

**THE ELECTRONIC PROCUREMENT ON  
OPERATIONS EFFECTIVENESS IN AN ORGANIZATION.  
CASE STUDY TOTAL HEADQUARTERS UGANDA**

**BY**

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**A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILMENT  
FOR THE AWARD OF A BACHELORS DEGREE IN SUPPLIES  
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## DECLARATION

I NUWAMANYA RICHARD, do here by declare to the senate of Kampala International university that this research report is entirely my own original work and that it has not been submitted to any other university or institution of higher learning for any academic award.

Signed  .....

Date 18.07.2010 .....

NUWAMANYA RICHARD

## APPROVAL

I certify that research under the research topic “ Electronic Procurement on operations effectiveness in an organization” was done by the student under my supervision.

Signed.....*Micheal Ruteganda*.....DATE...18/01/10.....

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## DEDICATION

This report is dedicated to my Parents, brothers, sisters and friends for your support, may God Bless you.

## ACKNOWLEDGEMENT

I wish to express my sincere appreciation to a number of people who have been instrumental in making this dissertation a success.

Much thanks go to my supervisor Mr. Ruteganda Micheal and Mr. and Mrs. Barugahare Aloysius for his time, and professional advice.

To my special friends who have been supportive in all ways especially Andrew Tumusiime.

Finally, to my family i cannot write all your names but am grateful for your financial and parental support.

**Above all, to the almighty God who has made it possible “am what I am because of you”**

## ABSTRACT

The study conducted was about Electronic Procurement on operations effectiveness in an organization. The research was conducted from Total Headquarters fuel selling company located on 7<sup>th</sup> street, industrial area, Kampala city.

Organizations are feeling the pain of depending on paper and people intensive processes, The study to find a solution to this problem was guided by these objectives: establishing the different forms of Electronic Procurement used, establishing the benefits that are realized from use of Electronic Procurement and finding out factors that hinder adoption and implementation of Electronic Procurement in an organization.

The study used a descriptive research based on a sample size of 30 respondents. The researcher targeted staff from the purchasing department, stores, finance and user department. Questionnaires and interviews were the tools used by the researcher to collect data.

The research findings were analyzed and presented using tables, charts and graphs.

The researcher found out that organizations use different forms of Electronic Procurement, internet and Electronic Request for Quotation being the most widely used.

Electronic Procurement is beneficial to both the organization and the industry at large thus much efforts should be put to this strategic function, however there are many set backs that affect the success of Electronic Procurement which need to be addressed with keen interest.

The findings revealed that minimizing costs and improving organization's performance are the main benefits realized from use of Electronic Procurement

The researcher took keen interest to find out why the organization was finding it hard to fully install and depend on Electronic Procurement, It was found out that there were high costs involved related to installation, maintenance and supervision, low levels of technology advancement in the industry was also a major hindrance to the use of Electronic Procurement.

Finally the researcher recommended that organizations should benchmark on other organizations that are using Electronic Procurement systems already so as to have an accurate cost- benefit analysis, refresher workshops should also be used so as increase on awareness about advantages of Electronic Procurement.

## LIST OF ABBREVIATIONS

**PPDA**-Public Procurement and Disposal of Public Assets.

**ERFQ**-Electronic Request For Quotation.

**ERFI**-Electronic Request for Information.

**CIPS**-Chartered Institute of Purchasing and Supplies.

**EOI**-Expression of Interest.

**RFI**-Request For Information

**ERP**-Enterprise Resource Planning.

**SME'S**-Small and Medium Enterprises

**MRO**-Materials, Repairs and Operating Consumables.

**ERFP**-Electronic Request For Proposal.

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# CHAPTER ONE

## 1.0 INTRODUCTION

This part presents the background of the study, the statement of the problem, objectives of the study, significance of the study, scope of the study and definition of the terms.

## 1.1 Background of the study

The function of procurement has been undergoing numerous changes in order to gain competitive advantage over competitors; because of this, most organizations are adopting Electronic procurement as a way of cutting on their overall procurement costs.

Procurement encompasses all activities involved in obtaining material and services and managing their inflow into an organization towards the end user .it includes obtaining manufacturing supplies for an assembly line as well as obtaining paper and pencils for a bank (Hough and Ashley, 1992; Zenz and Thompson, 1994)

According to Public Procurement and Disposal of Public Assets Authority, 70% of most organizations resources are spent through procurement thus there is a great need to control this strategic function in the organization.

It's due to increased cost competition that most organizations have revised their ways of operations, emphasizing means and ways that will reduce costs as much as possible.

Operations involves all activities with in an organization thus if well managed with incorporation of a relevant, efficient and effective electronic procurement system, an organization will realize a tremendous boost in overall cost reduction.

Electronic procurement refers to the purchase of goods and services electronically by any means, which may include the internet, fax, telephone, visa cards.

Electronic procurement according to Hawarii relates to the sale and purchase of supplies and services through the internet as well as other information and networking systems such as Electronic Data Interchange and Enterprise Resource Planning (**Encyclopedia**)

The challenge faced in integrating electronic procurement in operations so as to boost its effectiveness is hindered by low levels of technology in organizations and a small capital base on the side of suppliers.

Emerging technologies, such as the newly commercialized internet and its hypertext-based multimedia-supporting spin-off world wide, are raising high hopes of finally changing the picture of costly, time-consuming, and inefficient procurement processes by enabling major improvement in terms of lower administration overhead, better service quality, timely location and receipt of products, and increased flexibility. With most organizations spending at least one third overall budgets to purchase goods and services, procurement holds significant business value. (**Killen and Kamauff, 1995**)

Internet based catalogues allow buying organizations to browse, search, and place orders on line, they combine and extend many features of existing channels, such as the rich content of printed catalogues, the convenience and intimacy of on line shopping, and the sophisticated searching capability of CD-ROM catalogs. They also let suppliers provide

different “faces” to different buyers, and allow all parties to immediately track orders electronically (**Mac Duffie and Helper, 1997; Perlman, 1990**)

Internet based Electronic Data Interchange links can be less costly than the traditional leased lines and value added services regarding network access and data transmissions as a result, the break-even point in terms of transaction volume becomes lower, especially favoring smaller organizations (**Gebaeur, 1996**)

A growing number of internet based online auctions and bidding systems support the negotiations phase by providing a simple negotiation mechanism confined to price alone (**Hartman, 1997, Wilder, 1997**)

Their success is a testimony to the ease with which the internet connects to a large number of dispersed users.

