

**THE IMPACT OF E-PROCUREMENT AND SERVICE DELIVERY**

**CASE STUDY: NTUNGAMO LOCAL GOVERNMENT**

**WESTERN UGANDA**

**BY**

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## DECLARATION

I **NABATA SAFURA** declare that this is my own original work and has never been presented to any institution for any award in bachelor of supplies and procurement management

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## APPROVAL

The student named above has been under my supervision at Kampala international university

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## **DEDICATION**

I would like to dedicate this research report to My father Mr. Micdad Mbaziira and my Mum Mrs Lubah Micdad. For their support both monetary, spiritually, and morally.

To my brothers Nagibu Kirunda ,Jarudi , Hababi and to my sisters Kudra and Mya.

To all relatives.

To my university supervisor for her tireless, technical, and academic guidance towards this research report formulation. It was not easy otherwise thank you very much Madam Oriodriyo Proscovia.

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## **ABSTRACT**

The study looked at the impact of E-procurement on service delivery at Ntungamo District local government . The study objectives were;

To examine factors influencing adoption of E-procurement at National Medical Stores.  
To determine different forms of E-procurement used at National Medical Stores. And  
To determine the relationship between E-procurement and service delivery.

A sample of 30 respondents were determined using Krejcie Morgan (1970). The findings of the study were the following according to respondents. The forms of e-procurement were e-ordering; web-based ERP; e-sourcing; e-tendering; e-reverse auctioning; and e-informing.

The factors influencing e-procurement adoption were Managerial Factors and e-Procurement Implementation, Environmental Factors and e-Procurement Implementation, Technical Factors and e-Procurement Implementation, Presence of legal support ,Supplier Capability Development, Development of experts on e-procurement, and Capital investment on technological infrastructure

The recommendations of the study were, The modernization of the e-procurement legislative framework. Develop e-suites aimed at standardizing information availability from the suppliers. Develop simplified, consistent, interoperable and secure technology systems to drive the e-procurement functions.

The paper recommends further research on the impact of other variables such as language barriers, experience curves, cultural factors and digital divides on e-procurement implementation.

the researcher came up with the following recommendations; national medical stores should optimize benefits of e- procurement by increasing the proportion of expenditure on e-procurement by widening the scope of supplier sourcing thereby justifying use of e-procurement, national medical stores need to increase the e-procurement capability in terms of IT expertise and IT infrastructure injecting regular upgrading of IT system and management of firm to expand the use of e-procurement by incorporating most of e-procurement processes as well as all e-procurement models. The researcher recommends that national medical stores to expand e-procurement models put in use by national medical stores in order to optimize the benefits of e-procurement.

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## **List of acronyms**

EP- Electronic procurement

MSC- Multimedia Super Corridor

NMS – national medical store

IT- information technology

ERP- enterprise resource planning

e-ordering- electronic

web-based ERP- web based enterprise resource planning

e-sourcing- electronic sourcing

e-tendering- electronic tendering

e-reverse auctioning- electronic reverse auctioning

e-informing- electronic informing

SPSS-statistical packages for social sciences

## DEFINITION OF KEY TERMS

**Procurement** is the acquisition of goods, services or works from an outside external source. It is favorable that the goods, services or works are appropriate and that they are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time, and location.

**E-Procurement** refers to automation of an organization's procurement processes using web-based applications. Unlike enterprise resource planning (ERP) systems that enable businesses to automate their internal processes, e-procurement enables widely dispersed buyers and suppliers to come together, interact, and execute purchase transactions directly over the Internet

**Service delivery** refers to intangible provision of needs from one place to another

**Impact** Is the ability to cause desirable and measurable actions and outcomes both positively and negatively

## CHAPTER ONE

### INTRODUCTION

#### **Introduction**

This chapter contained the background, purpose of the study, research objectives, research questions, scope of the study, and significance of the study

#### **1.1 Background to the study**

Globally Electronic procurement (EP) has become one of the most successful of electronic commerce applications in the world. It has been widely adopted by companies seeking better business processes and an improved bottom line. These advantages have not been lost on governments which also engage in extensive buying activities and are major customers for a wide range of goods and services. Electronic procurement (EP) can be a powerful tool in the government activity although this was not acknowledged as a major driver of its development. That is the important benefit of Electronic procurement (EP) to the Government Sector as a whole. Electronic procurement (EP) can reduce transaction costs, lead to a better decisions and get better value in the procurement output. Electronic procurement (EP) also known can assist small businesses through the reduction of red tape and providing access to small businesses to Government electronic market places.

In Africa, Electronic procurement (EP) (also known as *e-commerce*) was initially implemented at the Federal Government level in year 2000 as one of the projects under the Electronic Government Flagship of Multimedia Super Corridor (MSC). MSC will accelerate africa's entry into the information Age and realize the vision 2020. The MSC brings together, for the first time ever, an integrated environment with all the unique elements and attributes necessary to create the perfect global multimedia climate .The Electronic procurement (EP) system streamlines government activities and improves the quality of service it renders. By subscribing to the Electronic procurement (EP) system, suppliers will be able to participate in the procurement exercise by the government. Electronic procurement (EP) converts traditional manual procurement processes in the Government machinery to electronic

Procurement on the Internet. Electronic procurement (EP) is an end-to-end electronic procurement system that enables Government Agencies around the country to procure products and services electronically from both local and international suppliers. It uses Internet technologies to bring Government Agencies in the country and Suppliers around the world together into a virtual trading environment. Its comprehensive and extensive functionality also creates an interactive and secure trading environment. Upon final implementation of the Electronic procurement (EP)

system, full services will be available to all four types of procurement that is Central Contract, Direct Purchase, Quotation and Tender (Zaharah, 2007).

