

**E-PROCUREMENT AND ORGANIZATIONAL PERFORMANCE  
A CASE OF MAKERERE UNIVERSITY**

**BY  
AJUNA DAPHINE  
1153-05084-03069**

**A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT  
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## DECLARATION

I **AJUNA DAPHINE** declare that this is my original work and to the best of my knowledge, it has never been submitted to any University or institution for a degree award.

Signed ..... Date .....

**AJUNA DAPHINE**

**1153-05084-03069**

## APPROVAL

This research report has been submitted for examination with my approval as a university examination supervisor.

Signed ..... Date .....

**MR. MASABA RICHARD**

**(Supervisor)**

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## LIST OF ABBREVIATIONS

B 2 B	-	Business to Business
E-BUSINESS	-	Electronic Business
E-COMMERCE	-	Electronic Commerce
EPS	-	Electronic Procurement System
E-PROCUREMENT	-	Electronic Procurement
ICT	-	Information and Communication Technology
IBM	-	International business machine
I T	-	Information Technology
PSPTB	-	Procurement and Supplies Professional and Technician Board
SPS	-	Standard Procurement System

## **ABSTRACT**

This study aimed at examining E-procurement and organizational performance of Makerere University. Total sample of 30 which is 42% of the population was picked from Makerere University by simple random and purposive sampling methods. Data was collected by questionnaires, interviews and review of documents with a response of 30 staffs which is 99.9% of the sample and qualitative analysis method was used to process the data. The study revealed a number of factors that may lead to effective adaptation of E-procurement in public organization but can mainly be grouped into two, Organization factors such as, sufficient training to employees, high sensitization of employees on existing training program, adequate training budget, and high training programs evaluation; Sociological interaction, such as; age characteristics, marital status, team building programs and high level of education. To enhance further effective improvement of training programs it is recommended to develop a uniform TNA exercise improve the level of efficiency of training function and eventually have clarity in scope and objectives; Conduct evaluation after every training session and give feedback to trainees; increasing employee capacity by allocating sufficient budget; Implement training function openly and involve every individual in determining the kind of training they need.

## **CHAPTER ONE**

### **1.1 Introduction**

This chapter involved overview of the research problem such as background of the study, historical background of the organization, statement of the problem and objectives of the study conceptual framework, Scope. The researcher further clarified the significance of the study together with its limitation.

### **1.2 Background of the Study**

Project and Businesses face many challenges in today's fast uncertain global climate according to the research that was conducted by (Lee and Gebauer, 2015). Many organizations have turned their attention to Electronic Commerce (EC) technologies in order to ensure that they improve on the efficiency of their business processes. The most prominent form of EC system concerning interactions between businesses (business to business) that have recently received attention in the literature is called Electronic Procurement System (EPS) according to (Hawking and Stein, 2014). EPS automates an organization's purchasing process, reduces transaction costs, improves inter-organizational coordination within the supply chain, improves relationship with business partners and offers competitive sourcing opportunities for the buyer organizations (Subramaniam and Shaw, 2012). The above are some of the advantages that are associated with the use and application of E-procurement in any form of business operations.

The wide spread adoption of EPS by organizations in both Public and private sectors will lead to national performance improvement and productivity growth and it has the potential to increase the gross domestic products (GDP) significantly (Hawking and Stein, 2004). (Amitt & Zott, 2011) realized that in recent years internet had revolutionary effect on corporate purchasing practices, in both direct and indirect purchases. The diffusion of new e-business technologies in the late 1990's has created new working practices and new business models for corporate business function. E-procurement system have been used by several organizations to purchase both direct and indirect materials for processes such as operations, sales, administration and maintenance, travel related items, cleaning, solvents and transportation services, among others this procedure allows the organizations to have a decentralized purchasing decision, in which only the accredited suppliers can be seen in their purchasing systems, through for example e-catalogues.

Countries like Britain, USA, Germany and France who have employed e- procurement Mechanism are at liberty operation and have been pivotal in the management of their organizations and these has enhanced performance of the organizations. The countries in globe in the globe and the Asian continent like China that are progressively using e-procurement fiber are registering improvements in performance traits necessary for enhancing business generation for performance.

In Africa, organizations have focused on efficiency and tend to make decisions based on cost and investment payback likely hood, while effectiveness focused organizations make decisions based on quality and value rather than cost and productivity.

Panetto & Boudjilida (2013) assert that, enforcement of public procurement legislation is in countries like Ghana, South Africa that have employed asystem of E-purchasing has transformed the business operation for the development in organizations .it is apparent that many countries have simply copied down directives and there by formally fulfilled requirements while not possessing the needed capacity to implement them effectively, which has become Evident problem in the recent past.

In East Africa, procurement undertakings in the organizations are conducted in the different countries which include:- Kenya, Tanzania, Burundi,Rwanda and Uganda have also a low e procurement system (EPS) functioning that has left most of organizations under performing in their operations and the environment of e procurement system inefficiency can affect the performance for the organizations (Orori,2011).

The state of the organizations in East Africa has not embraced well the e- procurement in the pursuit of the organizations that has been undertaken in the management of organization. The status of the organizations in East African community represents a low concentration on procurement undertakings that explain delays to customer's needs in the organization. E-procurement in East Africa has harmful effect on organization performance.

In Uganda e- procurement despite being at lower prevalence, the country register a lot of complains regarding the e- procurement as many organizations have not been oriented to it and the infrastructure supporting the e- procurement is inadequate.

Therefore, adaptation of EPS by organizations will lead to national performance improvement and productivity growth and it has the potential to increase the gross domestic products (GDP) significantly (Hawking and Stein, 2004). (Amitt & Zott, 2011) realized that, in recent years Internet had revolutionary effect on corporate purchasing practices, in direct and indirect Purchases and has created new working practices and new business models for corporate business function.

E-procurement system have been used by several organization to purchase both direct and indirect materials for processes such as operation, sales, administration and maintenance among others this procedure allows the organizations to have a decentralized purchasing decision, through e-catalogues.

### **1.3 Historical Background of the Organization**

Established in 1922 as a humble technical school, Makerere University is one of the oldest and most prestigious Universities in Africa. In January of that year, the school, which was later renamed Uganda Technical College, opened its doors to 14 day students who began studying Carpentry, Building and Mechanics. The College soon began offering various other courses in Medical Care, Agriculture, Veterinary Sciences and Teacher Training. It expanded over the years to become a Center for Higher Education in East Africa in 1935. In 1937, the College started developing into an institution of higher education, offering post-school certificate courses.

### **1.4 Statement of the Problem**

Electronic Procurement is today viewed as a major means of cost saving, a tool to competitive advantage, risk management medium, a strategic competitive tool among suppliers as well as means to creation of synergistic partnership and strategic alliance among firms (Stock & Lambert, 2009).

However, organizations that engage in E-procurement are faced with challenges ranging from cyber crime, lack of internal and external support, high cost of operation information leakages, loss employee loyalty, over reliance on service providers, low quality that has resulted to poor organizational performance.

(Edie at 2007), Organization in Uganda face challenges to import and export raw materials or products to run their business. Although several factors could be responsible to organization



as (regardless cost, time, flexibility , and quality ) in Uganda organizations including Makerere university therefore adopt the use of EPS to improve the procurement function through utilization of the internet.

To combat this state, government advices the councils to enhance procurement efficiency using innovative internet- based information technology (IT) solution, (Batenburg,2007). Therefore the core question is how electronic procurement system will be equipped to foster efficiency and effectiveness of procurement system. The researcher aimed to assess the barriers for using Electronic Procurement System (EPS) at Makerere University so as to search data which will help to bring the ideas for improvement of EPS adoption.

## **1.5 Objectives of the study**

### **1.5.1 General objective**

The general objective of this study was to identify the relationship between e-procurement and organizational performance.

### **1.5.2 Specific Objectives**

- i) To evaluate the extent to which management supports E-Procurement System (EPS) at Makerere University.
- ii) To identify problems facing e- procurement system at Makerere University
- iii) To examine whether public institutions can access E- procurement System in reaching organizational goals

## **1.6 Research Questions**

In this study the specific research questions are as follows;

- i) To what extent does the management support the EPS at Makerere University?
- ii) What are the problems facing e- procurement system at Makerere University.
- iii) Can public institutions access E-procurement system in reaching organization goals?

## **1.7 Scope of the Study**

### **1.7.1 Content Scope**

The study concentrated on e-procurement system and organization performance. E-procurement was investigated in terms of technological competence and management support process and organizations performance was determined as regard to time cost flexibility and price.

### **1.7.2 Geographical Scope**

The study was conducted in Makerere University. Makerere University has been selected for this study because it's among other organizations that have engaged reasonably in e-procurement. In this regard, researching on the organization provided various measures through which organizational performance can be assessed.

### **1.7.3 Time Scope**

The research took a period of 2 months, to ensure that this research is conducted correctly, effectively and efficiently, as stipulated by the university

## **1.8 Significance of the study to the:-**

### **Management**

This study will be of importance to various stakeholders among them being the management of Private Corporation, procurement professionals, policy makers in both private and public sector and also scholars.

### **Policy makers**

The findings of this study will inform policy makers on the areas and aspects of procurement that will require policy interventions for the purpose of improving procurement efficiency. The study findings will provide mechanism that the country can establishing in regulating the procurement and management operations in the country.