Electronic procurement helps to improve the efficiency of the purchasing process and decreases the costs involved in traditional purchasing. Most of the paper work is eliminated, thereby cutting the cost and time required reaping benefits often to the tune of million dollars. Studies indicate that a firm can enjoy returns that may measure over 300% of the initial investment in just 3 years. The increasing number of success stories point to the growing recognition of Electronic Procurement advantages. This indicates an increased optimism towards automation in spite of the slowing down of global economy. Some companies have adopted automation at all stages of the supply process to maximize Electronic Procurement benefits. (**Seth miller**)

According to **Aberdeen Group**: “The procurement benchmark Report” internet based procurement has been quietly delivering measurable value to enterprises in the form of reduced material and operating costs. The chief finding of Aberdeen’s 2004 procurement benchmark Report is that despite the initial hype and resulting aftermath, E-procurement really works; respondents report measurable improvements in costs, productivity and spend under management.

One reason there is so much confusion surrounding the Electronic procurement market place today is that the press so often lumps all procurement into a single group as if all purchasing techniques and all commodity groups require the same systems and same approach. This is not the case and there are several key distinctions that should be made when considering your company’s Electronic Procurement strategy **(Dale Neef)**

## **1.2 STATEMENT OF THE PROBLEM**

Most organizations have been relying on paper work to carryout purchasing and related activities.

Organizations are feeling the pain of depending on paper and people intensive processes. Almost two thirds of the respondents to pay stream advisors annual financial Automation survey **(2000)** state that an over reliance on paper and people based processes is the biggest pain point they face in their financial operations.

The traditional manual method of procurement has been subjected to many setbacks, increased cycle time persistent interruptions and breakdown in operations and use of

multiple channels and processes has made both internal and external communication rather confusing.

Organizations thus because of increased cost competition are picking much interest in electronic procurement though it is still facing setbacks because of low levels of technology advancement.

It's against this background that the researcher therefore intends to find out Electronic Procurement on the organizations operations effectiveness.

#### **1.4 General Objective**

To analyze Electronic Procurement on operations effectiveness in an organization particularly at Total Uganda.

##### **1.4.1 Specific Objectives**

To identify and analyze the different forms of Electronic procurement used in organizations.

To find out how E- Procurement improves organization's performance

To analyze the factors that hinder adoption and implementation of Electronic procurement in an organization.

##### **1.4.2 Research Questions**

What are the different forms of Electronic Procurement used in an organization?

How does Electronic Procurement improve organization's performance?

What are the factors that hinder adoption and implementation of Electronic Procurement in an organization?

## **1.5 Scope of the Study**

The study scope covered the following areas.

### **1.5.1 Subject Scope**

The researcher mainly focused on application of Electronic Procurement on operations effectiveness with emphasis on cost reduction at Total Uganda.

### **1.5.2 Geographical scope**

The study was designed to cover in particular application of Electronic Procurement on operations effectiveness at Total Uganda at its Headquarters, 7th Street Industrial area, Kampala.

### **1.5.3 Time scope**

The study was carried out for two months from January to February (2010).

## **1.6 Significance of the study**

The results of the research are beneficial to the following categories of people;

The study will help staff and management of TOTAL to understand how they can efficiently utilize electronic procurement to cut on their operational costs.

The study will help other researchers who want to further their researches on the same topic.

The research results will be useful to other organizations facing problems dealing with Electronic Procurement.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### INTRODUCTION

In this chapter, the theory for the study is presented. the researcher shall therefore make a review of the available literature on the concept of Electronic Procurement.

The literature review was obtained from other researchers work, academicians work, journals, textbook, newspapers and magazines. It looks at the concept of electronic procurement, its definition and how it impacts on operations effectiveness..

#### 2.1 Definition of Electronic Procurement.

A number of definitions have been advanced on electronic procurement, though all share something in common.

Electronic procurement according to Hawarii relates to the sale and purchase of supplies and services through the internet as well as other information and networking systems such as Electronic Data Interchange and Enterprise Resource Planning (Encyclopedia)

E-procurement is using the internet to operate transactional aspects of requisitioning, authorizing, ordering, receiving and payment process for the required services and products (Lysons and Farrington, 2006)

Electronic procurement refers to the process of buying and selling goods and services in a digital environment by means of soft ware applications that are web or internet based (CIPS)



## **2.2 Forms of Electronic Procurement**

### **2.2.1 E-Sourcing**

This refers the process of identifying suppliers using the internet.

It uses tools used in organisation to identify and select new suppliers which include Electronic Request for Quotation (ERFQ), Electronic Request for Information (ERFI), and Electronic Request for Proposal (ERFP)

Electronic sourcing assists in the specification and selection process. They enable process efficiency and reduced time scales for purchasing to the mutual benefit of buyer and suppliers.

### **2.2.2 E-tendering**

A tender document is an invitation by the procuring entity to providers for consideration of an opportunity to supply or offer goods and services required by the procuring entity.

This is a process of sending requests and receiving feedbacks from suppliers using internet technology.

Electronic- Tendering smoothens a large part of the tactical purchasing process (Van Weele, 1998).it involves determination and selection of suppliers who will submit their bids to the procuring entity.

Electronic Tendering system must be capable of handling the full life cycle of the tendering process for both buyer and supplier, from initial notification of the requirement, expression of interest (EOI), to issue and receipt of tenders to evaluation. All transactions between the buyer and supplier to do with purchases can be managed electronically right up to the acceptance or rejection notification.

## **2.2.4 E-Auction**

These are web based on line events that enable efficient, open and transparent bidding between pre-qualified suppliers competing either on the lowest price or most economically advantageous trade as part of a full tendering process. There are very many products which are sold through auctions especially Agriculture products.

Auction may take different forms;

### **2.2.4.1 Open request for information (RFI)**

This basically emphasizes pre qualification of suppliers, the buyer is interested in assessing the capability of the supplier or to qualify him before actual auction.

Potential suppliers are requested to qualify before actual auction. The buyer wants to establish whether suppliers are in position of meeting his requirements before hand. He may need some background information, such as financial status, performance, and expertise. He may want some initial offer from the supplier in order to test his competitiveness.

### **2.2.4.2 E- Reverse auction**

These are processes of “selling in reverse” the buyer and the seller reverse positions as it’s the buyer who drives the event. With the use of the internet the process of reverse auction is made simple.

