency, leadership style and technology. The result of the study concludes that the magnitude of influence on procurement performance by stakeholders, resource dependency, leadership styles and technology is undoubtedly rife. Finally, the researcher recommends managers should focus on mainly absorbing certain resources or expertise staff within the organization to overcome dependency on external resources. However, the study didn't mention the role of procurement planning and skilled manpower in facilitating the procurement activity in the study area.

Josephat and Susan (2013) were conducted a research on factors affecting efficiency of procurement functions at the public institutions in Kenya - a case study of Supplies Branch Nairobi. The study established that existing legal framework and organizations culture affects the efficiency of the public procurement function. Factors like political influence, fairness in awarding procurement contracts, adherence in procedures, bureaucracy and corruption affect the efficiency of the public procurement function at the public institution in Kenya. From the findings the study concludes that staff competencies affect greatly the efficiency of procurement function. To this end, employees need to acquire core competencies like knowledge, skills, experience and abilities to enhance public procurement function efficiency in public institutions. The study also concluded that supplies Branch did not embrace modern technology in the procurement function. Hence, it implies that those public institution in

Kenya not using ICT in the procurement function do not benefit from its advantages of reduced cost of holding stock, reduced paper work, increases transaction effectiveness, increases quality of goods and services, reduced lead times and improved quality of decision making. The study also found out that proper procurement records management helps in giving authentic and reliable information and has an impact in procurement function efficiency.

Similarly, Wafula (2014) conducted a study on the "*Procurement practices affecting effective public projects implementation in Kenya: A case study of Kenya Civil Aviation Authority*". The study focused on to identify factors that influence successful public sector project implementation and best practices in public project implementation. The research tried to find out that the majority of the respondents held the view that most projects in Kenya did not finish on time and were completed at a cost higher than the originally envisaged contract cost. A high percentage answered that procurement is planning; contract monitoring & control, choice of procurement procedure and communication are important procurement practices in project implementation. The study also recommended that public organizations should be commended for the efforts and mechanisms put in place to achieve effective implementation of projects in order to meet their strategic objectives and fulfill their legal mandates, it is clearly imperative to put in place the following measures to re-enforce the existing mechanisms and practices: Public organizations should strive to strengthen their procurement planning and contract monitoring & control systems so as to ensure successful projects implementation. However, the study didn't touch the consequence of having unskilled manpower in the findings part.

Amemba, Nyaboke, and Mburu (2015) conducted a research on challenges affecting Public procurement performance process in Kenya. The research aimed at identifying the challenges facing public procurement performance in the Kenyan public sector. The study highlighted that, procurement process, ICT adoption, Ethics and supplier relationship management as key challenges that affects public procurement performance The paper concluded that public procurement performance in Kenya can only be improved through review of existing legislations to encourage extensive use of technology in the management of the procurement process, fostering of long term buyer-supplier relations and stakeholder involvement through trainings and sensitization on practicing ethical behavior when conducting procurements. In this study the research didn't mention the role of procurement planning and skilled manpower in facilitating the procurement activity in the study area.

Ondigi (2015) was made an investigation on factors affecting public procurement of hospital supplies in public health institutions in Kenya, kisii teaching and referral hospital. The research study focused on to identify internal factors affecting public procurement of hospital supplies in public health institutions; and tried to find out that ICT adoption affected procurement process at Kenyan hospitals to greater extent. Also ethics affected procurement process at the Kisii teaching and referral hospital. The study further recommends a similar study to be conducted in other hospitals. However, the study didn't touch factors: procurement process, procurement planning, employee competency, and procurement organizational structure.

Conceptual Framework

The study was applied the below framework to investigate challeges in procurement of pharmacuitical in Jimma university specialized hospital.