In Uganda E- Procurement is part of a broader concept called information technology which has provided organizations with vast opportunities to operate beyond their traditional physical boundaries, McGregor and Vrazalic, (2005). In particular, e-Procurement has increased professionalism in the skills of procurement staff by encouraging greater use of information technology systems which has provided firms with more efficient solutions to drive significant value into their business Neef,(2001). Indeed in 2003, one of the major advocates of internet based business strategies, Michael Porter stressed that if firms' intent is to remain competitive, they should let their business modes adopt and accommodate more effective and efficient internet based business approaches. He further states that the internet will be only become a powerful source of competitive advantage if it is integrated in a firm's overall strategies.

Such adoption has however, produced both positive and negative effects for firms in relation to commercial relationships and e-procurement deployment Vrazalic, (2005). The knock-on effect is that e-procurement has led to a situation where firms have felt obliged to focus their attention on streamlining inter and intra organization procurement functions. The downside is that for those firms that have chosen to ignore the positive impact e-procurement can provide, or at least, have only half hazardedly embraced the technology, much unnecessary and inefficient duplication of work efforts remains Gattiker, Huang and Scharz, (2007).

E- Procurement has been defined differently by various scholars. For example, Wu, Ross and Zsidisin, (2007) define E- Procurement as the use of information technologies to facilitate business purchase transactions for materials and services. It utilizes electronic commerce (internet) to identify potential sources of supply to purchase goods and services, to transfer payments and to interact with suppliers Min and Galle, (2003). E- Procurement solutions include e- cautions, e- tendering, e- marketing, and e- buying and e- commerce.

At Ntungamo District (NTUNGAMO ) has the responsibility of delivering pharmaceuticals and medical supplies to over 70 district health offices and hospitals spread throughout the nation. Mountainous terrain throughout the country, the fact that some health facilities are located on islands and the poor condition of roads all serve to complicate the distribution operation. Add to this the disproportionately high complications of e procurement and the limited resources of the government's health budget and the need for efficient transport management becomes clear. Transaid will be invited by Ntungamo District of Uganda to undertake an assessment of their E-

procurement in order to provide a series of recommendations as to how they could reduce costs, increase efficiency and improve E- procurement.

The result of the operational assessment was the development of a report detailing recommendations for improvement of the existing Ntungamo E- procurement activities. The recommendations include suggestions for an appropriate policy and system implementation, resolution of organizational process issues, which had been adversely affecting E- procurement operation, and the subsequent execution of an outsourcing study to determine an effective solution for ongoing expansion of the delivery network. With the adoption of these recommendations Ntungamo will be expected to benefit from reduced E- procurement costs, and many other associated costs.

### **1.2. Statement of the problem:**

The accelerating pace of change in technology demands that organizations be more flexible and adoptive in the business world. Evolutions in information technology have become paramount to the business world and thus various strategies such as e-commerce, e- marketing have been adopted by organizations in a bid to improve their competitiveness and efficiency in the supply chain both internally and externally. Ntungamo Procurement officers have adopted new strategies like e-auctioning and e- tendering in an attempt to achieve sound supply chain performances. However, the adoption of these new technologies, such as use of the internet to source for suppliers as well as purchasing goods and services by firms has often proved to a big challenge due to the failure to put in place structures for effective monitoring and trucking hence organizations' supply performances have continuously declined. Ntungamo has over time experienced delays in service deliveries of the drugs to the intended Hospitals mainly perpetuated by system failures and bureaucracy associated with the paper work and manual handling of the process .This has necessitated the adoption of e-procurement so as to consolidate and quickening the delivery of medical supplies. This research therefore seeks to find out whether e- procurement is a deliverer of real value in terms of quality goods and services, timely delivery and great savings in the supply chain.(emiliani M stece (2004)

### **1.3. Purpose of the study:**

The purpose of this study was to determine the impact of e- procurement on organizational performance.

### **1.4. Objectives of the study:**

1. To examine factors influencing adoption of E-procurement at Ntungamo District local government.

2. To determine different forms of E-procurement used at Ntungamo District local government.
3. To determine the relationship between E-procurement and service delivery.

#### **1.5. Research questions:**

1. What factors influencing adoption of E-procurement Ntungamo District local government?
2. What different forms of E-procurement used at Ntungamo District local government?
3. What is the relationship between E-procurement and service delivery?

#### **1.6. Scope of the study:**

##### **1.6.1 Content scope**

The study is limited to the effects of E-procurement on service delivery

##### **1.6.2 Geographical scope**

The study was conducted at Ntungamo District local government located in western Uganda.

##### **1.6.3 Time scope**

The study covered in the period of three months that was from February to April 2015.

#### **1.7. Significance of the study:**

- The study added knowledge to the field of procurement through the use new technological methods like the use of internet.
- The research provided reference material for upcoming researchers by adding on the existing literature in related studies.

The study helps the researcher to improve and build on their research skills.





## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0. Introduction.

This chapter deals with various topics and sub topics about e-procurement and supply chain performance. It includes the definition of e-procurement, significance and drivers of e-procurement, implementation of e-procurement and the relationship that exists between e-procurement and supply chain performance.

**Procurement** is the acquisition of goods, services or works from an outside external source. It is favorable that the goods, services or works are appropriate and that they are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time, and location. Corporations and public bodies often define processes intended to promote fair and open competition for their business while minimizing exposure to fraud and collusion Presuti W (2003)

#### 2.1 The evolution of e-procurement;

As a major part of supply chain management, lenders and fearon (1997), supply chain in procurement are traditionally supported by information technology. With the implementation of enterprise resource planning (ERP) system in 1980s electronic data interchange connections with suppliers were established. For example close partnerships have been forged with direct material suppliers through the automation of delivery schedules by linking company's materials management system. Supply chain management; an international journal (2005)

During the 1980s opportunities in rapidly growing countries like chain, India, many in Latin America, developing countries and former Soviet Union began to encourage foreign investment and growth. Many firms expanded forward to respond to opportunities for new markets. For example through backward towards international suppliers both for lower costs and higher technology. Malone and Crowston, (1991) urge that the increasing global interdependencies and the accelerating pace of changes demanded more flexible and adoptive organization. By early 1990s managers of leading firms were reducing costs, improving the entire system which they managed and related to their suppliers and customers, Flaherty (1996).