The buyer sets an initial price which suppliers need to meet. Also visible is the target price, which the buyer wants to arrive at. If the price level is not reached the contract will not be awarded. During the auction suppliers may be able to follow the auction bids made. However, the buyer may decide to reveal the actual prices that are provided by the supplier. In these cases the supplier may only see his ranking on the screen.

### **2.2.4.3 Forward auction**

The seller sets the price. Several buyers need to provide bids to the auctioneers. In this case, a target sales price may have been indicated. The seller may decide on the same parameters as in the case of reverse auction.

This type of auction is appropriate when solving salvage or old equipment and inventory (e-bay)

### **2.2.5 Electronic Data interchange**

Electronic Data Interchange is defined as “the technique based on agreed standards, which facilitates business transactions in standardized electronic form in an automated manner directly from a computer application in one organization to an application in another.

Internet based Electronic Data Interchange links can be less costly than the traditional leased lines and value added services regarding network access and data transmissions as a result, the break-even point in terms of transaction volume becomes lower, especially favoring smaller organizations (Gebaeur, 1996)

### **2.2.5 E-ordering and e-web based Enterprise Resource Planning (ERP)**

Electronic-ordering was introduced in the late 90s by pioneer companies, which was the first electronic procurement form to emerge. The difference between the two terms is that Electronic ordering is used for non-product Related goods and services where as Electronic web based Enterprise Resource Planning relates to product related goods and services.

Electronic ordering consists of requisitioning, approving, ordering, monitoring and receiving of indirect goods and services. Employees initiate it by using an ordering catalog system that contains;

- Selected suppliers.
- Selected goods and services

- Contract prices
- Indirect goods and services

### **2.2.6 Electronic Marketplaces and Electronic Procurement.**

An electronic marketplace is defined as a place on the internet where actual transactions can take place between the buyers and sellers, it can also be defined as electronic exchange where firms register as sellers or buyers to communicate and conduct business over internet. Large corporations such as customers, pharmaceuticals, air travel and retail companies may establish their own exchanges in order to manage better their supply chains.

### **2.2.7 Electronic Mail**

Organizations now use e-mail to communicate both internally and externally. Emails are advantageous because they eliminate the need to speak directly to a person while still communicating the necessary message. This is of benefit because you may wish to communicate which may not be available at the moment when you need to pass the message in person. Thus emails represent a convenient and time efficient way of communicating.

In some cases e-mails may be used to replace a communication that may be made on paper and sent through the post. In such cases e-mail reduces the cost of paper and postage.

### **2.2.8 Fax**

Many organizations already use fax to communicate with their suppliers. For example they fax through their orders to suppliers. For external communication like email, fax reduces the cost incurred in having to post paper based documents. Fax may also be a

suitable alternative in case the supplier doesn't have an email address. E fax (a combination of fax and email) not only reduces the postage cost, but also the paper cost since you don't need to print a piece of paper to be fed into the fax machine instead it's sent directly from your computer screen.

### **2.2.9 Intranet**

An organization Intranet is browser-based information only accessible to those inside your company with a password. Using an Intranet effectively will result in no member of staff having an excuse for not knowing current rules or which contracted supplier may be using. Guidance and advice can be posted home.

Your Intranet can really reduce the amount of time and resources spent on classroom based training and communication and begin to act as a central resource for all staff involved in procurement where best practice and experience can be shared.

### **2.2.10 Extranet**

Many organizations have extended their Intranet beyond their boundaries to include customers, suppliers, government, and general public. This is mostly seen in multinational companies. Extranet works almost like an internet because there is establishment of a web site where people can visit any time for information.

Companies are now being expected to provide services online using transaction websites.

Having a website with defined space helps the suppliers to find out relevant information and therefore makes it easier for them to trade with your company.

### **2.2.11 Spread sheets and /or simple databases**

These tools are extremely flexible and many elements of e procurement can be achieved relatively simply by using them. Some of the suggestions of how you could achieve the

elements of Electronic Procurement and improve your Electronic Procurement function using simple tools include; Tender response form, Supplier database (contracted suppliers, SME's, suppliers for RFQ), purchase order log, A contracts database and contract monitoring tools.(Source; **Simple e procurement, National e procurement project, UK,2004**)

### **2.2.12 Electronic Collaboration**

This provides internet tools for setting up customized online integration between the buying company and one or a few key suppliers or between disparate internal systems.

## **2.3 Electronic procurement adoption strategies**

Some firms have discovered that many of their transactions still take place on paper and therefore run into problems ranging from contest management to supplier participation in their systems. Most companies who desire to make the switch fall into camps. There are two basic adoption strategies.

### **2.3.1 Step by step adoption strategy**

This one is mainly for slow adopters. They implement one part of their system at a time and slowly bring trading partners on board.

### **2.3.2 Total replacement strategy**

Here adopters build a totally parallel system, test it, and then switch over to it when it works. However this strategy should only be used when you have time and resources. An immediate return on investment should not be expected. There is usually some pain and some mistakes are discovered but these are absorbed and the business continues.

## **2.4 Critical Success Factors for E-Procurement Investment**

- Strategic organizational alignment which enhances inter-organizational co-ordination resulting in transaction and cost savings and competitive sourcing opportunities for the buyer firm. ( **Subramanian and Shaw,2002**)
- Clear definition of the e-procurement strategy.
- Re-engineering of the procurement process.
- External collaboration by involving key stakeholders.
- Focusing mainly on product segments.
- Clear definition of measurement system and expectation of management of users and stakeholders. (**Rajkumar 2001**)

## **2.5 Relevance of E-Procurement.**

- E procurement leads to an increase in the number of products offered by suppliers. (**Muffato and Payaro, 2004**)
- Reduction of inventory levels, that is, knowing numbers, bid prices and contact points can help businesses close a deal while other suppliers are struggling to gather their relevant data. (**Subramaniam and Shaw, 2002**).
- Reduction in prices of goods and services as there is paperless processing of orders, receipts and invoices. (**Davila et al, 2003**).
- It also increases internal customer service levels achieved as a result of cost reduction process compliance and customer satisfaction.(**Croom and Johnston 2003**)
- E- procurement brings about shorter requisition and processing time, faster processing and delivery as well as minimizing errors(**Davila et al**)

- Improved response time, flow of information and employee accountability.  
(Oslobekov et al)
- Electronic procurement enables companies to decentralize operational procurement processes and centralize strategic procurement processes as a result of higher supply chain transparency provided by e-procurement systems (Aberdeen Group 2004)

## 2.6 Apeak into the Future

Learning from the impact that the deployment of innovative systems and applications already have had on some organizations , we envision even more radical changes to business practices and organizations all structures over the next years as electronic commerce solutions become more mature and more wide spread. As a general development we see the role changing between end-users and the procurement function consolidate, that is to say new procurement systems will continue to either automate purchasing operation or help push them down to the end user, allowing the purchasing department to concentrate more on strategic and managerial tasks. Automated negotiations and electronic auctions are other areas where big gains are yet to be reaped.