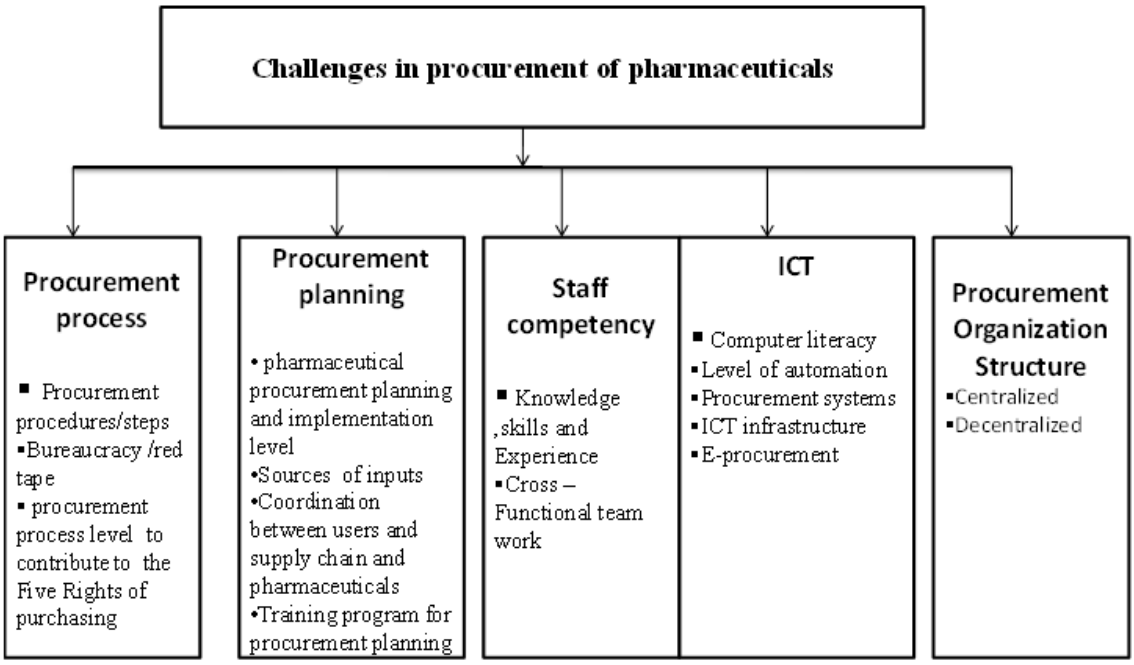

Figure 1: Conceptual framework developed by the researcher

RESEARCH METHODS

Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2004). The study used a cross-sectional survey to collect the relevant data at a given point in time on the subject matter. Descriptive research design was employed. The reason behind using descriptive research design is because the study is intended in describing the existing situation regarding challenges in procurement of pharmacuiticals in Jimma university specialised hospital. According to Singh (2006) descriptive research design is used to meet objectives such as identify present conditions, point out present needs, to study immediate status of a phenomenon, fact findings and to examine the relationship of traits and characteristics.

Research Approach

There are three types of research approaches. These are quantitative, qualitative and mixed. Qualitative research mainly used to assess respondents attitudes, feelings and motivations whose findings are not obtained from quantifiable analysis while quantitative research involves mathematical analysis (Kothari, 2004). Each method has its own strengths and weaknesses. Qualitative research may offers in-depth information regarding the respondents feeling, emotions, motives and the like, which are difficult to obtain through quantitative methods and it is also relatively cheap (McDaniel & Rogers, 2000). However, it is highly dependent on the researcher's personal knowledge of the social context of where the data could be collected and his/her creative and investigative mindset. There is also high tendency for subjectivity as it typical use small sample size and doesn't provide clear cut answer (Bhattacherjee, 2012). Therefore, the study was used mixed approach to investigate challeges in procurement of pharmacuiticals in Jimma university specialised hospital.

Data Type and Source

Both secondary and primary data sources were used for this study. The primary data was considered as a new because collection is made for the first time hence, original in character (Kothari, 2004). Primary data was collected through survey questions and interview. Secondary data was extracted from documents such as public procurement manuals, purchase order, internal purchase regulation, the comparative analysis documents and reports of pervious researches.

Target Population

Population is the entire set of units for which the study data are to be used to make inferences (Kothari, 2003). Target population defines those units for which the findings of the study are meant to be generalized from (Dempsey 2003). The targeted respondents comprise of administration officers and functional staffs that are members of tender committee and/or directly/indirectly involved in pharmaceutical procurements, supply chain

and pharmaceuticals professionals, and pharmacy service professions, department heads of service delivery units and nurse heads of service delivery units in Jimma university specialized hospital. These were targeted since they are involved in the execution of key pharmaceutical procurement management decisions, directly or indirectly involved in the pharmaceuticals procurement; and hence, have technical knowledge and skills, give accurate and relevant information than any other staff of the hospital on challenges in pharmaceutical procurements. The study population thus comprised 146 employees and they categorized with respective number as shown below.

Table 1: Tabulation of Study Group and Sample

Category	Study population	Sample size	Sample
Hospital Administration officers and functional staffs	33	100%	33
Pharmacy service professionals	56	100%	56
Supply chain and pharmaceuticals professionals	12	100%	12
Service delivery unit Department Head	18	100%	18
Service delivery units Nurse Head	27	100%	27
Total population	146	100%	146

Source: Jimma Univrsity Specialed Hospital (2017)

Sampling Technique

The study was used a census technique with respect to the unit of analysis which is Jimma University specialized Hospital. This therefore ruled out application of specific sampling design and sampling technique. The researcher decided to use a census since the population of 146 is small and the study aimed to reach all the targeted respondents . The census approach is justified since according to Orodho (2009), data gathered using census contributes towards gathering of unbiased data representing all individuals' opinions in the study population on a study problem. The census approach is also justified since according to Field (2006), results obtained from a census are likely to be more representative, accurate and reliable than results obtained from a population sample; and thus, census assists in generalization of research findings. Census provides a true measure of the population since there is no sampling error and more detailed information about the study problem within the population is likely to be gathered (Sekaran & Bougie, 2010).