It's not surprising therefore that computer and electronic sector quickly decided to adopt electronic data interchange technology, just in time and lean procurement firms techniques, Malone and Crowson (1991).

Following electronic and computer sector, many procurement firms took advantage of EDI technology including auto, retail business, health care providers, insurance companies and universities, Kimberly (1991)

E-procurement arose through the proliferation of the internet as a platform for inter organizational systems in the late 1990s and has been particularly significant for the strategic management of supply chain, networks and procurement firms as well, Evans and Wurster's (2000). Davila et.al (2003) indicates that leading age firms are proceeding with their e-procurement initiatives.

## **2.2 Concepts of e-procurement;**

Many scholars and researchers have tried to give a clear picture of what e-procurement means as shown below. Wu et.al (2007) defined it as the use of information technologies to facilitate business to business purchase transactions for materials and services. According to Dolmetsch et.al (2000) e-procurement deals with the management of supply chain in the procurement of indirect goods that's based on internet information systems plus e-markets.

Turban et. Al (2006) defines the concept as the purchase of goods and services for firms through the World Wide Web. Electronic procurement involves activities like online banking which is supposed to reduce the need for customers to visit branches or use call centers, online retailing likewise reduces the need for in-store or call center staff; Kraemer and Dedrick (2001) carrying out transaction online can also refer to e-procurement. Initial application for web based procurement has concentrated on corporate efficiency by improving data flow and error reduction, Mohsen, Attaran (2001).

It can also be in conjunction with the varied technologies of electronic commerce such as document imaging work flow management, bulletin boards and emails to enable business process re-engineering, industrial management and data system (2001)

## **E-Procurement**

In simplest terms, electronic procurement defines the automation of an organization's procurement processes using web-based applications. Unlike enterprise resource planning (ERP) systems that enable businesses to automate their internal processes, e-procurement enables widely dispersed buyers and suppliers to come together, interact, and execute purchase transactions directly over the Internet

A **performance**, in performing arts, generally comprises an event in which a performer or group of performers behave in a particular way for another group of people, the audience. Choral music and ballet are examples. Usually the performers participate in rehearsals beforehand. Afterwards audience members often applaud. After a performance, performance measurement sometimes occurs. Performance measurement is the process of collecting, analyzing and/or reporting information

regarding the performance of an individual, group, organization, system or component. According to Brown, Ju; Brown, John (2006).

### **E-Procurement.**

E-procurement has been defined differently by various scholars. For example Wu, (2007) defined e-procurement as the use of information technologies to facilitate business purchase transactions for materials and services.

This research recognizes the extensive nature of e-procurement and uses the definition by Evans P Wurster, (2000) where e-procurement is referred to as business to business purchasing practices that utilize electronic commerce to identify potential sources of supply, to purchase goods and services, to transfer payments and to interact with suppliers.

Many companies have adopted the use of internet with an aim of improving their supply chain performance both in the internal and external processes and those processes beyond their boundaries frihlich M Westbrook, (2002).

### **Categories of e-procurement.**

E-procurement is divided into two categories namely indirect and direct e-procurement Minahan and Degan, (2001). Direct e-procurement includes the acquisition of raw materials, parts and assemblies and all components that are used in the manufacturing process of finished products such as sheet metal, semi conductors and petrochemicals Gabbard E (2003).

Indirect e-procurement includes the acquisition of non production goods and services such as office supplies, advertising, casual labour etc. Gatti , T. F Huang X Scharz J. L(2007), and it usually consists of 30 – 60 percent of the firm's expenditure. Much of the literature on e-procurement has focused on indirect purchases maintenance, repair and operating supplies – MRO<sup>s</sup>) as stated by Evans P Wurster, (2000 )

Implementation of e-procurement may initially be more suitable to certain contexts within procurement Gilbert A (2000), Usually companies adopt e-procurement systems to manage the supply of critical products and services and as such, the indirect purchases (MROs) tend to be transferred to an electronic platform of the supply stage Gosains Mlhotra (2005).

The internet in this case can maximize supply chain performance by ensuring steady flow of supply both internally, externally and other global processes Gosains Mlhotra (2005). In a general e-commerce context, it is widely suggested that services rather than products are more suitable for e-procurement Hartley JI lane M.D , Dulplaga E.A (2006)

Another issue is the frequency of use of MROs: while being the most common e-procurement purchase, it is also the most frequent organizational purchase due to their intangibility and high transactional costs. This is explained by the fact that service providers fall under the umbrella of MROs which leads to a struggle for competitive advantage GosainsMalhotra, A El Sawy, O.A (2005)". As a result electronic media works to support the relationship between suppliers and buyers which in turn improves the supply performance through exchange of information.

### **Drivers of e-procurement**

The transition to modern e-procurement calls for strategic adoption. It is one strategy, though, that requires much organizational change Hartley JL Lane M.D, Dulplaga. E.A (2006). Common e-procurement tools include online catalogues, e-auctions, e-sourcing and e-collaboration and the ever advancing capabilities of technology are all important drivers of e-procurement implementation for businessmen Mohindroo A (2003).E-procurement can facilitate improved accuracy, reduce clerical work and order-cycle time as well as increase productivity Neef D (2001)

### **2.4 Factors Influencing adoption of e-procurement**

There are five main factors that appear to influence the adoption of e-procurement which include the following;

The main organizational factors that appear to impact on the likely adoption of e-procurement are size and type of operation; e-procurement is more evident in bigger organizations than smaller enterprises Wu, F Zsidisin G A Ross A.D (2007)). Reasons for this include owner's attitude, resource poverty, limited IT infrastructure, limited knowledge and expertise with information systems in the small enterprises and organizations). However, e-procurement can be viable for SMEs through web-based enterprise cooperation or through the use of the business case for e-adoption Wu, F Zsidisin G A Ross A.D (2007)