(Zenz and Thompson)

- Starting out with standardized goods especially MRO supplies electronic auctions might start to play an important role in many more market spaces than today. involving suppliers and bidders world wide, they will refit in real time so a prospective processor would dial in and see the spot price of paper, chairs , or janitorial suppliers and determine whether to purchase now or to wait awhile for the price to become more favorable as more sophisticated description methods evolve,



next-generation auctions will also feature more complex items and allow matching of supplier and demand not only with respect to price but also features such as service quality or speed of delivery(Muffato and Payaro, 2004)

## CHAPTER THREE

### 3.0 METHODOLOGY

#### **Introduction.**

This chapter deals with the practical part of the study. It shows the methods, techniques, procedures and designs that were used in carrying out research. It specifies the research design used, data sources, measurement techniques and methods, instruments used for data collection, criteria for sample selection, data processing and analysis.

This chapter concludes with limitations of the study and their solutions.

#### **3.1 Research design.**

The researcher used both quantitative and qualitative methods and it involved analysis and description of data collected to identify the relationship, it was cross sectional, it did not take too much time.

#### **3.2 Geographical area of study**

The study was carried out at TOTAL Headquarters, located on 7<sup>th</sup> street Industrial area. TOTAL was chosen because it embraces electronic procurement in its purchasing transactions.

#### **3.3 Target population**

The study shall involve officials engaged in procurement that is the population will include procurement manager, staff involved in procurement, user department and stores staff since they are exposed to electronic procurement transactions.

### 3.4 Sample size and sample selection

The selected sample frame was used to select the target population/respondents. The sample frame consisted of 30 respondents were selected to give responses to the designed questionnaires, this was administered on the departments of interest.

### 3.5 Sampling frame

Respondents	Number	Percentage
Finance Department	3	10%
Stores staff	10	33%
User department	2	7%
Procurement staff	15	50%
<b>Total</b>	<b>30</b>	<b>100%</b>

### 3.6 Data Sources

The main sources were;

- Primary data was got from respondents by use of self-administered questionnaires and interviews.
- Secondary data was got from related literature from internal and external sources like purchasing records, journals, published textbooks, newspapers, from Total Uganda.

### 3.7 Data collection methods.

The researcher used two instruments in collection of data.

- The researcher used both open and closed-ended self-administered questionnaires, which were given to the respondents.
- The researcher interviewed respondents to clarify on unclear issues.

#### 3.7.1 Questionnaires

These constituted short questions enough to meet the research objectives; these were both closed and open ended.

### **3.7.2 Interviews**

This entails getting information from respondents by word of mouth, this method facilitated getting first hand information at a low cost in a short time and ability to clarify on unclear issues.

### **3.8 Data quality control.**

The researcher made a pre- test of the questionnaires and their results were tested before administering them to the sample population. They were tested on procurement year three students

### **3.9 Measurement of variables.**

The study adopted electronic procurement as the independent variable which refers to use of the internet, fax, phones and any other form of information technology to make procurement easier and less costly on operations effectiveness as the dependent variable

### **3.10 Data Analysis and Presentation.**

The data was collected, assembled and analyzed to ensure accuracy completeness and consistence, appropriate analytical methods were applied and presented in the most suitable format such as pie-charts, tables and other forms so as to derive out meaning.

### **3.11 Control of Extraneous Variables**

These are external factors that influenced the dependent variable alongside the independent, however most of them were difficult to eliminate and thus the researcher held them constant.

### **3.12 Limitations/ problems met in the study**

The researcher was faced with resource constraints of time and funds.

There was a lot of bureaucracy that existed since one had to pass through many stages to get permission to gather data from the organization

Respondent's were also unwilling to answer the questionnaires that is why out of 30 questionnaires sent only 28 were returned back.

### **3.13 SOLUTIONS TO THE ANTICIPATED PROBLEMS:**

The researcher solicited for funds from friends and relatives so as to solve the problem of financial constraints.

Since it was the organization's policy that one passes through many steps to access data, the problem of bureaucracy was hard to eliminate, the researcher had to be patient and followed the procedures given so as to get the data needed.

The problem of lack of time to answer the questionnaires was solved by informing the respondents early enough so as to fix some time for answering the questionnaires in their busy schedules

## CHAPTER FOUR

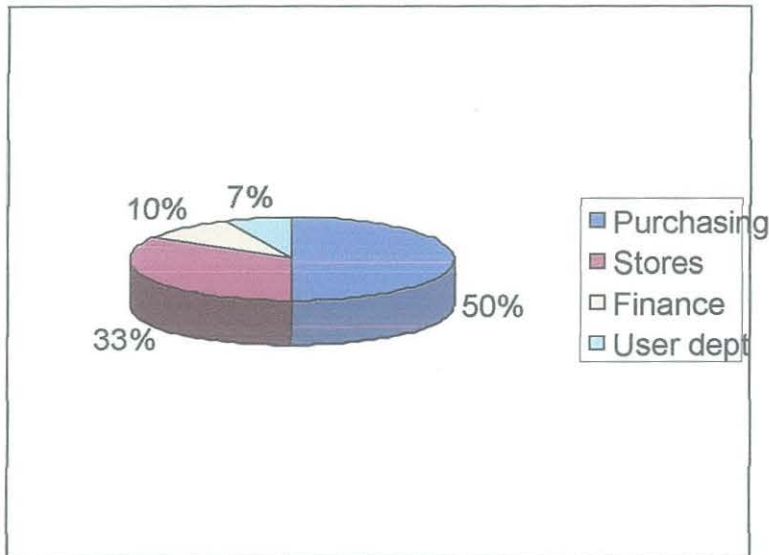
### 4.0 PRESENTATION, INTERPRETATION AND ANALYSIS OF THE FINDINGS

#### INTRODUCTION

This chapter presents interpretation and analysis of the major findings of the study using tables, charts and graphs. The data is presented according to the objectives and their research questions, conclusions were based on research questions that guided the study. The findings were got from the staff of the purchasing, finance, and stores departments of TOTAL Uganda.