Data Collection Techniques and Instrument

The primary data was collected using self-administered questionnaire and also through interview conducted with director, supply chain and pharmaceuticals unit. The researcher personally went to the target offices for distribution and collection of the questionnaire from the respondents. Data collection covered supply chain and pharmaceuticals unit, pharmacy service sections, administration and functional offices. The researcher also hired three data enumerators for assistance in distributing and collecting the questionnaire. They were given detail training regarding the purpose of the study and data needed. The questionnaire constituted two parts; the first part aimed 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 challenges in procurement of pharmaceuticals of the organization and other supporting questions.

Pilot Study

A pilot study was done to assess the capability of the research instruments to collect required data for the research. To represent all the five categories in the sampling frame two respondents were selected from each category making a total of ten pre-test samples which represent 7% of the total respondents. Reliability of the questionnaire was measured using the internal consistency technique. This was done by the researcher administering a single test to the sample of subjects. The score obtained in one item was correlated with scores obtained from other items in the instrument. Cronbach's Coefficient Alpha was computed to determine how items correlate among themselves (Mugenda & Mugenda, 1999). This method was used to save on time. The results of this reliability test was analyzed and used to improve the questionnaire. As a result of the pilot test, changes in words selection and instructions made to the questionnaire. Regular cross checking and follow ups were done to ensure accuracy, relevance, completeness, consistency and uniformity of the data collected.

The reliability is expressed as a coefficient between 0 and 1. The higher the coefficient, the more reliable is the test. All the 5 constructs representing the variables attracted a Cronbach's alpha statistics of more than 0.8 individual item loadings which represent squared multiple correlations of 0.80 or greater imply that the indicator shares more variance that the data collection is reliable (Sekaran, 2003). The reliability statistics are presented in table 2.

Table 1: Reliability Test

		Cronbach's Alpha	No of Items	Comments
1	Procurement process	0.844	5	Accepted
2	Procurement planning	0.886	4	Accepted
3	Staffs competency	0.864	6	Accepted
4	ICT	0.874	4	Accepted
5	procurement organizational structure	0.957	4	Accepted

Source: Survey Result (2017)

Methods of Data Processing and Analysis

Sekaram (2003) asserts that there are three objectives in data analysis; getting a feel for the data, testing the goodness of the data, and answering the research question. He notes that establishing the goodness of data lends credibility to all subsequent analysis and findings because it measures the reliability and the validity of the measures used in the study. After gathering data from questionnaire, it was checked adequately for reliability and clarification. The data was analyzed using quantitative techniques, whereby the findings was presented in the form of frequency distribution tables and pie charts while qualitative techniques was incorporated in the study to facilitate description and explanation of the data collected through interview. By so doing this, created good understanding of the study findings. The data collated was entered into a computer and analyzed using Statistical Package for Social Sciences (SPSS Version 16). The software packages enabled the researcher to analyze the data into percentages, means and standard deviations. The results were presented in form of frequency tables, pie charts and bar graphs.

Ethical Considerations

Before collecting the data the researcher contacted the CEO (Chief Executive Officer) of the Hospital and heads of each section and explain the purpose of the research. At the beginning the researcher informed oral consent and orientation on how to fill the questionnaire. The questionnaires were distributed to the respondents to express their opinion. The question was clearly simplified and structure in a manner without any ambiguity and technical details. To facilitate the data collection process questionnaires were prepared in English language. Some of the ethical considerations in the study include: The results of the questionnaire are strictly confidential though the results are published in the course of the study. Thus, there was no reference given about the respective names of the respondents in the study report. The interview was not be recorded by audiotape. Finally, the participants in the study were voluntary and no one prejudiced for failing to participate.

RESULTS AND DISCUSSION

The study population consisted of 146 respondents. Questionnaires were self-administered to 146 respondents; the questionnaires were filled and returned by 137 respondents translating to a response rate of 93.8%. 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. This was in line with Orodho (2009) that a response rate above 50% contributes towards gathering of sufficient data that could be generalized to represent the opinions of respondents about the study problem in the target population.

Demographic Characteristics Related Descripitive Statistical Analysis

Table 2: Demographic Information of Respondents

Attributes	Frequency	Valid Percent
Gender of Respondents		
Male	102	74.4
Female	35	25.6
Total	137	100.0
Age of Respondents		
20-30 years	14	10.2
31-40 years	110	80.3
41-60 years	13	9.5
Total	137	100.0
Level of Education		
Diploma	1	0.73
1st Degree	97	70.81
2nd Degree	37	27.00
PhD and above	2	1.46
Total	137	100.0
Number of years worked with in the institution		
<5	38	27.74
6-10	51	37.22
11-15	35	25.55
16 and above	13	9.49
Total	137	100.0

Source: Survey Result (2017)