Some types of organizational operations seem to lend them to e-procurement. The use of e-procurement applications often goes hand in hand with certain purchase – supply forms or systems which require reduced human intervention and paper work and often resulting in improved performance for buyers and suppliers,. Operations with high usage of MRO supplies are more likely to vary in the number of buyers and suppliers, their connectivity and purpose of trading. Make-to-order supply chains differ from make-to-stock supply chain. Logistics requiring regular tracking of items are more likely to use e-procurement Minahan T.A (2001)

Organizational readiness is another factor that impacts on e-procurement strategy Min H Galle W.P (2003)Many firms are experiencing a number of major problems of

considerable media and software vendor type and often no theoretical basis behind the determination of which application are most appropriate. To attain the greatest benefits, purchasing processes should be evaluated and improved before adopting e-procurement tools. Internet technologies enable integration with trading partners, yet amplify the need for fundamental organizational change. Internal barriers to e-procurement adoption are more significant than customer or supplier barriers. Lack of organizational readiness has been attributed mainly to human readiness. This implies that there is need for supply firms to exhibit professionalism to ensure that their own organizations are ready for e-procurement adoption, Gattiker, T.F Huang X Scharz J.L (2007)

E-procurement can be used to support broader public or government procurements through both traditional and e-commerce processes. E-procurement through public domain can be seen as a policy tool to support the delivery of public procurement policy, improving transparency and efficiency Carayannis and Popescu, (2005). It can assist government in the same way it does to business to make better decisions by improving supply performance and getting more value Presuti W (2003)

Strategic factors, where a company may adopt e-technologies as part of its overarching strategy, contributing to improving the firms' performance and increasing competitive advantage. The strategic use of e-business has been considered in several studies, and how e-business strategy aligns with the overarching business strategy of a firm. The internet will be only become a powerful source of competitive advantage if it is integrated in the firms' overall strategies. The role of IT has evolved from a productivity tool to a more strategic level. An e-business strategy should specify the aims, goals and context of the application; these choices should be aligned processes Presuti W (2003). These studies suggest that if organizations are being strategic in their e-procurement adoption, they should have a specific e-procurement strategy and that this will be align with broader organizational strategies.

Different factors in supply chain performance have got different powers, legitimacy and urgency. E-procurement can have an effect on trust in supply chain relationships Presuti W (2003); Lack of assistance and structural inertia of large organizations in supply chains can be a disincentive to implement e-business Zhu, (2006). Different industries show different propensities to e-procurement adoption, related to use of existing information exchange infrastructures prior to the advents of the internet. The greatest benefit of e-business occurs when its application is fully integrated

throughout the supply chain of a firm. E-procurement is more likely to be adopted if it is perceived that suppliers have capabilities to deal with it; there are difficulties in integrating information systems across firm's boundaries in supply chains if suppliers lack capability Emiliani M SteceD(2004). "

## **2.5 Benefits of e-procurement**

GosainsMalhotra, A El Sawy, O.A (2005)"believes that e-procurement offers enough benefits to a firm to be considered a strategy for competitive advantage.

There is potential for organizations to realize numerous benefits from e-procurement implementation. Cost savings can be achieved where buyers report an average reduction in purchase price of up to 17 percent. An interesting point is made by Gosains Malhotra, A El Sawy, O.A (2005)"who claim that the internet actually reduces "maverick" buying.

Prices are also low will bed through aggregate buying which allows multiple buyers form one organization to buy as one customer and makes it easier to monitor expenditure within an organization Barrat et al, (2002).

Improved process efficiency is a key benefit of e-procurement where order fulfillment time can be shortened by up to 80 percent Minahan, (2001) and reducing inventory cost by as low as 50 percent. E-procurement has the potential to streamline inefficient procurement process by removing the manual, paper-based administrative and bureaucratic elements inherent in procurement systems Bartezzaghi et al, (2005) thereby ultimately improving an organization's returns on investment.

Among various categories of eCommerce, B2B eCommerce 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 eCommerce 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

Many organizations are seeking new ways to reduce procurement costs which typically represent the largest cost item in business operations. According to industry

sources, the indirect procurement expenditure in Australia is about AU\$150 billion per annum and each procurement process incurs about A\$125 per transaction Chen, I.J. and Paulraj, A. (2004)). 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. 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 Chen, I.J. and Paulraj, A. (2004)

At this stage, very little rigorous research has been put into evaluating e-procurement systems including the use, impact and the realization of benefits and, hence, there is a lack of information that can be used as a basis for assessing costs and benefits involved (Subramaniam and Shaw 2002; Da Vila et al. 2003; Tonkin 2003). Most benefits of e-procurement systems have only been qualitatively expressed without a systematic analysis, because measuring the impact of IT, especially when the impacts created are beyond the organizational boundaries as in the case of e-procurement systems, has proved to be difficult. As a consequence, many organizations are still reluctant to adopt e-procurement systems, since an e-procurement system requires significant investment in infrastructure, technology, integration and Boonstra, A. (2006),

A framework is, therefore, necessary to guide researchers and practitioners to systematically assess e-procurement systems, which assists in developing better understanding and gaining rich insights into the use and impact of e-procurement systems. In addition, an instrument that can be used by organizations to measure success of e-procurement systems and to identify areas for improvement will be valuable for practice. The proposed research framework for evaluating e-procurement systems and the arguments on why existing success models cannot be applied in the context of e-procurement systems are discussed in the next section.

### **Electronic procurement encompasses several forms**

Electronic procurement (EP) can be defined as using Internet technology in the purchasing process. It is important to note that this definition is narrow in the sense that it excludes old applications like ordering by telephone or by fax. On the other hand, this definition is relatively wide, because it not only encompasses the use of Internet applications in the purchasing process, but it also includes the use of intranet and extranet applications. For example, using this definition ordering office supplies by using a supplier catalog on a website is a form of EP.