### **Academia**

This study is scholarly in nature and hence will be of value to researchers and scholars both in academia and industry. The study will identify gaps that can be advanced in the interest of further scholarly discourse in the area of procurement measurement. Specifically the findings of the will identify academic gaps that will trigger further studies on organizations performance measurement.

## **1.9 Limitation of the Study**

The researcher faced the following limitation during his study;

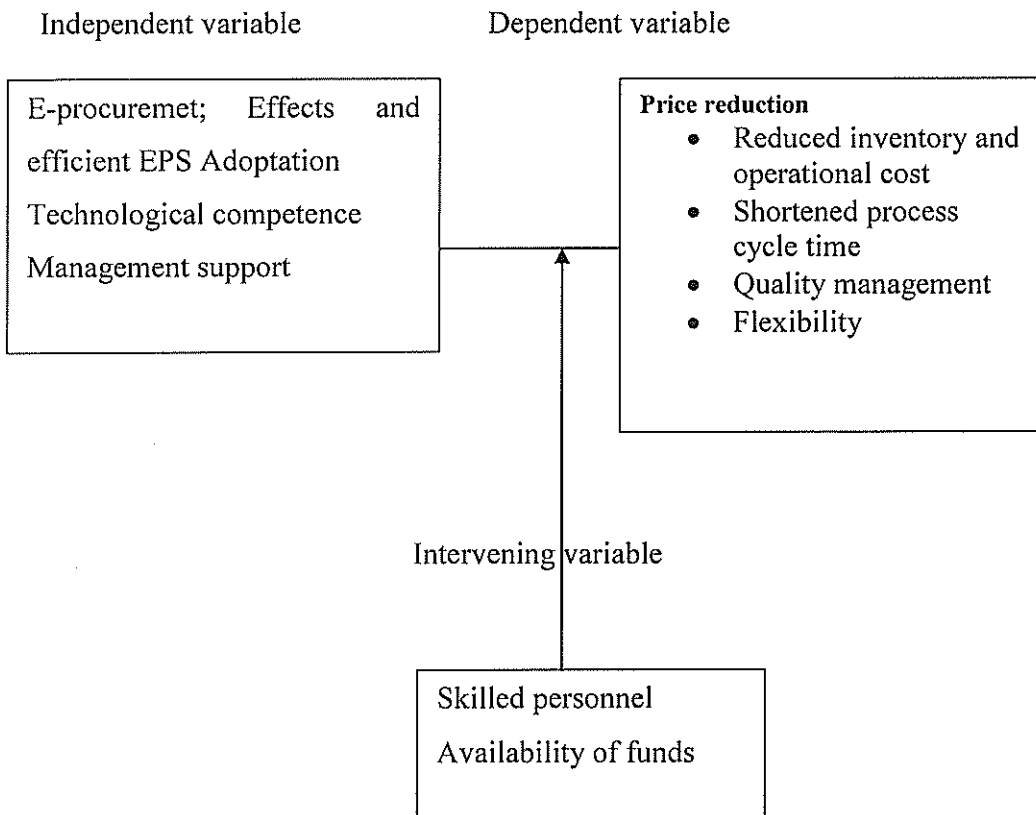
**Inadequate financial resources and time.** Due to this the researcher based on theoretical part rather than practical so the sampling techniques were applied in order to represent the



population in the study. Also in order to save time the researcher used both mobile phones and physical presence to speed up the respondents to fulfill the questionnaires.

**Problem in source of data.** The researcher found difficult to get some of desired information since some of the respondents were not cooperative to give out some information hence some questions were left blank.

### 1.10 Conceptual framework



Source: Researcher's formulation 2018

Conceptual framework shows a linkage between e- procurement and organizational performance, it indicates the variables I'm their measurable units: e procurement system (EPS) is measured through technology competence and management support process. The independent variable is organizational performance which include price reduction, time management, reduced operational and inventory cost, flexibility and intervening variable is measured in skilled personnel and availability of funds.

The presence of the positive Electronic Procurement System (EPS) has an influence on organization performance while absence of e- procurement system (EPS) has a negative impact of performance.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

Reviewing the existing literature around the topic of research interest is vitally important because it helps in understanding not only the body of knowledge that relates to the research topic e procurement and organization's performance.

##### 2.1.1 E-procurement

**Procurement** refers to the process of identifying and obtaining goods and service through payment, acquisition .it includes sourcing purchasing and covers all activities from identifying from potential suppliers through delivery from supplier to the users .Procurement should be managed effectively to achieve optimum value (Attaran&Attaran 2012).

E-Procurement refers to the use of Internet-based(integrated) information and technologies (ICTs) to carry out individual or all stages of the procurement process including search, sourcing, negotiation, ordering, receipt, and post-purchase review in organizations (Croom& Brandon, 2012). E-procurement is the generic term applied to the use of integrated database systems and wide area (commonly web-based) network communication systems in part or all of the purchasing process. As Thou (2009) defined electronic procurement as a significant and important development in the employment of e-business in supply chain management. While there are various forms of e- Procurement that concentrate on one or many stages of the procurement process such as e-Tendering, e-Marketplace, e-Auction/Reverse Auction, and e-Catalogue/Purchasing, e-Procurement can be viewed more broadly as an end-to-end solution that integrates and streamlines many procurement processes throughout the organization. It is the purchasing of goods and services on line or in electronic form.

##### 2.1.2 Organizational performance

The concept of organizational performance refers to the change in which the managers and governing body of an organization put into place and manage a program which measures the current level of performance of the organization and then generates ideas for modifying organizational behavior and infrastructure which are put into place to achieve higher output. The primary goals of organizational performance are to increase organizational effectiveness and efficiency to improve the ability of the organization to deliver goods and /or services. Another area in organizational performance that sometimes targets continuous improvement

is organizational efficacy, which involves the process of setting organizational goals and objectives in a continuous cycle. Organizational performance at the operational or individual employee level usually involves processes such as statistical quality control. At the organizational level, performance usually involves softer forms of measurement such as customer satisfaction surveys which are used to obtain qualitative information about performance from the viewpoint of customers (Greunen and Niekerk, 2010).

Verboncu (2009) contend that organizational performance refers to the change in which the managers and governing body of an organization put into place and manage a program which measures the current level of performance of the organization and then generates ideas for modifying organizational behavior and infrastructure which are put into place to achieve higher output. The primary goals of organizational performance are to increase organizational effectiveness and efficiency to improve the ability of the organization to deliver goods and /or services (Kirya, 2013). The performance of organizations in Uganda has been low with many organizations of recent registering low performance in their bid to expand. In 2016 many organizations were registered to be having performance constraints in their bid of operations and Makerere University in this case introduced e-procurement system.

## **2.2 E-procurement and organizational Performance**

Internal customer satisfaction, through E-Procurement function can usually contribute to the competitive position of any organization in many other ways than first through cost serving Kauffman and Kriebel (2008) presents a few of these was such as: reduction of quality cost e-procurement can reduce quality costs by making sure that selected suppliers deliver a product of service that does not exceed extensive quality control. E-Procurement can also reduce quality costs by making sure that the components bought do not lead to complaints on the user department or final product to the customer. Product standardization internal customer satisfaction can be enhanced through E-procurement due to the product variety concept. This can be achieved by reducing the number of different components and or the number of suppliers via set product standards. Contribution to product design and innovation of then innovation in industry come from suppliers or are results from intensive interactions between suppliers and user department in any organization. By actively encouraging this kind of interactions E- Procurement can contribute to fast and to continued innovation and improvement of product and user satisfaction (Chen, 2008). Hence if a company wishes to offer flexibility to its customers it might also have to demand it from its suppliers. The EDI and synchronized data system can make it cashier to inform suppliers about charge in

demand overtime fostering purchasing synergy. Many companies have a business unit structure where the business units are autonomous. In such a structure the business unit managers are responsible both revenue and cost, hence purchasing is usually done locally through E- Procurement, purchasing officers at the different units can make significant savings by coordination their purchasing with other units (Chen, 2008).

Hellen and Christine, (2008) argued that the benefits of e- procurement can be classified to hard benefits (such as price savings and process cost reductions), soft benefits (such as individual time freed up through more efficient processes), and intangible benefits (such as cultural change, financial approval for all spending, and high visibility of supplier performance). Wamego, (2005) found e-procurement system can bring benefits to the company such as reducing time to- market cycles, reducing material and transactions costs, and reducing stock levels. The use of e- equipment and systems improves quality, which in turn improves the level of output (Mukhopadhyay, 2007). This type of impact is mainly on the operational level and results in cost reduction, higher productivity and improved quality (Mukhopadhyay, 2008). Electronic commerce (e- commerce) tools provide the opportunity to enhance two elements of procurement process; communication and transaction aspects. As Davila and Gupta, (2010) noted, the reduction in staff is an important way of producing competitive advantage through reduced costs.