The results obtained from the above table indicate that 102 respondents representing 74.4% of respondents are males while 35 respondents representing 25.6% were females. This clearly shows that there were more male participants than females in this study and it may be as a result of the institutions selection having more male employees than females. As shown in table 3, 80.3 % of the respondents were aged between 31 and 40 years, 10.2% of the respondents indicated that they were aged between 20 and 30 years, while 15.9 % of them are between 41 and 60 years. Therefore, the finding indicates majority of the respondents are middle aged and elderly. This implies that these are experienced employees who could have given the relevant information to the study area. Also the table presented that majority 97 (70.81%) of the respondents have first degree education level, 37(27%) secondary education level, 2(1.46%) of them are at PhD level, and only 1(0.73%) respondent is diploma holders. Therefore, this finding implied that most of the respondents were qualified to understand the nature of the study problem. Furthermore, table 3 indicates 51(37.22%), 38 (20.74%), 35 (25.55 %), 13(7%) of the respondents have working experience of 6-10 years, 5 years, 11-15 years, 16 years and above repectively in the hospital. This indicates that around 80% of the respondents have worked in the hospital which is very long time and thus understood technical issues on challenges in procurement of Pharmaceuticals in Jimma University Specialized Hospital.

Procurement Related Descriptive Statistical Analysis

Table 3: Duration of pharmaceuticals procurement process

	Frequency	Valid Percent
How do you agree with the statement that Pharmaceuticals Procurement process in JUSH is too lengthy?		
Neutral	2	1.5
Agree	35	25.5
Strongly Agree	100	73.0
Total	137	100.0

Source: Survey Result (2017)

From the table 4 above, majority of the respondents (100(73%) are strongly agree with the statement that Pharmaceutical procurement process in Jimma University Specialized Hospital is too lengthy, 2(1.5%) are neutral, 35(25.5%) are agree with statement that pharmaceuticals procurement process is too lengthy. So, from the result one can conclude that pharmaceutical procurement process in Jimma University Specialized is too lengthy. This

will be a challenge and have a negative effect on Health delivery process and the long term performance of the Hospital as well.

Table 4: Average time it takes to procure pharmaceuticals in JUSH

	Frequency	Valid Percent
What is the average time does it take to procure pharmaceutical in JUSH?		
1-4weeks	4	2.9
5-8 weeks	7	5.1
9-12 weeks	10	7.3
13-20weeks	12	8.8
21-24 weeks	31	22.6
> 6 months	73	53.3
Total	137	100.0

Source: Survey Result (2017)

Table 5 indicates 4(2.9%) of respondents replied that the average time it takes on average to procure pharmaceuticals is 1-4 weeks, 7(5.1%) of them replied that it takes 5-8 weeks on average, 10(7.3%) of the respondents answered it takes 9-12 weeks on average, 12(8.8%) of the respondents replied it takes 13-20 weeks, 31(22.6%) of them replied it takes 21-24 weeks of time on average, and the remaining 73 respondents representing 53.33% replied that the average time it takes to procure pharmaceuticals is more than 6 months. This result showed that how the procurement process of pharmaceuticals in Jimma University specialized hospital takes a long time. And hence, time is one of the performance indicator of procurement performance one can easily conclude that the performance of procurement process is to lengthy and it is a challenge in this regard.

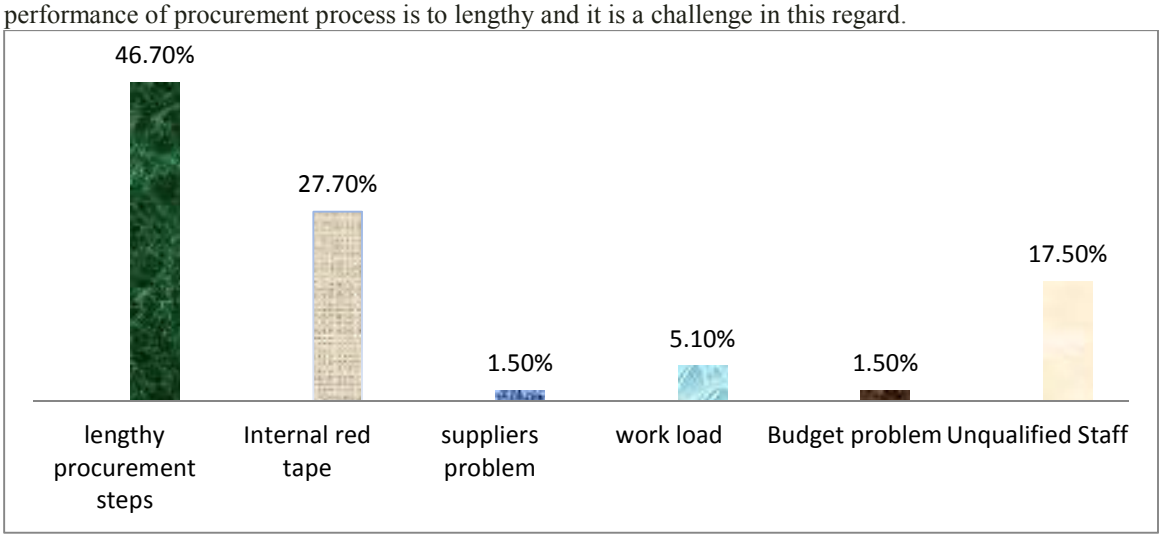

Figure 2: Reasons for long pharmaceuticals procurement process
Source: Survey Result (2017)