Based on this definition of EP a large number of forms of EP can be distinguished. Some of these forms have received a lot of attention already and they are by now quite well-defined and relatively well-developed. Other forms of EP are still quite young and immature. Some of them will be mature, others may never reach that state. In this paper we focus on the forms of EP that

seem quite well-defined and relatively well-developed. We distinguish between the following forms:-

- e-ordering;
- web-based ERP;
- e-sourcing;
- e-tendering;
- e-reverse auctioning;
- e-informing.

## **2.6 The different forms of E-procurement**

In the following we shall briefly define the six forms of EP.

**E-ordering** as well as web-based ERP is the process of creating and approving purchasing requisitions, placing purchase orders as well as receiving goods and services ordered, by using a software system based on Internet technology. In the case of e-ordering the goods and services ordered are indirect goods and services (i.e., non-product related goods and services). The supporting software system (an ordering catalog system) is usually used by all employees of an organisation. In the case of web-based ERP the goods and services ordered are product-related. These are called direct goods and services. Usually only the employees of the purchasing department (or the planning department) are using the supporting software system (a web-based ERP-system (Enterprise Resource Planning)). It maybe clear that ordering of indirect goods and services usually takes place on an ad hoc basis, whereas ordering of direct goods and services usually is plan-based.

**E-sourcing** is the process of identifying new suppliers for a specific spend category, using Internet technology (usually the Internet itself). By identifying new suppliers a purchaser can increase the competitiveness in the tactical purchasing process for this spend category. E-sourcing is a way of decreasing the supply risk associated with this spend category Chen, I.J. and Paulraj, A. (2004)

**E-tendering** is the process of sending RFI's and RFP's to suppliers and receiving the responses of suppliers back, using Internet technology. Usually e-tendering is supported by an e-tendering system. Often the e-tendering system also supports the analysis and assessment of responses. E-tendering does not include closing the deal with a supplier. As a matter of fact, e-tendering smoothenes a large part of the tactical purchasing process Chen, I.J. and Paulraj, A. (2004), without focusing on the content (i.e. spend category) of that process.

In practice an auction enables a supplier to sell (surplus) goods and services to a number of (known or unknown) buying organizations. During a relatively short time frame the buying organizations involved submit bids for the goods and services that are auctioned. The auction operates with an upward price mechanism or a downward price mechanism. A reversed auction is the opposite: it enables a buying organisation to buy goods and services needed from a number of (known or unknown) suppliers. E-reverse auctioning is the Internet technology based equivalent of reverse auction. Usually e-reverse auctioning focuses on the price of the goods and services auctioned. In most cases, other criteria are neglected during the e-reverse auction. Of course, other criteria can be used in a previous phase in order to determine which suppliers should be invited to join the e-reverse auction. E-reverse auctioning does really close a deal between a buying organization and a supplier, if parties agree on the price. Chen, I.J. and Paulraj, A. (2004),

Unlike the previous forms, e-informing is a form of EP that is not directly associated with a phase in the purchasing process like contracting or ordering. E-informing is the process of gathering and distributing purchasing information both from and to internal and external parties, using Internet technology. For example, publishing purchasing management information on an extranet that can be accessed by internal clients and suppliers is a way of e-informing. This form is also called purchasing intelligence or spend control.

Figure 1 shows the six forms of e-procurement plotted in the purchasing process according to (van Weele, 1988). E-sourcing supports the specification phase: it identifies suppliers that can be used in the selection phase. E-tendering supports the selection phase: it facilitates the RFI- and RFP-activities, usually including support for the analysis and assessment activities. E-reverse auctioning supports the contract phase: it enables closing a deal with a supplier. Additionally, we have included a separation between *transaction* oriented forms and *information* oriented forms. The transaction oriented forms are separated in *indirect* transactions and *direct* transactions.

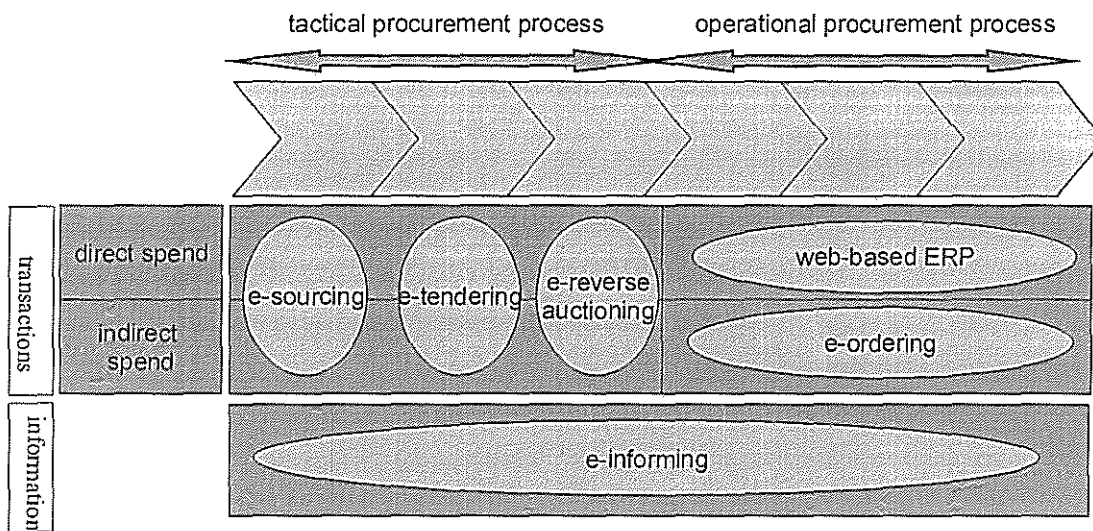


Figure 1

figure 2 E-procurement process

**SOURCE : van Weele, 1988.**

Figure 3 below shows the bid advert of Ntungamo District local government.