E-procurement gives an organization competitive advantage over its competitors. As a centralized department can oversee all procurement activities and different offices worldwide can access the same documentation when required, this gives a distinct advantage over the much slower process of having to post documentation between offices. This extends the supply chain beyond geographical boundaries to a much wider group. Suppliers can be monitored on timely delivery, quality delivery of products and services hence performing suppliers can be contacted in future. This raises other logistical considerations which may impact on scheme quality (Davila and Gupta, (2010). This implies that with e- procurement, every prospective supplier and buyer is always accessible to his/her convenience.

A study by (Hong, (2006) shows that only 18 percent of the Swiss companies analyzed used electronic product catalogs, auctions or requests for quotations in procurement in the year 2000. According to this study, however, many companies were to implement e-Procurement systems at that time. By extension, E-procurement leads to reduction in maverick buying. Maverick buying is when staff buys from suppliers than those with whom a purchasing

agreement has been negotiated. Thirdly, Lower Administration costs: in his research, Hong, (2006) argues that e-procurement results in reduction in paperwork and this leads to lower administration costs. Fourthly, Reduction in procurement staff: since most of the procurement process is done electronically, the number of staff needed to facilitate the process reduces. Schau, (2013) the role of electronic procurement in procurement has been backed as a new strategic view of supply chain management .The innovation of employing ICT in procurement systems can create value for enterprises through utilizing. ICT enabled resources on supply chain management. Previous studies have focused on the benefits of ICT on supply chain performance Mose, Njihia, & Magutu, (2013) conducted a study on the Critical Success Factors and Challenges in e-procurement adoption among Large Scale Manufacturers in Nairobi Kenya. They concluded that most of the organization have adopted ICT in procurement.

E- procurement system (EPS) is a web-based server application used to replace the manual procurement system. It offers improved spend visibility ,control and help finance offers match purchases with purchase order, receipt and job tickets, it also supports procurement areas such as transaction management, procurement management, market making, demand and supply sides and inter- organizational modules. Electronic procurement system (EPS) is used to communicate with both the buyer's and seller's information systems through Enterprise information system gateway.it also manages tenders through a web site and can be accessed any where globally and has greatly improved the accessibility of tenders for example system for acquisition management (ASM) . The adaptation of E- procurement system by the organizations will lead to increase the gross domestic products (GDP) significantly (hawking and stein 2004) ,Amitt and Zott, 2011).It is used by several organization to purchase both direct and indirect materials for purchases and in this case Makerere University is used to purchase direct and indirect materials for processes such as operation, sales, administration and increase collaborations between buyers and sellers visibility through invoicing and payment errors thus allowing Makerere University to have adecentralized purchasing decision through e-catalogue and improve in their transactions after training the staff on how to use E-procurement System.

### **2.3 Conceptual definitions of key terms**

The key terms related to this study were explained here to make it easier for readers of this study to fully understand the topic.

**Procurement** is not just purchasing or selling of the product and services but it is the umbrella term including lots of functions in it. (MacManus's, 2012), recognition of the differences in meaning between 'procurement' and 'purchasing is of relevance here.

Quoting the dictionary of purchasing terms, (MacManus's, 2012), explains procurement as denoting 'the combined functions of purchasing, inventory control, traffic and transportation, receiving and inspection, store keeping and salvage and disposal operations. Business dictionary (online) defines procurement as "combination of purchase planning, supplier research and selection, price negotiation, supply contract negotiation, inventory control and disposal" besides many other functions.

Procurement is the 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. Procurement is key activity in the supply chain. It can significantly influence the overall success of an emergency responses depending on how it is managed, procurement represent a large proportion of the total spend and should be managed effectively to achieve optimum value (Attaran & Attaran 2012).

**Procurement Process;** refers to the purchasing of goods and services, however it does not only comprises out of buying and paying but involves many other activities too, such as need clarifications, purchase order generating and so on. The goal of procurement process is to satisfy the need of the company by acquiring goods and services from preferred suppliers for the most valuable price (Mangan, 2008).

**E-procurement,** now if the function of E-procurement is talked about, as the name shows every process is done electronically which starts with placing the order by utilizing negotiation deals, purchase approval, online payment, invoicing and product distribution and some hi-tech system also provide facility of online ordering tracking.

**E-business,** it refers to any business conducted using electronic media, making some or all its revenue via internet technology.

**E-commerce** refers to the act of buying or selling goods or services over the internet.

**Business to Business (B2B)-** is the trading between firms, characterized by relatively large volumes, competitive and stable prices, fast delivery times and often, on deferred payment basis e.g. whole sale.

**E-procurement system (EPS)** is a web-based client/server application used to replace the manual procurement system. It supports procurement areas such as transaction, procurement management, market making, demand and supply sides and inter-organizational modules. EPS is used to communicate with both the buyer's and seller's information systems through the enterprise information systems gateway.

### **2.3.1 Core capabilities of the procurement system**

(Lankford, 2014), put forward the core capabilities that are essential that a system should possess to be classified as an e-procurement system consist of up to ten steps depending in the complexity of the buying organization policy.

**Requisitioning:** This functionality must be accessible to all individuals in the enterprises authorized to make purchases. This is where a buyer recognizes a need and place a request for good or services.

**Approval routing and workflow:** E-procurement system contain workflow capabilities and the ability to set up automatic approval routings by good, services, dollar value and any combination thereof. If one or more element of the requisition is not acceptable the requisition is denied and message is send to the requisitioner on why it is rejected.

**E-purchase order:** From the buyer perspectives the purchase order is probably the most critical component of the procurement cycle. Purchase order contains all relevant data pertaining to the order including the goods and services being ordered.

**E-receipts:** E-procurement system must also be capable of automatically producing and delivering goods and services receipt upon delivery when appropriate. To enable this, the system should integrate with barcode scanners to allow for automatic recognition of delivered goods.

**E-Invoicing:** This is document that defines and ultimately leads to payment. E-procurement should be capable of accepting and processing electronic invoices for those suppliers who do

not have system that automatically generate electronic invoice, it should provide an easy means of online creation either through a supplier portal or document scanning.

**E-payment option:** E-procurement should support multiple electronic payment option such as purchasing cards, electronic fund transfer, electronic cheque and automatic cheque printing.

**Taxation support:** The system should be capable of understanding relevant taxation codes and linking into standard tax tables to allow the buyer to accurately compute tax, reconcile tax charged by suppliers and determine any exemptions the organization is eligible for.

**Alerts:** The system must also be capable of raising alerts whenever an approval is required, an invoice is received with associated goods an invoice contains inaccuracies a payment is due or another important user defined (and user definable) event occurs.

**Self Service supplier portal:** It is critical especially from adoption and maintenance perspectives that supplier is able to self register, self activate, self update and at the appropriate time self terminate. They should be able to automatically send electronic invoice through the appropriate interface or create them manually through the portal. Furthermore e-procurement systems drive collaboration between buyers and supplier visibility into invoice and payment status and decreasing processing time and errors.

### 2.3.2 Benefits of E- procurement

(Hawking and Stein, 2014), provide a synopsis of the benefits of e-procurement from various historical studies as:

- i) Price reduction
- ii) Improved contract compliance
- iii) Shortened process cycle times
- iv) Reduced administration costs
- v) Enhanced inventory management
- vi) Improved visibility of supply chain capacity
- vii) Reduced operations and inventory costs
- viii) Negotiated unit cost reduction
- ix) Increased accuracy of production capacity



- x) Enhanced decision making
- xi) Improved market intelligence

Sourcing of the product and supplier which include identification, evaluation, negotiation of products and supplies can be done very easily from the best place for the best of prices. Most of the companies want their procurement process to be Publicly and strategically hidden from the outsiders which is only possible if done online and on same hand gives full transparency to the insiders (Hawking and Stein, 2014), increasing efficiency in the supply process with time management is also one of the hallmarks of e-procurement. As the ordering process will be done online with all negotiation deals it will result in reduction of cost and inventory management.

It is noticed that most organizations spend more than 30% of their income on purchasing goods and services. This is leading them to adopt e-procurement to reduce strain on their budgets and make it more cost effective. It further helps in getting rid of disadvantages of the traditional paper-based procurement method like error-prone, expensive and resource intensive (mainly human resource). Last but not least is that e-procurement provides market intelligence to the companies which help them in their supplier selection and dealings. Furthermore it enhances effectiveness which comes from 'increased control over the supply chain, pro-active management of key procurement data and higher quality purchasing decisions within organizations'.

### **2.3.3 Importance of E-Procurement System**

Among various categories of E-Commerce, B2B E-Commerce is the most important one as it accounts for the majority of electronic transactions in the business world and, therefore, has enjoyed a rapid progress in the last decade in terms of applications development and the adoption rate (Forrester Research 2000). One of the relatively recent B2B E-Commerce applications developed in the past decade is e-procurement system. Through the utilization of the Internet, e-procurement system improves the efficiency in various stages of procurement process including searching for sellers, processing (product request, approval and order generation), controlling procurement process and coordinating the exchange of information internally and externally with trading partners.

As a result, cost savings can be obtained through lower transaction cost, increased procurement process quality (accuracy), shorter cycle time, better inventory management,

while relationships with trading partners can be enhanced, risk can be better controlled and strategic sourcing can be exploited, (Subramaniam and Shaw, 2002). Turban *et al*, (2016). E-procurement system, therefore, has attracted organizations' attention particularly in the last few years and it has the potential to improve national productivity growth of any countries (Hawking and Stein 2014).