From the figure 2 above, 64(46.7%) of the respondents blame lengthy procurement steps as a reason for lengthy pharmaceutical procurement process, 38(27.7%) of respondents replied internal red tape or internal bureaucracy as a reasons for long process, next unqualified pharmaceutical procurement team is considered as a reason for long process marked by 24(17.5%), and 7(5.1%) of respondents replied work load on pharmaceuticals procurement team as a reasons for long process, according to respondents suppliers problem and budget problem are least likely reasons for lengthy pharmaceutical procurement process each marked by 2(1.5%). Further analysis of this issue disclosed that respondents don't assume budget as a problem since every year there is large amount of budge is allocated for pharmaceuticals procurement.

Moreover, as data obtained through interview made with the director of Supply chain and pharmaceuticals sections of the Hospital, there are five different types of pharmaceuticals procurements each having particular situations to be applied and list of requirements to be met while being applied. These types of procurement are guided by according to Federal Government of Ethiopia Procurement and Property Administration Proclamation No *649/2009* manual. These types oare: open bid, restricted bid, closed bid, purchase made by invitation for quotation *(Performa* invoice), and purchase from a single supplier.

The major supplier of Medicines for Jimma University Specialized Hospital is Pharmaceuticals fund and supply Agency (PFSA). However, there are times where by the required medical supplies are out of stock at PFSA, and in such cases once medical supplies are out of stock at PFSA and evidence of this is available, the Hospital procures the medicines from private suppliers and all level follows what is stated in the PPA, Federal Government

of Ethiopia Procurement and Property Administration Proclamation No *649/2009* manual. For different types of procurement there are different steps in the procurement process. Open purchase is the one that involves the longest of steps in the process.

1. Need recognition**:** the pharmaceuticals procurement team recognizesneed for procurement in three ways:
   i. When users service delivery units present purchase requisition
   ii. When store demands for replenishment of pharmaceuticals in the store or purchase ofimmediately requested pharmaceuticals
   iii. Summarizing annual pharmaceuticals procurement plan of the Hospital
2. Availability of budget will be checked
3. Identification of detailed requirements
4. Development of specifications
5. Preparation of purchase requisitions
6. Approval of requisitions
7. Preparation of bidding documents
8. Pre-qualification of bidders
9. Preparation of Invitation of bids
10. Receipt and opening of bids
11. Technical Evaluation by different professionals
12. Evaluation of technical and Financial
13. Approval by endorsing committee
14. Approval of bids by CEO of the Hospital
15. Award of Tender
16. Negotiation of Tender by the supplier
17. Signing of Contract with supplier
18. Receiving and inspection of pharmaceuticals delivered by the supplier
19. Certification of supplier invoices
20. Payment for suppliers
21. Pharmaceuticals dispatched to service delivery units
22. Closing of procurement file is the final step

As answered above the procurement process reveals a number of problems. The major problems are**:** the procurement process in Jimma University Specialized involves 22 steps, which are very lengthy some of the steps are redundant and because of this procurement are often delayed. Besides the lengthy procurement process, involvement of large number of decision makers delays the process. The members are holding the responsibility in the committee as part time duty without any additional benefit or compensation and minimal direct supervision. According to Supply chain and pharmaceuticals services director there are often late purchases due to a number of reasons. The reasons for delay in purchase include: the pharmaceuticals unit has to strictly follow the procurement process whichinvolves verification and approval at different levels and this will take some time.There is cash shortage for purchases to be made from petty cash since the amount of petty cash is very small. Sometimes the requested items might not be available in the market so the requisition shall be reprocessed.

Table 6: Instances where procured pharmaceuticals different from users' need

	Frequency	Valid Percent
Do you think procured pharmaceuticals different from users' need?		
Yes	116	85
No	21	15
Total	137	100.0
Reasons for procured pharmaceuticals different from users need;		
Unclear specification of pharmaceuticals on the purchase request	91	78.5
Pharmaceuticals Procurement team lack of knowledge, skills and experience	21	18.1
Suppliers don't have	2	1.7
Other reasons	2	1.7
Total	116	100.0

Source: Survey Result (2017)

From table 6 above the majority (116(85%) of the respondents answered that pharmaceuticals procured are different from users need. This indicated that users are not satisfied unless they are provided with pharmaceuticals that match with their need and the quality of pharmaceuticals purchased is not appropriate. Out of respondents who said yes for the mismatch, more than 78% of the respondents stated that specification problems are causing mismatches between purchasing and the need. Next to that the lack of knowledge by the procurement team is stated as a reason for wrong purchases; 18.1% of respondents who said yes. According to respondents suppliers don't have the pharmaceuticals and other reasons are least likely reasons for mismatch between actual and requested pharmaceuticals each marked by 1.7%. Further analysis of this issue disclosed that service delivery units in Jimma University are simply asked to submit request to supply chain and pharmaceutical service unit for pharmaceuticals only by mentioning the name of pharmaceuticals without detailed specifications for pharmaceuticals. As Otter (2010) stated specifications are one of the most important elements of the procurement process. The preparation of good specifications is probably the most difficult function in the process. Inadequate or poorly written specifications are the cause of many bidder challenges and can considerably delay the purchasing process. The procurement unit has final responsibility for specifications issued as part of formal invitation to bids or request for Proposals.