The researcher used a sample of 30 respondents from the departments of purchasing, stores, finance and user department at TOTAL Uganda. The researcher issued thirty 30 questionnaires and out of the thirty questionnaires given out, twenty eight questionnaires were received back. This indicates a positive response rate of 93.3%. 10 questionnaires were given out to the stores department, 15 questionnaires were given to the purchasing department, 3 questionnaires to finance department and 2 to user department. Alongside questionnaires, there were personal interviews with respondents especially to clarify on unclear issues.

**Diagram one: Composition of respondents**



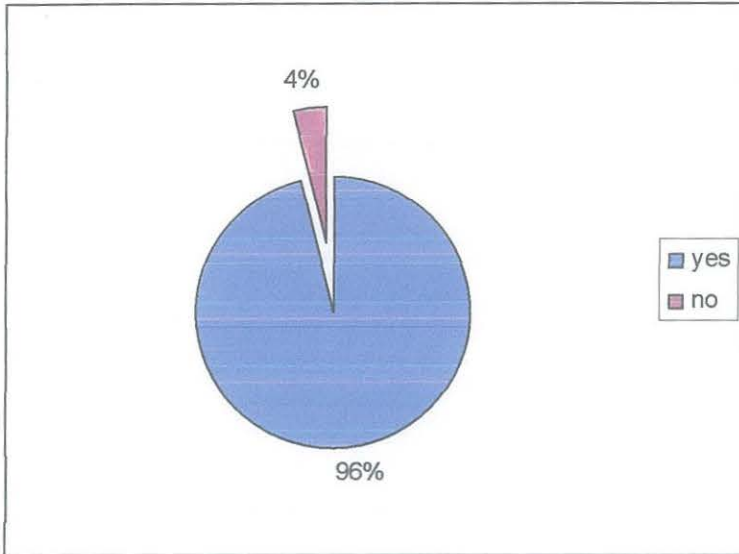
**Source: Primary Data**

From the above pie chart, it shows that most respondents were from purchasing department (50%), 33.3% of the respondents were from the stores department, 10% of the respondents were from the finance department and 7% were the major business customers who use electronic purchasing. The major focus of the researcher was therefore on the purchasing department.

#### **4.1 Whether the respondents knew the term Electronic Procurement**

Out of the twenty eight (28) questionnaires that were got back, twenty seven (27) of the respondents said they knew the concept of *Electronic Procurement*. This represented a percentage rate of 96% .only one respondent (4%) indicated that he did not understand the concept of *Electronic Procurement*.

**Diagram two: showing whether respondents understand the concept of Electronic Procurement.**



**Source: Primary Data**

From the above diagram, 96% of the respondents said they understood the concept of Electronic Procurement, this shows how reliable of data is because of a higher positive response rate though 4% said that they did not understand the concept of Electronic Procurement, therefore the 94% confirmed to the researcher that the respondents knew the concept of Electronic Procurement and thus were in a better sample for the research.

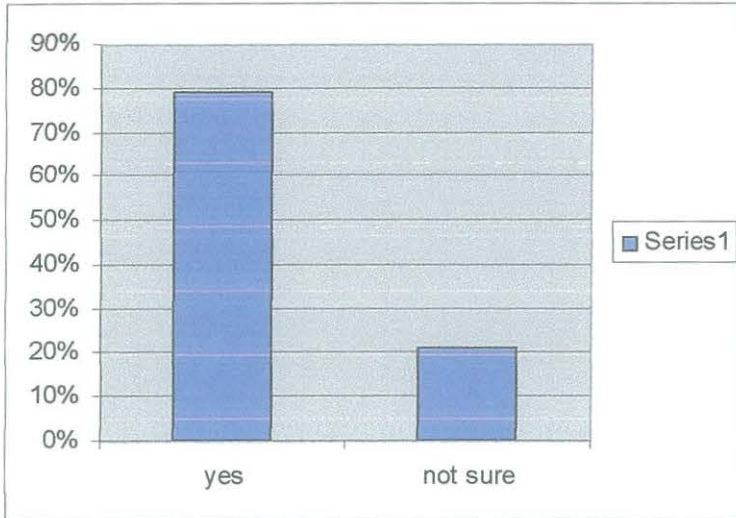
Further findings on whether the organization depends entirely on Electronic Procurement tools in purchasing revealed that that the organization uses manual purchasing alongside Electronic Procurement (24), this corresponds with 86%. Four respondents(4) agreed that the organization was depending entirely on Electronic Procurement, this represented 14%.The higher negative response rate signifies that Electronic Procurement was still lowly used.



#### 4.2 Whether Electronic Procurement tools cover the whole organization.

Diagram three, showing whether the organization is covered entirely by Electronic Procurement Tools.

##### Is Your Organization Covered Entirely by Electronic Procurement Tools?

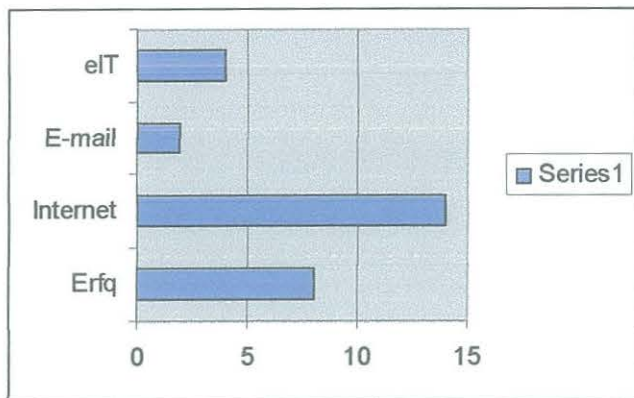


**Source: Primary Data**

Out of the twenty eight respondents, twenty two (22) of the respondents said that the organization was entirely covered by Electronic Procurement tools representing 79%.the remaining 21% had no idea. The data got revealed that the organization was covered by electronic Procurement tools to facilitate communication through out the organization as a means of guarding against stock outs and communication with suppliers. This information was got through interviewing the procurement staff. The positive response rate signifies that Electronic Procurement is well facilitated through out the whole organization.

### 4.3 Forms of Electronic Procurement used in the organization.

**Diagram 4: showing which forms of electronic Procurement the organization uses.**



**Source: Primary Data**

From the graph above, fourteen (14) of the respondents said that the Internet is used in procurement activities especially when giving feedbacks to suppliers. Eight (8) of the respondents said that the organization uses the Electronic Request for Quotation(Erfq) in its electronic Procurement activities, four (4) respondents respectively indicated that the organization uses the electronic Invitation to Tender(EIT), two (2) respondents said they used E-mail.