#### **2.3.4 Barriers for E-procurement:**

E-procurement is affected by some of the barriers which can be broadly categorized into three; Technological, Organizational and Environmental. (Galloway and Jamieson, 2013);

**Technology** always becomes a barrier if it is inadequate and insufficient. Furthermore, this situation become worse if there is no skilled staff to support or their information system knowledge is not up to the mark. If the organization's internal culture is not technological welcoming, which means that there is no top management or employees' support, then it can be the biggest hurdle as this is the foot step in adoption of e-procurement. Lack of integration with business partners or suppliers can also resist adoption of e-procurement system. Many researchers have highlighted that e-procurement benefits have not been fully delivered, and the main reason identified for this is the lack of tangible results is mainly because of the traditional resistance to IT-based process innovation.

**Cost** becomes a big issue whenever organization is heading to change; especially technological wise, as the implementation cost is too high and sometimes the amount of benefits accepted do not justify the amount of cost.

**External environment** has to be supportive from all sides if company wants the adoption to be success. External environment includes completion intensity, partner/supplier readiness and government regulatory and legal boundaries.

**Security of transaction:** Security is a major concern when working on the internet. (Edie et al, 2007), stated "The World Wide Web leaks such as a sieve. Data transmitted on it can be garbled and reassemble wrongly at the other end, or can display only partially because of incompatible software".

### **2.3.5 Impacts of E-procurement system:**

The introduction of a new information system in an organization requires changes in the way that organization works. Indeed, EPS leads to changes at different levels: at the organizational level, in the information system department, on the organizational culture and at financial level (Boer et al, 2001). Modifications at the organizational level refer to changes in the way people perform their work, particularly, when they want to buy goods and services they need. The availability of an EPS provides employees with the chance of introducing some atomization on specific buying activities, leaving paper forms, telephone calls, and faxes out of the acquisition process or at least, reducing their use significantly.

Meanwhile, new activities arise as a result of an EPS implementation. For instance, people in the information systems department have to deal with another type of technology, and new learning processes and maintenance activities have to be developed in order to use and manage the new system. Moreover, we must consider the fact that EPS maximize the level of operational efficiency when such system is integrated with legacy system (Frohlich and Westbrook, 2001). Such an electronic integration is a process that requires a great level of expertise, so hiring skilled people for the information system department may be necessary.

EPS may also induce a change in the organizational culture due to new organizational processes, e.g. order placing through computer instead of physical meetings. The impact of EPS have on financial accounts is also relevant because of the price reduction of goods and services, the necessary capital investment and the operational costs of the new system.

### **2.3.6 Achievements made by e- procurement in an organisation**

Many experience show that the adoption of computerized functions have an immense impact in an organization's success, some organizations have automated procurement processes to reduce transactional costs by reducing number of people involved in the process thus cutting down the cycle time from the order period to the receipt of goods and services. A vivid example is Scotland whereby a 7 year \$60m e-procurement deal in public sector and according to its director Tom Wilson is proud of its achievement. 'Since the programme started in April 2002 has processed more than 180,000 orders and \$500m worth of spend. Eight thousands users across more than 60 Scottish public sector bodies use the system buying goods and services from 12500 suppliers he says.

Also suppliers using it are impressed one of them is Steve Reeves who trades directly with 10 Scottish. Public sector organization using the technology, the system allows buyers to select directly in world electronic catalogue which carries 40,000 items. Mr. Wilson is proud of the fact that the Scottish executive has reduced its annual paper invoice tail from 320,000 to 50,000 (Coyle, 2003), computerization in procurement logistics and supply chain management has the following advantage. Improve control over management, reduce paper work, lower cycle time, reduce overall price paid, find new supply sources and improve planning, network and control.

According to Chopra and Meindl (2007) ICT is a key supply chain driver because it serves as glue that allows other supply chain drivers to work together with the goal of creating an integrated, coordinated supply chain. It's the key to the success of a supply chain because it enables management to make decisions over a broad scope that crosses both function and companies.

In another experience in 1999 IBM began doing business with 12,000 suppliers over the internet sending purchase order, receiving invoices and paying suppliers using World Wide Web, the internet simplicity reduced cost for IBM and its suppliers. IBM estimated that it saved \$500m in 1999 by moving procurement to the web "that is only the tip of the iceberg". Much of the saving is came from eliminating intermediaries, IBM uses the web to manage multiple suppliers thus improve quality and reduces costs. The use of ICT leads to economies of scale as it combines all organizations data and reduces costs, in order for the achievement of computerization in the organization to be successful it need to get top management commitment in all stages and the subordinates as it was key factor in helping Wal-Mart.

### **2.3.7 Accessibility of e-procurement system to all departments**

According to (Davila et al, 2013), adopting EPS in a firm necessitates the integration of this system with another information infrastructure including systems such as accounting, human resources, inventory management, accounts payable, production planning and cash management systems. This means making investment only in purchasing system is not sufficient for deriving benefits, besides, this would cause undesirable results such as lack of information, dual entries leading to complications, and increasing time consumption. Fig. 2.1 shows the importance of the accessibility of different users for EPS adoption.

### **2.3.8 Top Management Support and Staffs Participation**

Management support is highly needed in implementation of E-procurement system since this has a direct impact with level of process savings and also is an important determinant in achievement of organization goals. Active support of council management indirectly contributes to the acceptance of the system through its influence on different ways such as employees' involvement and customized training.

Management support is essential to allocate sufficient resources for IT investment (expertise and infrastructure), sponsoring training programs to staffs and allowing them to participate at various stages of IT system introduction (Fig 2.1). This also goes with creation of smooth rules and procedures, removing bureaucracy so as to support the EPS.

## **2.4 Related studies**

### **2.4.1 International studies**

Despite the proven benefits of using electronic procurement, (Edie et al, 2007), showed that only 48% of the respondents indicated that they were able to conduct e-procurement effectively. This might be an indication that those barriers are really impacting the good results and benefits for the implementation of e-procurement. Many organizations are seeking new ways to reduce procurement costs which typically represent the largest cost item in business operations, Da Vila et al (2003). According to industry sources, the indirect procurement expenditure in Australia are about AU\$150 billion per annum and each procurement process incurs about A\$125 per transaction (Neef, 2001). Most of the costs incurred are due to non-value added activities such as manual data re-entry, fixing errors, premium buys due to the inability to find competitive suppliers, inefficient search and evaluation of suppliers and their product offerings and the long process in reaching an agreement and obtaining approval before orders can be placed (Muffatto and Payaro 2004; Angeles and Nath (2007) presents the following challenges; Lack of system integration and standardization issues, e-procurement is still relatively new business application and is not usual to find a lack of benchmark able reference models, also challenge of software immaturity and lack of certain key features like invoicing, payment reconciliation or managing of different geographical jurisdiction tax structure.

Other challenges relate to immaturity of providers of e-procurement service and lack of supplier preparation and resistance of solution and users. Immature service providers may not be able to provide a complete suite of services, especially for more complex or advanced e-

procurement implementation projects. Also immaturity of suppliers and lack of preparation is a big challenges for many companies after all supplier need to learn how to generate catalogs, process electronically purchase orders how to use invoicing mechanisms among other tasks. According to Angeles & Nath (2002) Resistance of end users towards operating the e-procurement solution, this relate to behavior among the company employees. Some companies find it difficult to eliminate maverick buying even after implementation of e-procurement. This can be prevented by intensive end user training and educational programs. Companies also need to be aware of the problem

in integrating the e-procurement solution with other system. According to Davila, (2003) companies using e-procurement solution report savings of 42 percent in purchasing transactions costs. Another research by Croom and Brandon (2003) found that e-procurement implementation can have up to 75% cost reduction in procurement process costs and 16-18% reduction in purchasing price for indirect purchases.

Piotrowicz & Irani, (2010) stressed that there are many obstacles in implementing E-procurement, in some cases the benefit of implementing an e-procurement solution have been hard to evaluate. Companies should use various measuring methods in order to fully track and understand how benefits are distributed according to the level and area of their impact. At the moment, there has been little evidence on the realization of e-procurement benefits since the involvement of multiple parties/stakeholders in e-procurement systems presents challenges in measuring the impact (Subramaniam and Shaw 2012).

In addition, the meaning of success in the context of e-procurement is different from other contexts and, therefore, requires a unique measure which is not yet available (Seddon et al. 1999; Chua et al. 2015). As introduction of e-procurement systems requires significant investment to replace existing technologies, without clear evidence on the impact, many organizations are not motivated to adopt e-procurement systems (Subramaniam and Shaw 2002; De Vila et al. 2003). As per (Edie et al, 2007), some companies have a problem in acquiring the right platform to carry out e-procurement. The reason might be due to high costs involved in installing the proper IT system to have all the benefits of e-procurement process.

#### 2.4.2 Local Studies

(Francis,2004), took a study on inefficiency of application of ICT in Materials Management, a case of Tanga city council, the researcher elaborated on the use of modern control equipments, the use of modern techniques like computers together with the qualified personnel have to be the cornerstone of stores activities. The researcher pointed out that there is hesitation of management to adopt ICT into their operations and advises the top management to be more active in the process of accepting the modern technology. (Mchopa, 2012), took a study on adoption of e-procurement in Uganda, the researcher stated that e-procurement is a new phenomenon although some initiatives have already been undertaken by few Public companies especially owned by foreign investors in large part.