According to Supply chain and pharmaceuticals services director, there are also instances users complaining about quality claiming the pharmaceuticals are either wrong quality or poor quality. Wrong quality means some different type of the same pharmaceuticals is purchased which might not met users requirement. On the other hand, poor quality implies the item might be the same, but it's below standard and it doesn't effectively serve the intended purpose. According to the director problems happen because users don't clearly state their request.

Table 5: Degree to which pharmaceuticals procurement process in JUSH support the 5 R's

	N	Minimum	Maximum	Mean	Std. Deviation
There is effective procurement process to support timely procurement of pharmaceuticals in JUSH	137	1.00	4.00	1.9781	.82664
There effective procurement process to support to identify right source for pharmaceuticals in JUSH	137	1.00	4.00	2.4891	.90030
There is effective procurement process to support procurement of pharmaceuticals with the right quantity in JUSH	137	1.00	4.00	2.5255	.90814
There is effective procurement process to support procurement of pharmaceuticals with the right price in JUSH	137	1.00	4.00	2.5109	.90030
There is effective procurement process to support procurement of pharmaceuticals with right quality in JUSH	137	1.00	4.00	2.0292	.83085
Valid N (listwise)	137				

Source: Survey Result (2017)

From the descriptive statistics table 7 above respondents answered that for the questions asked whether there is effective procurement process to support timely procurement of pharmaceuticals, effective procurement process to support to identify the right source for pharmaceuticals, effective procurement process to support procurement of pharmaceuticals with right quantity, with right price, and with the right quality - the average mean score is 1.97812.4891, 2.5255, 2.5109, and 2.02292 respectively. So, from the result above from the five basic questions only two of them score average mark this is above 2.5 out of 5. So, one can easily conclude that Pharmaceutical procurement process is not in position to support the 5 R's.

Table 8: Procurement plan for pharmaceuticals procurement activity

	Frequency	Valid Percent
Do you think procurement plan facilitates procurement activity of pharmaceuticals according to users need?		
Yes	126	92
No	11	8
Total	137	100.0
Does Jimma University Specialized Hospital plan for pharmaceuticals Procurement adequately?		
Yes	32	25.5
No	102	74.5
Total	116	100.0
What is the main source of inputs for pharmaceuticals procurement plan in JUSH?		
User departments and units	7	5.1
Annual estimated budget	65	47.4
Previous procurement plan (Historical records)	65	47.4
Total	137	100.0
Factors affecting pharmaceuticals procurement plan preparation and implementation in JUSH		
Lack of proper knowledge, skills & capacity	39	28.5
Weak coordination	56	40.9
Insufficient manpower	4	2.9
Procurable pharmaceuticals	38	27.7
Total	137	100.0

Source: Survey Result (2017)

Table 8 indicates the majority of the respondents (126 (92%) of them agreed that procurement plan facilitates procurement activity of pharmaceuticals according to users need but only 11(8%) of them disagree that procurement plan facilitates the procurement functions. From this result, one can conclude that procurement plan facilitate pharmaceuticals procurement activity according to users need. The table also shows that 102(74.5%) of

the respondents replied that JUSH pharmaceuticals procurement plan is not prepared adequately; and only 35(25.5%) replied it is prepared adequately. Thus, the procurement plan preparation for pharmaceuticals is poor. As shown 65(47.4%) of the same number of respondents indicated that the main sources of inputs for pharmaceuticals procurement plan is from previous procurement plan (Historical records) and from annual estimated budget each marked by 65(47.4%), only 7(5.1%) of them replied the main source of input for pharmaceuticals procurement plan is from user departments and units. The implication is that minimum consideration is given to units/departments and other stakeholders within the hospital for sources/inputs during pharmaceuticals procurement planning.

From the above table, 39(28.5%) of respondents indicated lack of proper knowledge, skills and capacity for factors affecting pharmaceuticals procurement preparation and implementation, 56(40.9%) of respondents indicated weak coordination between pharmaceuticals procurement team and users service delivery units as factors, 38(27.7%) of respondents indicated procurable pharmaceuticals are not indicated in the budget for factors and only 4(2.9%) of respondents in sufficient man power indicated for the factors. Thus, weak coordination between users' service delivery and pharmaceuticals procurement team is the most factors affecting pharmaceuticals procurement plan preparation and implementation at Jimma University Specialized Hospital.