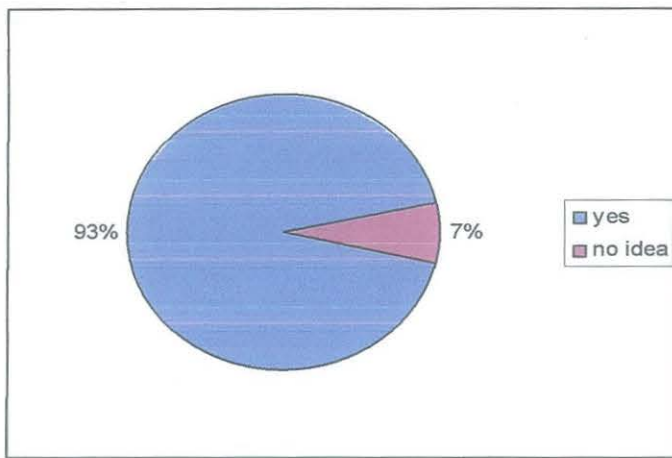
Therefore using the highest figure of 14, shows that internet is commonly used in procurement activities and E-mail as the least used form of electronic procurement.

### 4.4 Whether Electronic Procurement facilitates customer satisfaction at TOTAL Uganda.

From the returned questionnaires,26 (93%) of the respondents agreed that Electronic Procurement facilitates customer satisfaction, the respondents revealed that this was because Electronic Procurement facilitates a shorter lead time (that is the time taken when an order is placed and the time of actual delivery).

It was also established that Electronic Procurement facilitates, on time dispute resolution, timely delivery and timely order response. 2 respondents corresponding with 7% had no idea whether Electronic Procurement facilitates customer satisfaction.

**Diagram four: showing whether Electronic Procurement facilitates customer satisfaction**



**Source: Primary Data**

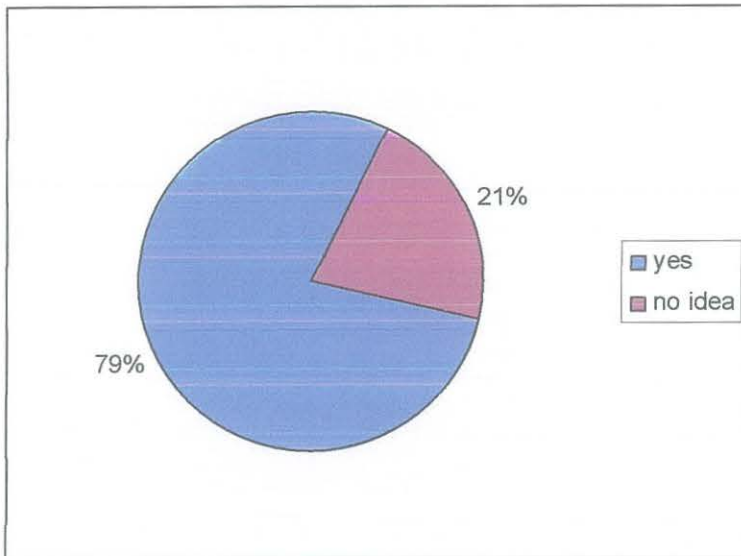
The diagram above indicates that a higher positive response of 93% said that Electronic Procurement facilitates customer satisfaction this leads to an improvement on the performance of the organization as compared to the minority 7% who had no idea about whether Electronic Procurement facilitates customer satisfaction.

#### **4.5 Whether Information Technology has facilitated cost reduction.**

From the returned questionnaires, 22 (79%) of the respondents said that Electronic Procurement has led to the reduction of costs at TOTAL Uganda while only 6 respondents had no idea of whether electronic procurement leads to a reduction in costs.

**Diagram five: showing whether Electronic Procurement facilitates cost reduction**

**Do you think the use of Electronic Procurement facilitates cost reduction?**



**Source: Primary Data**

From the above pie chart, 79% percent of the respondents said that electronic procurement facilitates cost reduction, respondents said that cost reduction was facilitated through access to many suppliers which exposes the buyer to many products, shorter lead time because of faster communication with suppliers, easy market research and improved relationship with suppliers because of faster error detection, communication and minimal disputes

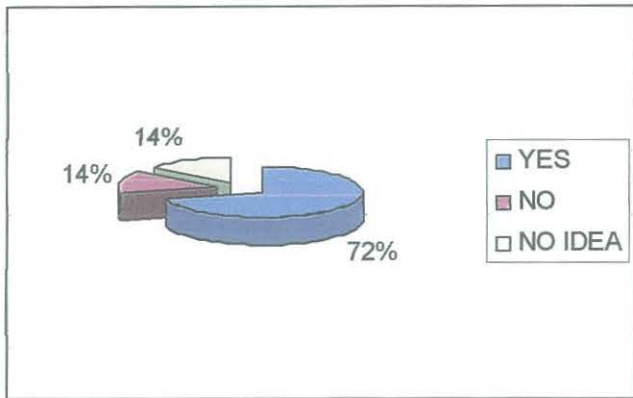
#### **4.6 Findings whether the use of computers has improved organization's performance**

Twenty (20) of the respondents agreed that the use of computers facilitates organization's performance, this corresponds with 72%, four (4) respondents said that the use of

computers does not lead to an improvement in organization's performance, four (4) respondents had no idea.

**Diagram six: showing whether the use of computers facilitates organization's performance.**

**Does Electronic Procurement facilitate improvement of organization's performance?**



**Source: primary data**

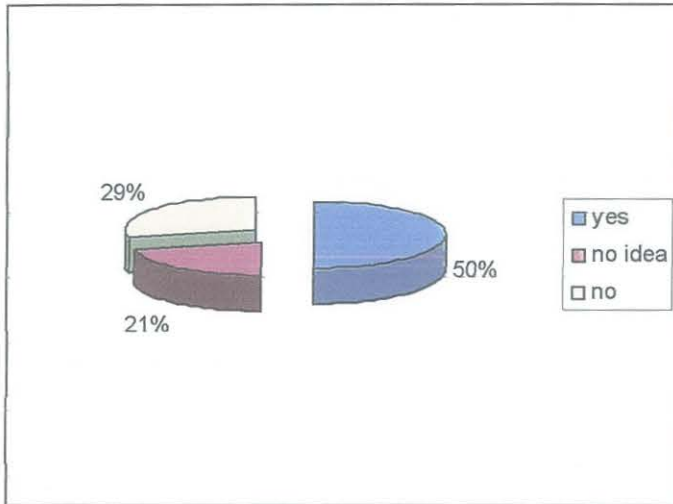
The graph above shows that Electronic Procurement facilitates organization's performance because of the high positive response of 72%, the respondents revealed that this was possible because Electronic Procurement facilitates faster data transfer and processing, interconnections between departments, motivation of staff and that it improves timeliness in processes. Therefore 72% is enough for the researcher to say that Electronic Procurement facilitates improvement in organization's performance.