In the public procurement context, there are various organizational, technical and governmental challenges on the ground that defies the full integration and adoption of E-procurement in public procurement. Once these challenges are addressed effectively, the country will make good progress towards full application on e-procurement especially in public procurement, the challenges include but not limited to poor technological infrastructure, inadequate funds for capital investment, risks, unsupportive legal framework and shortage of technical knowhow. Also there is shortage of technical support, security of data transaction, poor network infrastructure and unstable power supply, (Mchopa, 2012). (Yohana A Mutaba, 2014), took a study on adoption of e-procurement and its role on reduction of corruption and frauds in public procurement in Uganda, the researcher stated that Adoption of electronic procurement in public is very crucial to the development and general success of procurement and supplies. It should be noted that despite the fact that e-procurement has positive contribution to the development and success of procurement, there are factors that constraints public sectors and government at large in adopting electronic procurement.

Factors constraining adoption of electronic procurement in public procurement may commonly include: Development of experts on e-procurement, Capital investment on technological infrastructure, Development supplier capabilities, many users believe that e-procurement will make their job more difficult or cumbersome (Resistance to change), Lack of common technology standards, Complicated procedures and extended Relationships. Chungu (2006) reported on “Effective using of E-procurement system in inventory Management” concluded that most of Central government, government offices are relatively weak in computerized procurement related functions. The researcher reveals that even though

many junior staffs respond to computerized system in their operations, but respondents from senior and management staff proved that there is no high need for computerization of the procurement processes. The report continues to indicate that the government must train more people in the field of information technology (IT) so as to enable them to advance in technologies.

### **2.4.3 Summary**

The above chapter reviews the various theories that inform the independent, intervening and dependent variables. The chapter explores the conceptualization of the independent, intervening and the dependent variables by analyzing the relationships among the variables. In addition, empirical literature in a wide range of studies have considered organizational performance measurement as being the most basic concept used to determine the income and performance of economic entities, industries and even whole economies as well as empirical review.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter consists of research paradigms, design, type of measurement, data collection methods, sources of data, sample size and sampling procedures, the description of the study area where data have collected, the reliability and validity, data management and analysis.

#### **3.2 Research Paradigms (philosophy)**

For the purpose of this study both research philosophies were used that was quantitative and qualitative. The researcher used quantitative design to obtain different measurements of data and qualitative design to obtain different views and opinions from people.

#### **3.3 Research Design**

(Kothari, 2014), presents it as a structural conceptual arrangement for collection and analysis of data, it constitutes a blueprint for the collection, measurement and analysis of data. Research design is a master plan of method, procedures that should be used to collect and analyze the data needed for decision making.

For this study it was suitable to use descriptive design as the research aimed at providing conclusive information from the established particular cause of action; whereby information was collected to get different opinions about the barriers for using e-procurement system. Causal research design was adopted to establish cause-effect relationship so as to allow the researcher to investigate changes in one variable while manipulate one on the other variables under controlled conditions. Moreover, case study was also useful as e-procurement is a complex technology hence requires organizational context in order to understand the phenomena well and to have in-depth contextual information to interpret the barriers for using e-procurement system.

#### **3.4 Measurements**

The researcher used parametric type of measurement which included interval and ratio scales so as to have reliability and validity of data.

#### **3.5 Data collection approach**

The researcher used both qualitative and quantitative design so as to obtain reliable information and draw the conclusion easily. Quantitative design provides the fundamental

connection between empirical observation and mathematical expression of quantitative relationships. Qualitative design provides opportunity to explore a subject in a real manner as possible. This approach involves an in depth understanding of the behaviors of the clients and the staff and the reasons that govern their behavior, (Kothari, 2016).

### **3.6 Data collection methods**

#### **3.6.1 Questionnaire**

This is a method of collecting primary data where by prepared questions prepared to the respondents and request to complete them and return them to the researcher (Krishnaswami, 2013). This can be open ended type of questionnaire where by the respondent is free to answer the question according to own opinion and closed end questionnaire this is where a respondent is been fixed to answer the particular type of question by using options provided (Kothari, 2016).

Open ended type of questionnaires were asked to the respondents to let them feel free to answer what they know, also closed type of questions was used so as to obtain a specific opinion. These methods help to obtain data at a lower cost and with minimum errors. The researcher adopted both open and closed ended questions to ensure sufficient data collection.

#### **3.6.2 Interview Method**

This technique includes structured interview or formal interview and semi structured interview. Structured interview where a list of specific question that guide the process is prepared prior to the interview. Semi-structured interview is conducted where a broad type of questions are asked to interviewers while proceeding with their own way. Semi-structured interview is useful if the researcher has a clear theoretical understanding of the topic which allows the researcher to create an appropriate questionnaire Semi-structured interview means that there is some flexibility in the wording and order of the questions. The script of the interview is not preplanned and the order of the questions can vary, the interviewer can also ask for examples and so on to get more detailed answer (Eriksson & Kovalainen, 2008). The major advantage of semi-structured interview is that the materials are somewhat systematic and comprehensive, while the tone of the interview is fairly conversational and informal (Eriksson & Kovalainen, 2008). The researcher preferred semi-structured interview for the IT and procurement heads of department.

### **3.7 Types of data**

Data was collected specifically intended to suit the research questions. The sources of data were both primary and secondary.

#### **3.7.1 Secondary Data**

These are data which are resulted from secondary sources, so are data already exist (Mugenda, 2003). For the purpose of this study researcher collected the available information from different sources such as books, internet searching, journals and different research materials done by other researchers. The aim was to relate, compare and draw conclusion from existing problem.

#### **3.7.2 Primary Data**

These are first hand information collected through methods like observation and interviews (Krishnashwami, 2003). In other way these are kind of data extracted fresh from field through interview, questionnaire and observation. The researcher used questionnaire methods to collect primary data.

### **3.8 Sampling Techniques**

This is a process of selecting a number of individual or objects from a population such that the selected group contains elements representative of characteristics found in entire group (Kombo & Tromp, 2006). (Kothari, 2004), defines a sampling as a definite plan for obtaining a sample from a given population. It is the process of selecting a sample items from the population. Sampling obtained from sample which is a fixed part of statistical population whose properties are studied to gain information from the wholes. Sampling is a process of drawing a sample (part of the population) from the large population so that population may be presented by few units (Krishnaswami, 2003).

The sample was selected using purposive and random sampling so as to have a targeted sample with required information. Purposive sampling was basically used to obtain the key respondents (head of Procurement and IT departments), also to choose data, documents and books that were related to the study. This technique allows items to be selected, deliberately as according to their suitability of the study.

Simple random was employed to select representatives from different departments because it gave equal opportunity to each element in the department to be selected.

### 3.8.1 Sample and Sample Size

It is the number of item to be selected from the universe constitutes a sample, the size of the sample should neither be excessively large nor too small, and should it be optimal (Kothari, 2004:pp56). The researcher chose another key informant who was the head of Procurement and IT department who believed to be a representative sample of e-procurement user community. And out of 150 from the organizational employees A reasonable sample size was taken due to cost and time limit and effective management and control during the research study. The study involved 30 respondents selected randomly and reasonably from different departments. Data were analyzed and expected to represent the views of all staff concerning the barriers for using e-procurement system

**Table 1: Indicates the Number of Employees Selected In Each Department**

s/n	Department	Population	No of staff selected
1.	Finance Department	5	3
2.	Marketing department	10	7
3.	Sales department	10	7
4.	Human resource department	4	1
5.	IT	5	4
6.	Store department	30	4
7.	Imports / procurement department	6	4
	<b>Total</b>	<b>70</b>	<b>30</b>

### 3.8.2 Sampling Procedures

The researcher used purposive and quota non probability sampling in that way all the reliable information were likely obtained. Quota sampling is a judgmental sampling with the constraint that a sample includes a minimum number from each specified subgroup in the population.

**Judgmental or purposive** sampling, respondents were selected based on the reasonable judgment that they were the ones who were the most likely to provide the desired information. This is a non probability sampling whereby respondents were selected because of prior knowledge suggests that it is representative or because those selected have the needed information (Mugenda, 2013). Under this method samples were obtained through deliberate researcher's judgment and depended on the demand of the situation such as impossibility, lack of sufficient resources, time constraints and so on.

### **3.9 Reliability and Validity of Data**

Reliability, is the ability of the instrument to measure consistently the phenomenon it is designed to measure, the reliability can be tested by finding out such things said a) who collect the data b) what are the source of data? c) Whether they are collected by using proper method d) at what time they are collected e) is there any bias of the complier? f) What level of accuracy is desired and is it achieved? (Kothari, 2014).

Validity implies applicability and usefulness of the data obtained through such reliable design and all the way to conclusive findings (Kothari, 2014). To ensure reliability and validity of data, reliability was addressed by developing a case study protocol and the summary of definitions concerning the barriers for using e-procurement system. On the other hand validity was addressed using data collected from multiple sources from other employees who were the users of e-procurement system.