|   |  | <h2 style="text-align: center;">NTUNGAMO DISTRICT LOCAL GOVERNMENT</h2> <h3 style="text-align: center;">OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER</h3> <p style="text-align: center;">TELEPHONE- MOBILE: 0772 370348 P. O. Box 01 NTUNGAMO, UGANDA. DISTRICT WEBSITE: <a href="http://www.ntungamo.go.ug">www.ntungamo.go.ug</a></p> |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
|--|--|---|-----------------|--------------|----------|------|-----------------------|-----------------------------|---------------------|-----------------------------|-----------------------|--|--|---|---------------------------------|--|
| <h3>INVITATION FOR BIDS</h3>   |  |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| <p>1. Ntungamo District Local Government through NAADS Secretariat has allocated funds for supply and delivery of Tea Seedlings to Farmers in selected Sub counties shown in the table below:</p> <p>2. Ntungamo District Local Government has also allocated funds for procurement of consultancy services indicated in the table below:</p>  |  |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| No   | Procurement Reference Number                         | Description   | Cost of the Bid | Bid Security |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| 01   | NTUN546/SUPLS/13-14/00009                            | Supply and Delivery of Tea seedlings to mother gardens in selected Sub counties   | 100,000/=       | 4,000,000/=  |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| 02   | NTUN546/SRVCS/13-14/00004                            | Design and Documentation of Nyarutuntu-Ruhaama County Headquarters Gravity flow scheme  | 50,000/=        | N/A          |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| 03   | NTUN546/SRVCS/13-14/00005                            | Design and Documentation of Mini Solar Pumping Scheme for Kashenyi Rural Growth Centre  | 50,000/=        | N/A          |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| 04   | NTUN546/SRVCS/13-14/00006                            | 1. Training on Revenue mobilization, monitoring and collection.<br>2. Training in Gender Mainstreaming and Gender policy<br>3. Training in Procurement and Contract Management  | 50,000/=        | N/A          |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| <p>3. Ntungamo District Local Government now invites sealed bids from eligible bidders for provision of the above mentioned Supplies and Services.</p> <p>4. Bidding will be conducted in accordance with Open Domestic Bidding procedures contained in the Government of Uganda's Public Procurement and Disposal of Public Assets Act, 2003 and is open to all bidders.</p> <p>5. Interested eligible bidders may obtain further information and inspect the bidding documents from the office of the Procurement and Disposal Unit from 9:00 am to 05.00pm (local time) during working days from the date of this advert.</p> <p>6. A complete set of Bidding Documents in <i>English</i> may be purchased from the Office of Procurement and Disposal Unit upon payment of a non-refundable fee stipulated in the table above. The method of payment will be by paying to Ntungamo District General Account No.9030005606410 Stanbic Bank -Ntungamo branch.</p> <p>7. Bids/applications must be delivered to the address below at 8 at or before 10.00 am on 17<sup>th</sup> April 2014.</p>   |  |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| <p>Late bids shall be rejected. Bids will be opened in the presence of the bidders or their representatives who choose to attend at the address given below at 10:30am 17<sup>th</sup> April 2014.</p> <p>8. Address for inspection, collection and delivery of bid documents is the Procurement and Disposal Unit offices Ntungamo District Local Government.</p> <p>9. Address for Bid Opening is the Procurement and Disposal Unit Ntungamo District Local Government.</p> <p>10. The Planned Procurement schedule (subject to changes) is as follows:</p> <table border="1" style="width: 100%;"> <tr> <th style="text-align: left;">Activity</th> <th style="text-align: left;">Date</th> </tr> <tr> <td>a) Publish bid notice</td> <td>27<sup>th</sup> March 2014</td> </tr> <tr> <td>b) Bid Closing date</td> <td>17<sup>th</sup> April 2014</td> </tr> <tr> <td>c) Evaluation Process</td> <td>22<sup>nd</sup> - 28<sup>th</sup> April 2014</td> </tr> <tr> <td>d) Display and communication of best evaluated bidder notice</td> <td>29<sup>th</sup>-30<sup>th</sup> April 2014</td> </tr> <tr> <td>e) Contract award and signature</td> <td>After the expiry of the best evaluated bidder notice</td> </tr> </table> |  |   |                 |              | Activity | Date | a) Publish bid notice | 27 <sup>th</sup> March 2014 | b) Bid Closing date | 17 <sup>th</sup> April 2014 | c) Evaluation Process | 22 <sup>nd</sup> - 28 <sup>th</sup> April 2014 | d) Display and communication of best evaluated bidder notice | 29 <sup>th</sup> -30 <sup>th</sup> April 2014 | e) Contract award and signature | After the expiry of the best evaluated bidder notice |
| Activity   | Date   |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| a) Publish bid notice  | 27 <sup>th</sup> March 2014                          |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| b) Bid Closing date  | 17 <sup>th</sup> April 2014                          |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| c) Evaluation Process  | 22 <sup>nd</sup> - 28 <sup>th</sup> April 2014       |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| d) Display and communication of best evaluated bidder notice   | 29 <sup>th</sup> -30 <sup>th</sup> April 2014        |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| e) Contract award and signature  | After the expiry of the best evaluated bidder notice |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |
| <b>CHIEF ADMINISTRATIVE OFFICER-NTUNGAMO</b>   |  |   |                 |              |          |      |                       |                             |                     |                             |                       |  |  |   |                                 |  |

SOURCE: NEW VISION

## **2.7 Service delivery:**

Service delivery is taken to be function of an organization's ability to meet its goals and objectives by exploiting the available resource in efficient and effective way (Eccles, 1991). Service delivery entails effectiveness, which refers to the firm's ability to serve and produce what the market requires at a particular time and efficiency, which means meeting the objective at the lowest possible cost with the highest possible benefits (Grassing, 2002). In order to assess service delivery, managers use action designed to generate suitable long term improvement, Child, J. (1997).