#### **4.7 Findings on whether Electronic Procurement helps in meeting the objectives of the purchasing department and those of the organization**

From the responses, fourteen (14) representing 50% of the respondents agreed that Electronic Procurement facilitates meeting the objectives of the purchasing department

and the organization at large, eight (29%) respondents did not agree whereas six (21%) of the respondents had no idea.

**Diagram seven: showing whether Electronic Procurement facilitates meeting the objectives of both the purchasing department and the organization.**



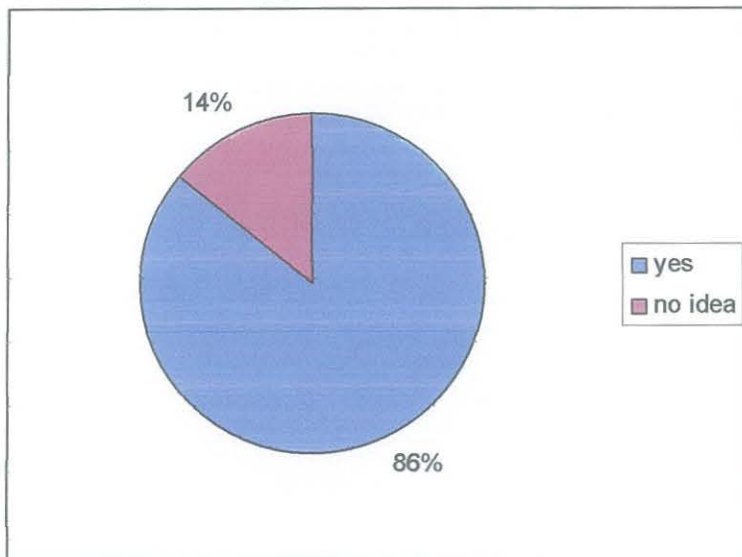
**Source: Primary Data**

From the analysis of the above graph, 50 percent of the respondents agreed that Electronic Procurement indeed helps in meeting the objectives of the purchasing department and those of the organization at large. The 50% is enough for the researcher to say that Electronic Procurement helps in meeting the objectives of the organization as compared to the minority 21% who had no idea

#### 4.8 Whether Electronic Procurement improves on the organization's relationship with suppliers.

From the responses, twenty-two (22) of the respondents agreed that Electronic Procurement has improved relations between the organization and their suppliers. Only four (4) of the respondents had no idea

**Diagram eight: whether Electronic Procurement improves organization's relationship with suppliers.**



**Source: Primary Data**

From the analysis of the above diagram, 86 percent of the respondents agreed that Electronic Procurement has greatly improved organization's relationship with suppliers. The respondents revealed that Electronic Procurement improves organization's relationship with suppliers by facilitating faster data transfer, minimizing complaints, faster information flow which leads to proper communication with suppliers.

Therefore, the 86 percent positive response rate strongly confirmed to the researcher that Electronic Procurement improves organization's relationship with suppliers as compared to the minority 14% who had no idea.

**4.9 Whether Electronic Procurement facilitates purchasing of products or materials of quality at the right time, from the right source and right price**

All the 28 questionnaires which were brought back agreed that Electronic Procurement facilitated purchasing products of quality at the right time, from the right source and right price.

**Table one showing whether Electronic Procurement facilitates purchasing products of quality, from the right source, at the right price and time.**

Response	Frequency	percentage
yes	28	100%
No	-	-
No idea	-	-
<b>Total</b>	<b>28</b>	<b>100%</b>

**Source: Primary Data**

From the analysis of the graph, 100 percent respondents agreed that the use of Electronic Procurement facilitates purchasing products of quality, from the right source, right price and time.

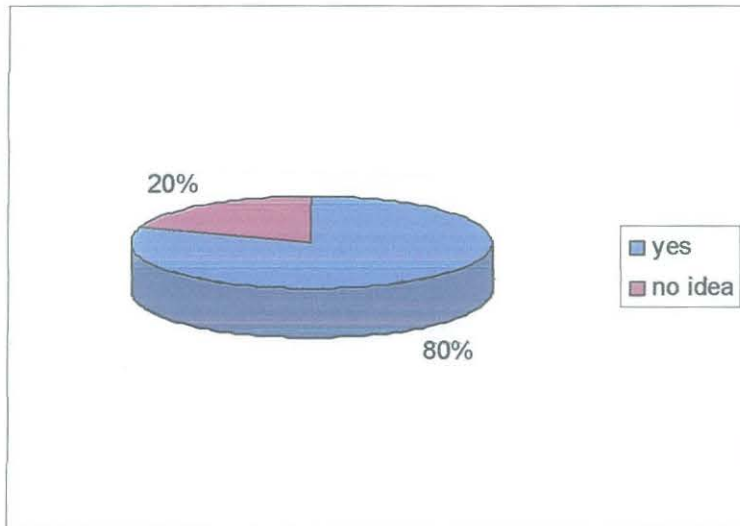
The respondents said that this was due to the ability of Electronic Procurement to facilitate the organization to interface with many suppliers thus access to many products, the data got also revealed that Electronic Procurement facilitates faster communication within the organization; this helps to guard against stock outs thus guarding against emergency purchasing. Therefore, the 100% positive response rate was convincing enough for the researcher to acknowledge that Electronic Procurement facilitates purchasing products of quality, from the right source, at the right time and price.



Findings on whether the use of Electronic Procurement is of advantage as compared to manual method of purchasing, the data got revealed that out of 28 questionnaires which were returned, 26 respondents agreed that Electronic Procurement was viable to use as compared to manual purchasing. The remaining 2 respondents were not sure about it. The majority response of 93% is significant enough for the researcher to conclude that Electronic Procurement if used in an organization is beneficial as compared to manual type of purchasing.

#### 4.10 Whether Electronic Procurement is difficult to adopt in an organization.

Diagram nine: Is Electronic Procurement difficult to adopt in an organization?