Table 9: Pharmaceuticals procurement planning

	N	Minimum	Maximum	Mean	Std. Deviation
There is training program for pharmaceuticals procurement planning	137	1.00	4.00	2.2117	.70116
Need assessment is done properly prior to procurement process	137	1.00	4.00	2.3504	.76304
There is monitoring and updating of procurement plan for pharmaceuticals	137	1.00	4.00	2.4891	.85849
Stake holders like service delivery units in JUSH involved in procurement planning	137	1.00	4.00	2.3942	.81672
Valid N (listwise)	137				

Source: Survey Result (2017)

From the descriptive statistics table 9 above, respondents answered that for the questions asked whether there is training program for pharmaceuticals procurement planning, need assessment is done prior to procurement process, there exist monitoring and updating of procurement plan for pharmaceuticals and whether Stakeholders like service delivery units get involved in procurement planning; the average mean score is 2.2117, 2.3504, 2.4891, and 2.3942 respectively. So, from the result above, from the 4 basic questions all scoreis below average mark which is above 2.5 out of 5. So, one can easily conclude that pharmaceuticals procurement planning trends at Jimma University Specialized Hospital is poor.

Table 10: pharmaceuticals procurement team competency

	N	Minimum	Maximum	Mean	Std. Deviation
They have recognized professionals qualification competency for pharmaceutical procurements	137	1.00	4.00	2.1825	.86788
They have skills to procure pharmaceuticals pharmaceutical	137	1.00	4.00	2.5182	.88369
They have the ability to understand users need,supply market and supplies	137	1.00	4.00	2.5401	.92366
They have the ability to negotiate with users and suppliers	137	1.00	4.00	2.4234	.88053
They have the ability to apply public procurement principles,and prepare tender and contract document on time	137	1.00	4.00	2.3869	.82469
They have skills and ability to work with others working units concerning pharmaceuticals procurement as team	137	1.00	4.00	2.2263	.68592
Valid N (listwise)	137				

Source: Survey Result (2017)

The respondents answered for the questions asked whether Pharmaceuticals Procurement team have recognized professional procurement qualifications or competency, skills to procure pharmaceuticals, the ability to understand users need, supply markets and suppliers, the ability to apply public procurement principles, and prepare tender and contract document on time and skills and ability to work with others working units concerning pharmaceuticals procurement as team, according to the descriptive statistics table 10; the average mean score is 2.1825, 2.5182, 2.5401, 2.4232, 2.3869 and 2.2263 respectively. So, from the result above from the 5 basic questions only one of them score above average mark which is above 2.5 out of 5. So, one can easily conclude that pharmaceuticals procurement team competency at Jimma University procurement is poor.

Table 11: Level of ICT to support pharmaceuticals procurement

	N	Minimum	Maximum	Mean	Std. Deviation
There are adequate ICT facilities such as pc, internet connection ,photocopy, printer to support pharmaceuticals procurement	137	1.00	4.00	2.6423	.96052
staff in charge of pharmaceuticals procurement have enough computer literate to support pharmaceuticals procurement	137	1.00	4.00	2.6131	.95677
There is good level of automation to support pharmaceuticals procurement	137	1.00	4.00	2.2920	.75887
There is good level of systems usage to support pharmaceuticals procurement	137	1.00	4.00	2.2628	.92570
There is good level of embracement of E-procurement to support pharmaceuticals procurement	137	1.00	4.00	2.1971	.87312
Valid N (listwise)	137				

Source: Survey Result (2017)

From the table above, respondents answered that for the questions asked whether there are adequate such as PCs, internet connections, photocopy facilities, printers, etc to support pharmaceuticals procurement ,pharmaceuticals procurement team have enough computer literate to support pharmaceuticals procurement, there is good automations to support pharmaceuticals procurement, there is good level of procurement systems package support pharmaceuticals procurement and good level of embracement to E-procurement support pharmaceuticals procurement. The average mean score is 2.6423, 2.6131, 2.2920, 2.2628 and 2.1971 respectively. Therefore, from the result above, from the 5 basic questions only two of them score above average mark which is above 2.5 out of 5. So, one can easily conclude that ICT level to support Pharmaceuticals Jimma University Specialized Hospital is weak.

Table 12: Pharmaceuticals procurement challenges based on their degree of seriousness

	N	Minimum	Maximum	Mean	Std. Deviation
Lengthy procurement process	137	1.00	5.00	4.5328	.83182
Lack of employee competency	137	1.00	5.00	4.0803	.82300
Poor planning culture	137	1.00	5.00	3.4745	.78666
Inefficient use of information system	137	1.00	5.00	3.3869	.68865
Full centralization of procurement activities	137	1.00	5.00	3.4161	.68215
Valid N (list wise)	137				

Source: Survey Result (2017)

As indicated in table 12 above, respondents rank lengthy procurement process 1st, with a mean value of 4.5328, lack of employee competency (skill and experience,) users ranked 2nd, with mean value of 4.0803, poor procurement planning culture 3rd with mean value of 3.4745, full centralization of pharmaceuticals procurement activities 4th with mean value of 3.4161, inefficient use of information system 5 th with mean value of 3.3869So, from the result above, one can conclude that variable all do perfectly have impact on the performance of procurement and are consistent with the empirical literature review.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The analysis of both primary and secondary sources revealed that there are challenges in pharmaceuticals procurement in Jimma University Specialized Hospital. The major challenges are summarized as follows: The pharmaceuticals procurement process involves several steps which are very lengthy and a sequence of non-value adding cyclical activities. Some of the steps are redundant and because of this procurement are often time consuming. The process involves verification and approval at different levels and this will take time. Internal red tape and unqualified pharmaceutical procurement team are some other factors contributing to long procurement process next to the several procurement process steps.