### **2.7.1 Factor affecting service delivery in public organization.**

**Availability and level of resources can also be used to analyze the service delivery of an organization.**

Resources which may include assets, finance, employ skills and organization process are key dimensions/indicators of organizational service delivery over time (Rumelt, 1994). Service delivery dimension/measures in organization are those which enable organization to direct their action towards achieving their strategic objective (Brown, 1996). Organization service delivery dimension/measures used should be those which support business objective. This is because according to him, organizational services delivery is central future wellbeing and prosperity of any organization. The group term compliance as a plethora of red tape that affects organizations of all complexions.

(Davis et al, 2005).

**Effective information systems may also affect the level of service delivery.**

The focus should be on enhancing value for money, achieving fairness, openness, and transparency without restricting public servants in a tangle of rules. A culture of ethics, and innovation should be cultivated (Dye, 2005). Effective and accurate information enables smooth operation of activities.

**Efficiency and effectiveness.**

Efficiency is defined as maximizing inputs for the required output, on the other hand effectiveness is defined as the extent to which the defined task has been accomplished and is consistent with notions of national accountability. Effectiveness may be measured in terms of quality services, customer satisfaction and achievement of goals (Drucker, 1999).

## **Corruption is one of the causes for poor service delivery.**

According to Evenet (2003), one of the contractors revealed late and inadequate funding for most LG contracts. He said they have to borrow money to complete the projects and yet the interest rates are very high. Some late contracts are renegotiated and prices adjusted upwards. "Every wise contractor must consider tokens to district officials, and other side costs in the contract price thus the high cost for most contracts." he said. The contractors prefer timely execution of contracts, to save costs. The delays are mainly attributed to government bureaucracy, and management weaknesses at LG level induced by corrupt tendencies.

## **Market power**

This is another factor which affects the level of services,. Market power is indicated by the level of scale economies of scale and reduction of transaction costs. Organizations should continuously improve its service through innovation and input value. Therefore in order to asses service delivery an organization should be examined in terms of quality services, flexibility, resource utilization and innovations. (poder, 1998).

## **Management practices.**

Steane et al, say that, procurement system implemented with sound management practices in place ensure successful service delivery to stakeholders. (Gelderman, 2006).

The sound practices demand that those responsible for implementing procurement should ensure that the objectives are clear and that quality services are sustained. There should be sound client and contract deliverer competencies in communication, team building relationships and sound planning for control (Walker and Sidwell 1996). He also says that performance quality should not be measured on the basis of time and cost only but also service quality as well plus other relevant measures (Boer, 1998).

Competition also affects service delivery in public organization. The procedures encourage competition like use of open domestic or open international bidding method of procurement. In these methods many potential suppliers both locally and internationally are invited which encourage competition which leads to better quality services to the organization.

## **2.8 The relationship between e-procurement and service delivery.**

Since procurement is very important element in supply chain. In order to understand the concept in more details, this study is using these factors as constructs to study the relationship of e-procurement methods on supply chain performance.

According to (Malcon Wheattly, 2000), procurement is not just a system of making purchases on line. if properly implemented, it can connect companies and their business process directly with the service delivery while managing all interactions between them.

Lee (2004) specifies that to make a supply chain more agile, it has to react to short term changes in demand or supply quickly and to handle external descriptions smoothly. The use of e-procurement enables fast responses, creating high responsiveness and cuts costs right through the The focus of a company's e-procurement will be making its supply chain more efficient through paperless processing of order, receipt and invoices. Increasing costs, competition and customer pressure will drive companies to review their supply chain processes and tap into the enormous savings potential from indirect spending E-procurement

According to Leenders and Fexion, 1997; the major part of service delivery is traditionally supported by information technology with the use of enterprise resource planning (ERP), manufacturing resource planning (MRP) or electronic data interchange connections with service deliveries that were established in 1980s. .

Gebaner and Seger, 1998 identifies that the diffusions of e-procurement systems in the late 1990s has created the potential for reorganizing supply chains. Compared to enterprise resource planning, these systems were considerably less expensive and more flexible due to increased standardization on a tactical level. More or less all studies on e-procurement, report large efficiencies regarding supply chain management.

The main idea of e-procurement is to include the end-user in the procurement process via an electronic multi-vendor catalog and to close the process gaps in the supply chain for indirect According to (Dalmalch et al, 2000), e-procurement deals with the management of supply chains in the procurement of indirect goods that is based on internet information systems and identified five main improvements in the supply chain that e-procurement enabled supporting managers' budgetary control offering robust process performance with fewer failures, offering far greater transparency and accessibility across the whole process and improving management information reinforced user compliance, improving systems reliability and ensuring compliance to process.

The study discovered that firms should implement e-procurement systems in supply chain for better communication and performance improving. E-procurement

undoubtedly promotes information sharing and improves supply chain performance. Furthermore, there was no literature reviewed that concern the operations of Ntungamo District Uganda. This further made it imperative for the researcher to carry out a study in order to establish the impact of e-procurement on service delivery of Ntungamo District Uganda.

Supportive than disruptive of the existing industry structure and competitive environment, firms that want to expand into the global markets are more likely to do by adopting e-procurement in order to break into the global production network for procurement firms than trying to sell directly to foreign customers Cavusgil (2003) and Porter.

Gibbs et al (2003) indicate that global firms are expected to perform in terms of increased sales lower costs and improve competitive position. They further noted that its likely for those firms to realize greater impact on performance because they can employ knowledge and resource development through global operation to improve business and more effectively deploy e-procurement technologies.

Vicky et al (2003) says that its critical for managers to understand which e-procurement applications best suits their firm's goals in achieving intra and inter firm integration which increase the overall performance of procurement firms. Hence firms which fail to adopt e-procurement applications might find themselves competitively disadvantaged therefore there is consensus amongst the above scholars on the variables of increase in the overall performance.