Source: Primary Data

From the diagram above, the highest number of respondents (80%) said that Electronic Procurement was difficult to adopt in an organisation, the respondents revealed that this was so because of the challenges associated with Electronic Procurement like, high costs of maintenance, high installation costs and poor information technology coverage. There

was a minority of twenty percent (20%) who had no idea, it was thus convincing enough for the researcher to deduce that Electronic Procurement is difficult to bring in an organization.

The data got further revealed that Electronic purchasing was difficult to use in the organization because of low levels of technology at the supplier side, 90% respondents agreed that suppliers were not Electronic Procurement enabled, only 10% respondents said that suppliers had in place Electronic Procurement Systems and skills.

Alongside all these challenges however, 75% of the respondents said that the organization had in place skilled technical personnel to handle all transactions related to Electronic Procurement.

## CHAPTER FIVE

### 5.0 DISCUSSION, SUMMARY, CONCLUSION AND RECOMMENDATION

#### Introduction

. This chapter presents the discussion of findings from the field study, conclusions and recommendations advanced based on the findings from the study in an attempt to find out Electronic Procurement on Operation's effectiveness.

#### 5.1 Discussion of findings

The researcher found out that Electronic Procurement had an impact on the operations effectiveness of TOTAL Uganda, all respondents understood and appreciated the contributions of Electronic Procurement in the organization. It was found out that Electronic Procurement was used; the information got revealed that Electronic Procurement was used in different forms, Electronic Invitation to Tender, E-mail, with internet and Electronic Request for Quotation having the highest response rate of 50% and 29% respectively.

The researcher found out that Electronic Procurement was beneficial to both the organization and the customers, it was found out that Electronic Procurement facilitates customer satisfaction through timely delivery, on time dispute resolution and through a shorter lead time taking the highest response rate, the researcher found out that Electronic Procurement facilitates cost reduction in the purchasing transactions of the organization through access to many suppliers, easy market research, speedy transactions and improved relations with customers, it was also found out that Electronic Procurement facilitates purchasing products of quality, from the right source, at the right time and

right price, it is from these advantages therefore that the researcher recommends the use of Electronic Procurement both with in the organization, its suppliers and customers, this is in line with **Muffato and Payaro (2004), Lysons (2006) and Aberdeen group 2004**. It was found out that Electronic Procurement is advantageous over paper based procurement because of the many advantages that accrue from use of Electronic Procurement like interface with many suppliers, facilitating audit and minimizing complaints. This is in agreement with **Osломobekov et al.**

The data got in regard to challenges faced by Electronic Procurement, pointed out that the organization faced challenges related to high costs of installation, high costs of maintenance, poor information technology coverage and unstable internet network, further more the data got revealed that the organization was finding it hard to use Electronic Procurement because of the low levels of information Technology within the industry and at the supplier side, this is in agreement with **Dale Neef**.

It was also found out that the organisation found it hard to keep on upgrading its Electronic Procurement systems.

It is noted from the data collected that all these challenges are due to low capital base of the organisation, technological incapacitated suppliers and thus cannot survive if it meets these costs however much there are long-term established benefits that accrue fro use of Electronic Procurement.

## **5.2 Summary**

The study was carried out to assess Electronic Procurement on the operations effectiveness of an organization with specific reference to TOTAL Uganda. The researcher focused on the study objectives in order to make conclusions.

Conclusions were based on findings in chapter four guided by the literature review in chapter two

The researcher found out that organizations use different forms of Electronic Procurement, internet and Electronic Request for Quotation being the most widely used, Electronic Procurement is beneficial to both the organization and the industry at large thus much efforts should be put to this strategic activity, however there are many set backs that affect the success of Electronic Procurement which organizations need to address with keen interest.

## **5.3 Conclusion.**

Following the benefits that accrue from use of Electronic Procurement, organizations should integrate this strategic activity in their systems in order to make their procurement function and the organization at large to realize maximum performance and meet their objectives.

Organisations should however first find out factors that influence the success of Electronic Procurement, organisations should first evaluate key players like suppliers and customers who directly influence the performance of an organisation.

It is pertinent for organizations to use Electronic Procurement because if used well it can make organizations competitive enough to perform higher above the average.

Despite the high costs involved, Electronic Procurement if well used brings a lot of benefits enough to influence costs, performance and financial capacity of the organization.

It is against these facts therefore that organizations should integrate electronic Procurement systems in their purchasing activities

## **5.4 Recommendations**

### **5.4.1 To Management**

The management should first carry out a cost benefit analysis, to ascertain the costs involved against anticipated benefits, this is so because the success of Electronic Procurement is influenced by many factors.

Organizations should carryout awareness campaigns to their suppliers so as to bring suppliers on board because they can greatly influence the success of Electronic Procurement.

Organizations need also to learn from the companies, which have been using electronic Procurement so as to understand what Electronic Procurement entails.

Organizations should regularly carry out training to their staff about the benefits of Electronic Procurement and how to use it.

### **5.4.2 To other organizations.**

Organizations which are not yet Electronic Procurement enabled should bring this strategic system in place because if used it can bring success or failure of the organization if not brought on board.

Other organizations should first benchmark on other organizations who are already Electronic Procurement enabled to reap maximum benefits.

They should be always willing and eager to take on new systems as this may be a positive turning point in the organization.

### **5.5 Suggestions for further Research.**

The researcher recommends to other researchers to research on the effect of Electronic Procurement on buyer supplier relationship because it influences the performance of the procurement function and the organization at large.

The researcher also recommends other researchers to find out why most organizations are not using Electronic Procurement systems in their procurement activities.

The researcher recommends research on the impact of Electronic Procurement on Supply Chain Management.

## APPENDIX I

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## APPENDIX II



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OFFICE OF THE DEAN

SCHOOL OF BUSINESS AND MANAGEMENT

Date: 15<sup>th</sup>/01/2010

Our Ref: KIU/SBM/ADM/02/05/00-9

### TO WHOM IT MAY CONCERN


This is to certify that NUWAMANYA RICHARD. REG.NO: BSP/14021/62/DU, has been a bonafide student of Kampala International University under the School of Business and Management. He pursued a six semesters, three years programmed course in Bachelors of Supplies and Procurement.

He finished his course in December, he awaits for his last semester results.

While with us, he was a diligent, cooperative and hard working student with great potential for growth and development. Please render to him any necessary assistance and consideration.

Thank You,

Yours Faithfully,

  
**DR. ALFRED NUWAGABA**  
DEAN-SCHOOL OF BUSINESS AND MANAGEMENT