### **3.10 Management and Analysis of Data**

Data management is systematically organizing mass of raw data collected in manner that will facilitate analysis of data, it includes identifying and correcting errors in data, coding and storing it in appropriate form (Kothari, 2004). The approach to qualitative data analysis included simplifying, focusing and reducing the rich data into its core ideas. The qualitative data was analyzed and reduced to the final part, drawing conclusion out of qualitative data, they argue that there is a fine line in interpreting data in light of prior theory and researchers own ideas and biasing the conclusion.

Data we reanalyzed, summarized and organized in a meaningful way (through QDA minor lite, EPI info and SPSS statistics software); data were examined and drawn conclusion by using both quantitative and qualitative techniques. Qualitative data analysis in this study based on logical interpretation and explanation of the data that were collected. Quantitative data was analyzed and presented through tables, graphs and charts. The analysis of data in this research began with summarizing the data collected. Researcher identified if there was any similarities or other linkages between the answers. Once all data were carefully analyzed, the researcher tried to find all the appropriate information related to the research problem and sub question. By identifying the essential information related to the research problem the focusing and reducing of data was made much easier. Finally, the data was focused to answer the research questions and the last part was drawing conclusions.

### **3.11 Expected Results**

The researcher expects this study to come up with barriers facing organization team members as they adopt and use E-procurement system and how do they manage those barriers in Makerere University. The results will be of a great significance to the stakeholders inside and outside of the organization as it will give ways to overcome the prevailing barriers.

## CHAPTER FOUR

### DATA ANALYSIS

#### 4.1 Introduction

In this chapter the research findings were discussed. After collecting different data concerning the barriers for using of E-procurement system at Makerere University findings of the research were presented and analyzed according to the objectives and the research questions of the study. The findings of the research were addressed in two different groups. First group data were collected from staff members of different departments, second group data were collected from procurement and information technology departments. The following were the findings;

**Table 2: Education Level of the Respondents**

Education level	Frequency	Percentage (%)
Advanced / secondary	5	16.6
Certificate / diploma	7	23.3
Bachelor degree	10	33.3
Masters degree	6	20
PhD	2	6.6
<b>Total</b>	<b>30</b>	<b>100</b>

#### Primary Data, 2018

So the researcher found out that the knowledge of the staffs was satisfactory enough because having e-procurement system also need to have understanding on computer with its software, unless otherwise there could have no meaning of establishing electronic system while users do not know how to use computers.

**Table 3: Age of respondents**

Age	Frequency	Percentage (%)
18-30	12	40
31-50	16	53.3
Above 50	2	6.6
<b>Total</b>	<b>30</b>	<b>100</b>

#### Primary Data, 2018

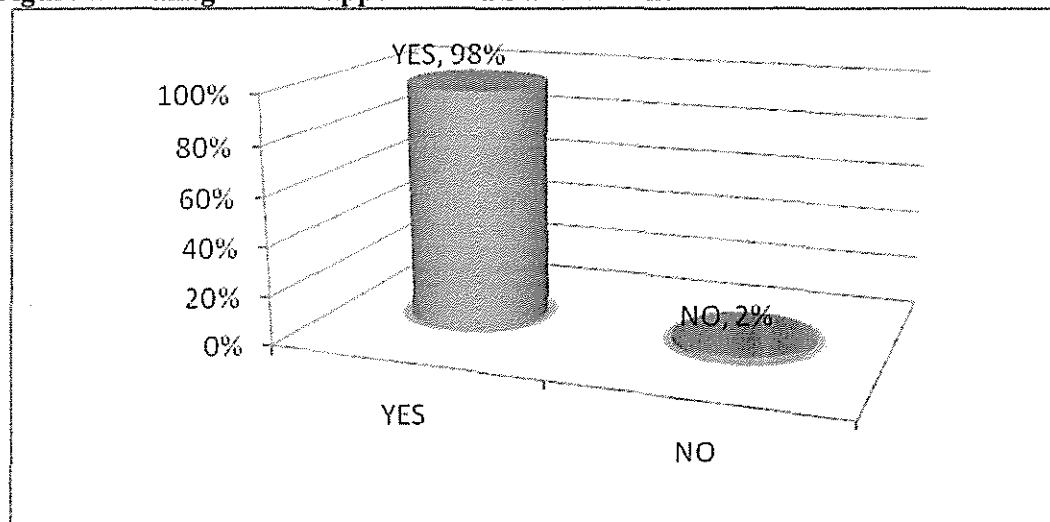
## 4.2 Management Support on EPS Investment

At this variable data was collected basing on how the organization supported the EPS investment.

### 4.2.1 Management Support by Providing Enough Resources

Here the researcher wanted to find out if the management provides enough resources for EPS adoption.

**Figure 1: Management Support on EPS Investment**



**Source: Researcher 2018**

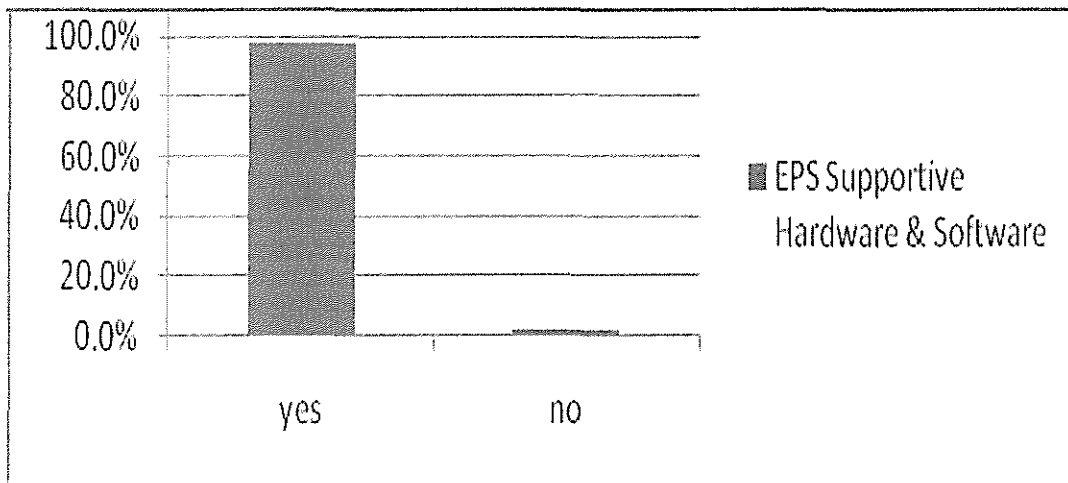
From findings 98% of the respondents said yes that Makerere University Management Supports EPS investment by ensuring that resources are available like hardware and software installations, alternative power supply and any associate costs. The remained 2% of the respondents said no. Galloway and Jamieson, (2003); categorized clearly into three the main barriers for EPS adoption which are; Technological, Organizational and Environmental. According to the data collected this theory was revealed to be applicable at Makerere University since at organizational level the findings revealed the capability of the firm to support EPS investment technologically and by considering the environment.



### 4.3 Management Support to Ensure Enough Hardware and Software

The researcher aimed to examine whether the Makerere University management was capable to ensure enough hardware and software for EPS investment. The figure below gives more elaborations;

**Figure 2: EPS Supportive Hardware and Software**



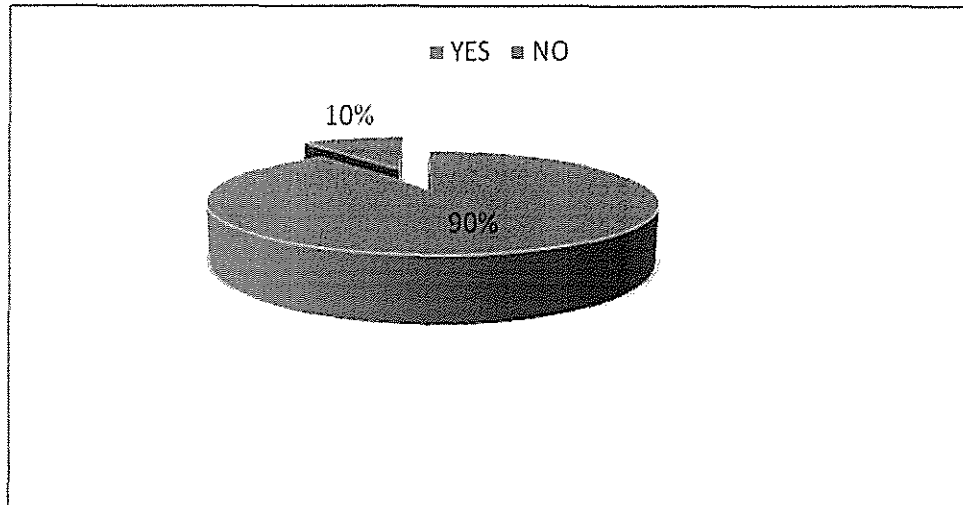
**Source: Researcher 2018**

The findings show that the hardware and software were well set where by 97.7% of the respondents said yes while 2.3% said no. So this reveals that the top management supported the e-procurement system through the budget allocated to the hardware together with software installations. Here the researcher wanted to find out if the management provides enough resources for EPS adoption whereby the findings show that 98% of the respondents said yes that Makerere University management supports EPS investment by ensuring that resources are available like hardware and software installations, alternative power supply and any associate costs. The remained 2% of the respondents said no. See figure No. 4.1 below for more clarification. Moreover the findings show that resources like generators, Public transformer and video conference provided a big assistance to run EPS by assuring power supply and conduction of electronic meetings respectively.