Culture of preparing plan for pharmaceuticals and implementation of the plan in Jimma University Specialized Hospital was found very poor. Minimum consideration is given to units/departments and other stake holders for their inputs for pharmaceuticals procurement planning. Lack of proper knowledge, skills and capacity for pharmaceuticals procurement preparation and implementation, inadequate cooperation between weak coordination between pharmaceuticals procurement team and users' service delivery units are major factors affecting procurement planning .Majority of the respondents strongly disagree with that statement; there is training program for pharmaceuticals procurement planning, need assessment is done prior to procurement process, there exist monitoring and un updating of procurement plan for pharmaceuticals and Stake holders like service delivery units get involved in procurement and this is evident that procurement planning practices in Jimma University

Specialized Hospital is poor and has great impact on pharmaceuticals procurement.

The study identified that majority of the respondents disagreed with the statements : procurement team have recognized professional procurement qualifications or competency, skills to procure pharmaceuticals, the ability to understand users need, supply markets and suppliers, the ability to apply public procurement principles, and prepare tender and Contract document on time and skills and ability to work with others working units concerning pharmaceuticals procurement as team and hence,pharmaceuticals procurement team competency at Jimma University procurement is poor and this is a challenge for pharmaceuticals procurement activities. The study also sought to evaluate the level of ICT to support pharmaceuticals procurement activities. The study identified that most of the respondents disagreed with the statements : there are adequate such as PCs, internet connections, photocopy facilities, printers, etc to support pharmaceuticals procurement ,pharmaceuticals procurement team have enough computer literate to support pharmaceuticals procurement, there is good automations to support pharmaceuticals procurement, there is good level of procurement systems package support pharmaceuticals procurement and good level of embracement to E-procurement support pharmaceuticals procurement. And hence, ICT level to support Pharmaceuticals Jimma University Specialized Hospital is weak and it is challenge in pharmaceuticals in procurement.

Moreover, according to the five R's of purchasing (at the right time, from the right source, at the right price, at the right quality, right quantity) Jimma University Specialized Hospital Pharmaceuticalsprocurement unit is working well in terms of purchasing right quantity. Everyone is giving high emphasis only for least price, other principles of procuring to secure right quality, quantity; sourcing and timing of purchases are not given any attention

Recommendations

Based on the findings, the following recommendations are forwarded by the researcher: The procurement procedure is too long and has about 22 steps in it. Therefore, the Hospital should evaluate the existing procurement process to reduce the number of steps in order to avoid steps which are redundant, reduce internal red tapes and make sure the parties involved are mandatory in the process and have the ability and willingness to contribute for efficient procurement practice, the review is done so that the hospital will have some policies to streamline their operations. Jimma University Specialized Hospital should strive to strengthen their procurement plan and make a good culture so as to ensure successful implementation of their organizational plan and to achieve their organizational goals and objectives. And procurement plan must be fully integrated with the strategic plan and budget. 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 pharmaceuticals. Since the results of the data processed disclosed 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 and implement should be organized. In addition, Integration among supply chain and pharmaceuticals services and service delivery units should be strengthened.

Regarding employee competency, the result of the study showed that there is a shortage of qualified and experienced employee. The top management should develop retention mechanism of existing qualified and to attract qualified employees. The Hospital top management should also device mechanism to motivate qualified staffs by adopting different motivating factors such as through recognizing and rewarding efficient employees while making sure intentional inefficiencies would result in substantial accountability. The management should give proper emphasis for pharmaceuticals procurement function by giving consideration for the following: assigning qualified staff for pharmaceuticals procurement, effectively communicating the importance of having efficient procurement management which can be met by securing the purchase of right quality item, in the right quantity, from the right source, purchased for the right price and delivered at the right time.

The study identified that the usage level information communication technology for pharmaceuticals procurement activities in Jimma University Specialized Hospital is weak. Therefore, the study recommends that Jimma University Specialized Hospital should automate their systems. Embrace Information Communication Technology for the purpose of enhancing efficiency, effectiveness and transparency. The Hospital should also adopt using electronic systems to manage internal operations such as inventory management and control. The study also sought to evaluate the organizational structure of procurement activity. The findings show that it is highly centralized. Therefore, Hospital should both centralized and decentralized structure by giving chance to relevant service delivery units on relevant decisions like what, how and when to procure pharmaceuticals to service delivery units when required; to the extent of decentralizing routine and repetitive procurement activities to differentfunctions and to strengthen their human power, so that they can easily procure items which are of low cost items but very crucial to the device delivery purpose.

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