#### 4.4 Management Support to Ensure System Safety

Here the researcher wanted to check if the management ensures system safety; refer to the figure below.

**Figure 3: System Safety**



**Source: Researcher 2018**

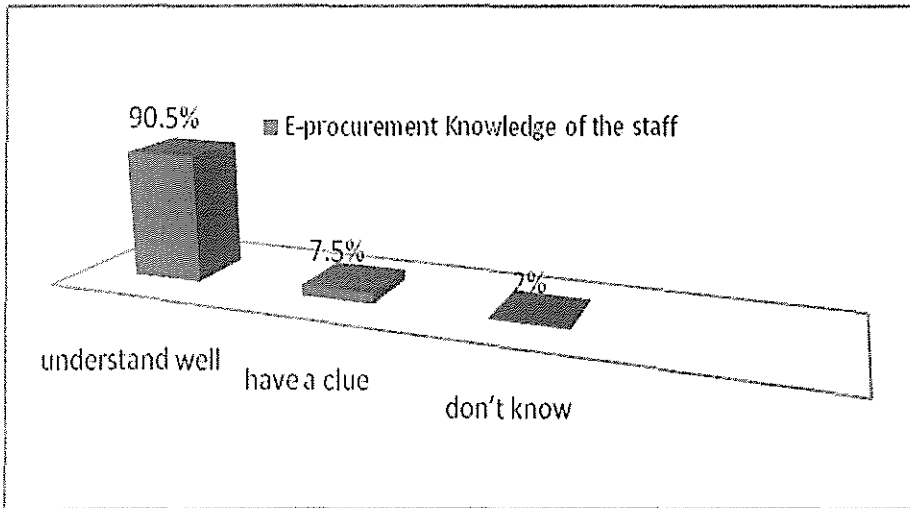
From study results, 90% of the respondents said yes and find the system is accurate and has no chance for fraudulent activities, while 10% of them said no as others have already presented the issue of editing the document after approval. The Makerere University management through the departments of IT and Procurement tries to improve the system to their level best to eliminate the weaknesses. With reference to the proposed literature by Edie et al, (2007) who stated that “The World Wide Web leaks such as a sieve. Data transmitted on it can be garbled and reassemble wrongly at the other end, or can display only partially because of incompatible software

#### 4.5 Technological Competence of the Staff on EPS Application

The researcher aimed to find out if the users understand e-procurement system and able to use it, also to check if the users got enough training on how to use e-procurement system

#### 4.5.1 Users' Understanding on E-Procurement

Figure 4. E-Procurement Knowledge of the Staff



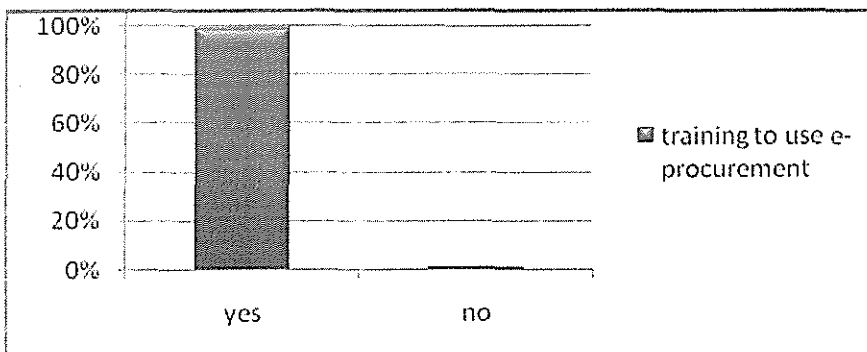
Source: Researcher 2018

The findings show that many users understand e-procurement well while few users just have a clue. 90.5% of the respondent's defined e-procurement well with the necessary key terms, while 7.5% of them just have a clue and 2% of them did not fill anything, and left the space blank. E-procurement is defined in different ways by different authors; Vesendaal & Brinkkemper (2013) said that is a technology designed in acquisition of goods over the internet. Jessop, (2008) said that it is the use of electronic method in every stage of buying from identification of requirements to payment process for required service.

#### 4.5.2 Users' Training to Use E-Procurement System

Users from many departments got training on using e-procurement;

Figure 5: Training to Use E- Procurement

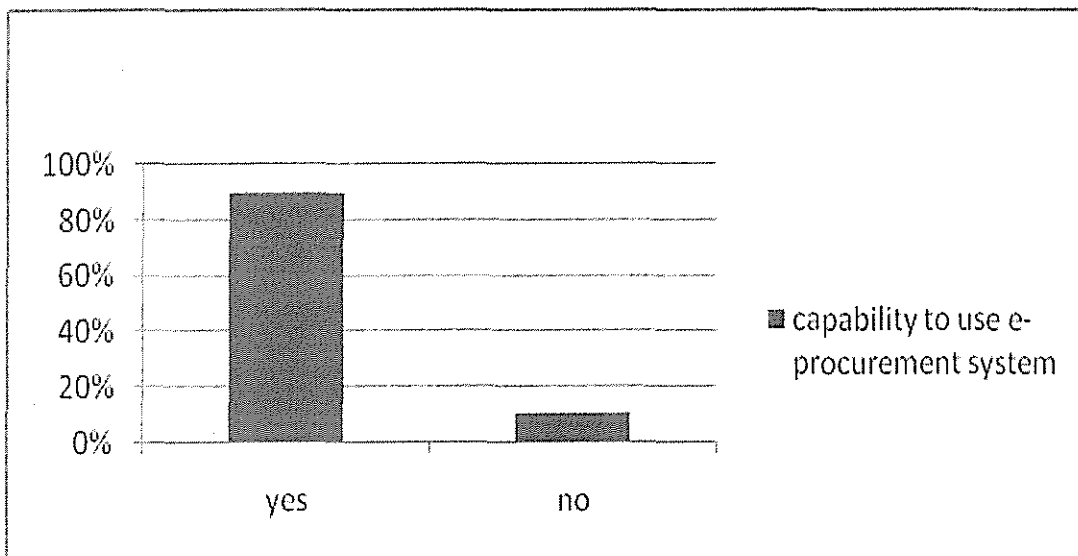


Source: Researcher 2018

The findings show that 99% of the respondents have acquired capacity building training on using e-procurement system and the training is conducted especially when the system is improved. While 1% of them didn't attend training and have acquired knowledge from other users. So Makerere University used to offer training to the users but very few of them did not attend because they were new employees. As said by Angels & Nath (2012) sometimes employees find it difficult to eliminate traditional buying even after implementing of E-procurement hence they suggested that there should be intensive end users training and educational program. Knudsen (2003) states that despite of such advancement on adoption of e-procurement, many entities put substantial low use of electronic purchasing and opt for manual purchasing instead. According to the findings the above theory was not supported at Makerere University because major of the purchases were done electronically and minor purchases like office stationeries was done manually.

#### 4.5.3 To Check if the Users are Capable of Using EPS

**Figure 6: Capability to use e-procurement system**



**Source: Researcher 2018**

The findings show that 90% of the respondents are capable of using e-procurement system while 10% of them are not capable and mostly the elder ones. E-procurement system needs to be established with adequate capacity for everyone in the organization to be able to learn and use it in an easy way.

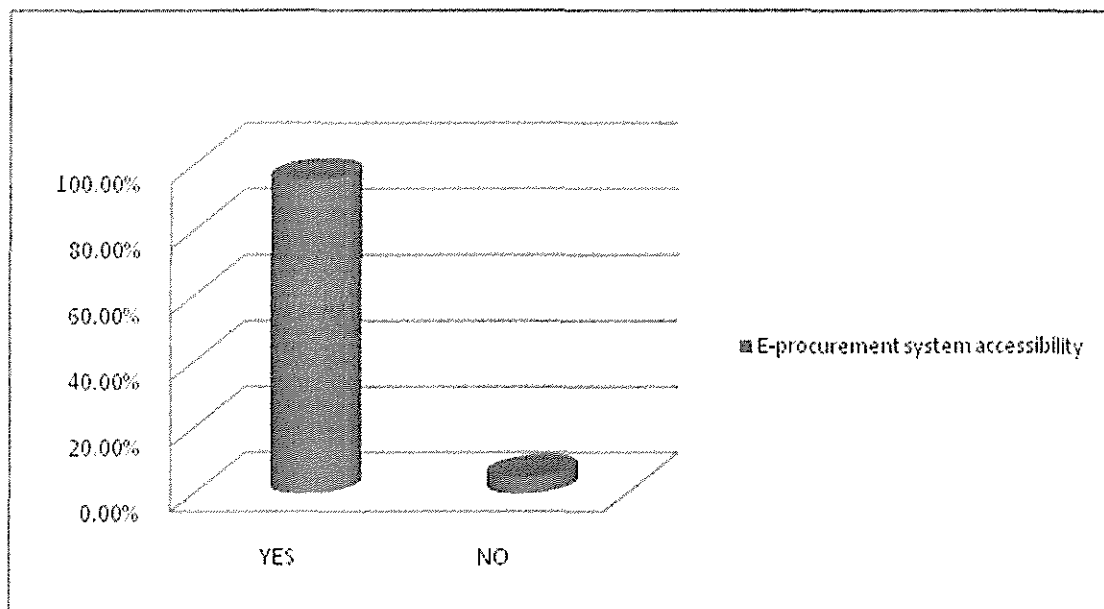
#### 4.6 The Accessibility of E-Procurement System to All Departments

Here the researcher's purpose was to find out if all departments in Makerere University have the accessibility of using E-procurement system. The researcher realized that there is relationship between using e-procurement system and age and education level of the respondents, of which determines computer knowledge of the respondents and the training attained. Demographic characteristic of respondents created a link on data validity and reliability given the fact that significant information for the study would have high degree of reliance if it has given by a matured and literate people, with more exposure on using E-procurement Management system.

##### 4.6.1 Accessibility of EPS to all Departments

The researcher wanted to know if all departments can access EPS.

**Figure 7: E-procurement System Accessibility**



**Source:** Researcher 2018

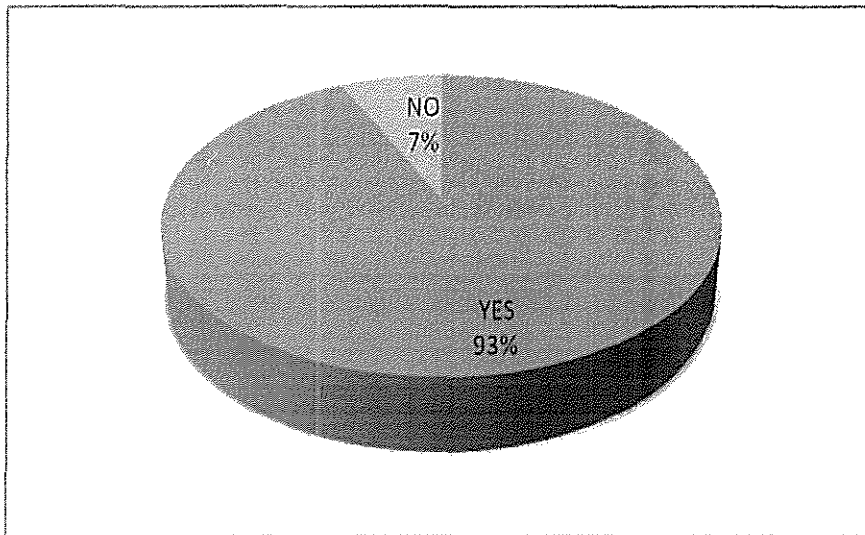
The following data were collected, out of 30 respondents 95% they said yes while 5% of them said no, this depicts that many departments are accessing the e-procurement system though there are very few of them who do not have accessibility to e-procurement. This depicts that many departments were accessing the e-procurement system though there were very few of them who did not have accessibility to E-procurement. Mchopa (2012) said that, this accessibility is a challenge to various organizations on full integration on

using e-procurement system. Makerere University has tried to reduce this problem and kept it to the minimum.

#### 4.6.2 Application of EPS

Here the researcher wanted to check if all departments were fully using EPS as seen below;

**Figure 8: Using E-Procurement System**



**Source: Researcher (2018)**

Findings revealed that 93% of the respondents said yes while only 7% of them said no. The researcher found out that some respondents opted for traditional procurement while many of them were fully using e-procurement system. L.Boer *et al*, (2011) said that, the introduction of new information system in an organization requires changes in the way that organization works. In deed EPS leads to changes at different levels like information system department, organizational culture and at financial level. The author above is revealed to be supported at Makerere University since most of the activities done are electronically based hence benefiting the company by price reduction, save time, improved visibility of supply chain capacity, reduced administration cost and improved market intelligence.

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes the research and its most important findings together with suggestions from different authors from literature review discussed in chapter two, also present some topics for further studying.

#### 5.2 Conclusion

The general objective of the study was to assess the effects of E-procurement in enhancing project performance in a Public sector organization with Makerere University as a case study, after identifying these effects, researcher move on evaluating the extent to which management supports EPS investment through assessing technological competence of the organization and examining whether the organization can fully access E-procurement system.

Using the mean scores in the responses, researcher realizes that the technological knowhow of the staff was satisfactory only to certain extent since all users were trained except the new staffs and some few who didn't attend the program (especially casual workers who are dealing with elevating goods in store and warehouse). However more training is still needed for improvement and to face new technological changes. Kalakota & Robinson, (2001) advises that e-procurement system needs to be established with adequate capacity for everyone in the organization to be able to learn and use it in an easy way.

In this world of science and technology, and business competition, the company needs to invest more in computer knowledge, good customer care and building competence in skills and knowledge. The Company has to mould itself to a learning organization where as Senge (1990) points learning; *organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together*".

In this the organization need to discover how to tap people's commitment and capacity to learn at all levels.

### **5.3 Recommendations**

**Top management support** the researcher recommends that management should closely show their willingness to provide the necessary resources to the implementation of IT application that is assurance of the accessibility of e-procurement system to all departments, resolving disputes resulted from the introduction of the IT system and then encourage staffs on using new e-procurement technologies through intensive training, trainers' support and user involvement.

**Availability of Video conferencing;** this can enable individuals in distant locations to participate in meetings on short notice, with time and money savings. This technology can be used in conjunction with desktop video conferencing to enable low-cost face-to-face business meetings without leaving the desk, especially for businesses with widespread offices. Since EPS is among the businesses which involve communication with far distance offices, video conferencing is suggested to be more economic if it could be applicable as far as Makerere University is concerned.

**Software selection,** selection of the software must be carefully done; enough research on the advantages, disadvantages, strength and the weaknesses of the software should be well addressed and well understood even before installation so as to have a safe, accurate, fast and a reliable system with enough control for fraudulent activities.

**Continuous training is needed.** Regular training is recommended, users training refers to the process of providing employees with the logic and overall concept of a complex IT application or software that is being introduced within the organization. Training helps employees in two distinct ways; it helps in the transfer of knowledge from vendor consultant to employees about why IT system is needed and how it should improve their work, this in turn address courage to employees about the IT system and the software and thus create their confidence on using the system.

On the other hand training helps employees to know about the features of the software and thus help in developing a familiarity with the system, by facilitating



their learning of the interface and appropriate use of the system process. Also adequate knowledge should be provided to staffs and suppliers developing a clear framework for e-procurement and proving enforcement and monitoring on such usage of e-procurement system.

**Readiness of the trainers,** Trainer support is an important factor because a trainer plays a crucial role in shaping the ultimate success of any IT application by facilitating users' acceptance and knowledge. Therefore the trainers should be well prepared before they give training to the users as they are the one who make the users' mindset to think either positively or negatively about the system. Also in case of breakdown should be readily available, full equipped and helpfully in a friendly manner.

**Readiness of suppliers;** EPS investment is not satisfactory when the partners/suppliers are not using the same system hence supplier involvement in EPS investment is very important. For our country more capital is needed to be invested for EPS adoption especially for public agencies so as to enable most of the suppliers and their related purchasers to practice effectively this system.

#### **5.4 Suggestion for Further Research**

I suggest that other people who are interested to do the research on E-procurement in projects performance should do the research to governments/private/organizations to see if the same findings will be established since entire research on this topic has been carried out to the Public organizations.

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**APPENDICES**  
**QUESTIONNAIRES**

**Research questions to all departments**

**Dear respondents,**

I am **AJUNA DAPHINE** I am kindly requesting you to answer the under mentioned questions as part of the fulfillment of my research paper for academic award of Award Of Bachelors Degree in Procurement and Supply Management of Kampala International University. The research is centered on **“Critical assessment on effects of E-procurement in enhancing Project performance among Public sector Organization in Uganda”** A case of Makerere University. The questions are purely for academic demand and not otherwise. So the information that will be provided will be used for the stated purpose and will be treated with confidentiality. I wish to express my sincere appreciation for the assistance you will extend to me in this regard.

**PART A: General Information; (Tick/Fill where appropriate)**

i) Gender

a) Female ( )

b) Male ( )

iv) Educational Level.....

v) Age 18 – 30 ( )

31 -50 ( )

Above 50 ( )

**PART B: SYSTEM SUPPORT (Fill/Tick where appropriate)**

vi) The executive of the firm have sufficient resources to support EPS adoption and management

a) Yes..... b) No.....

v) E-procurement system is accurate and secure.

a) Yes..... b) No.....

vii) Makerere University system hardware and software are enough to run all electronic procurement activities.

a) Yes.....

b) No.....

**PART C: Other related Questions (Tick where appropriate)**

viii) Have you got enough training and knowledge to support you using e-procurement system?

.....  
.....

ix) What problems you are facing when using E-procurement System?

.....  
.....

x) Suggest what should be done to counter those problems

.....  
.....

xi) Does your department have any access to E-procurement system?

Yes ( )

No ( )

xii) Are the users capable of using e-procurement system well?

Yes ( )

No ( )

xiii) What are the problems you are facing when using E-procurement system in this organization?

.....  
.....

xiv) What are the achievements obtained since the establishment of E-procurement System?

.....  
.....

xv) Suggest what should be done to counter the mentioned problem

.....

.....

.....

**END**