Chen (2002) asserts that firms which buy and sell in, international markets are under pressure from trading partners to adopt e-procurement in order to improve coordination with other members in the value chain especially in global production network that requires partners to adopt the technology. Kotler (2001) is in agreement with the above in order for firms to realize a change in their performance, since they need to embrace new technologies like e-procurement applications that enable them achieve their future prospects.



## CHAPTER THREE

### METHODOLOGY

#### 3.0 Introduction

This chapter presented methods and procedures that the researcher used when assessing the findings of the study. And it also presents the important information (data) and specific fields of the survey carried out in national medical stores.

#### 3.1 Research Design

The research designed in such a manner, which enables the researcher to meet the objectives of the study, the researcher was therefore use both qualitative and quantitative research designs, which was descriptive and analytical in nature. The descriptive aspect of the research design was used in establishing the company service delivery and the analytical research design was to establish relationship E-procurement and Service Delivery.

#### 3.2 Survey population

The survey population was staff members Ntungamo comprising of purchasing officers, store keepers, accountants, medical managers and the general managers of Ntungmo Stores who was just enough to represent the medical fraternity in Uganda.

A total of 60 staff members from different departments was proposed/selected. The composition was as follows; 10 store keepers,5 medical managers,5 accountants and 40 general officers.

#### 3.3 Sampling method

The researcher will use purposive sampling to select the samples from the population. Simple random sampling was to limit on the biasness of purposive sampling. Numbers was allocated, written on small pieces of paper, shuffled and randomly picked by respondents until all the required respondents was over.

#### 3.4 Sampling Size

The sample size of 30 staff members was used determined by formulae of Krejcie Morgan (1970) shown below

$$S = \frac{x^2 NP(1-P)}{d^2(N-1) + x^2 P(1-P)}$$

S= Sample Size

$x^2$ = the table value of chi square for 1 degree of freedom at the confidence level of 3.841

N= the population

P= population proportion assumed to be 0.50 which provides the maximum sample size

d= the degree of accuracy expressed as a proportion in this case was 0.050

Having the population set to 0.5 ensured a significant sample size

### **3.5 Data collection**

#### **3.5.1 Source of data**

Data was both primary and secondary. Primary data was collected by the use of questionnaires and secondary data was got from reports, journals, and internet.

#### **3.5.2 Instruments:**

Quantitative data was collected using questionnaire. A self – administered questionnaire was designed using Likert scale and they was distributed to staff members of National Medical Stores who will fill them within 4 days of research period.

### **3.6 Data processing, analysis and presentation**

Quantitative data was collected by the questionnaire which was first coded. In the coding process, a coding sheet was constructed. A number then assigned to each answer in the questionnaire with a corresponding number on the coding sheet. Then the same questionnaire was constructed on the computer using excel. Frequency tables, and graphs was worked out basing on the data entered into excel. In these frequency tables, and graphs analysis was done with a corresponding percentage. However statistical packages for social sciences (SPSS) were used to determine the relationship between the two variables.

### **3.7 Limitations and anticipated solution**

Respondents was not be able to give confidential information, which was sufficient to the researcher. However, the researcher will convince them that research was intended to help them improve on their problems.

There was too much pressure as a result of limited time for the researcher. However, the researcher was devoted most of the time on the research.

Financial constraint since research requires money for printing and transport. However, the researcher minimized the costs as lowest as possible.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.0. Introduction

This chapter presents findings from the study about the impact E-procurement principles and service delivery . The study intended to achieve of to find out the following objective

To examine factors influencing adoption of E-procurement at National Medical Stores.

To determine different forms of E-procurement used at National Medical Stores.

To determine the relationship between E-procurement and service delivery.

#### 4.1 Demographic characteristics of Respondents

The study put into account the sex of the respondents and their academic qualification which were considered relevant to this study. Table 4.1 presents the background information of respondents.

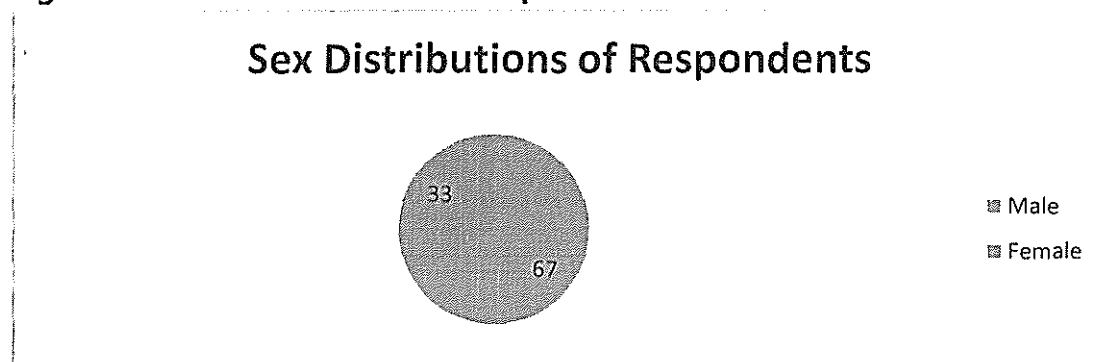
**Table 1: Sex Distributions of Respondents**

| Gender       | Frequency | Percent (%) |
|--------------|-----------|-------------|
| Male         | 20        | 67          |
| Female       | 10        | 33          |
| <b>Total</b> | <b>30</b> | <b>100</b>  |

Source: primary data 2015

Table 4.1 is about the sex distributions of the respondents. It is evident from this gender frequency distribution table that the majority of respondents were males at 67%) while (33%) were females. This tentatively implies that the national medical stores employed mainly more male employees than female employees.

**Figure 4: Sex Distributions of Respondents**



#### 4.2.1 Respondent's Age

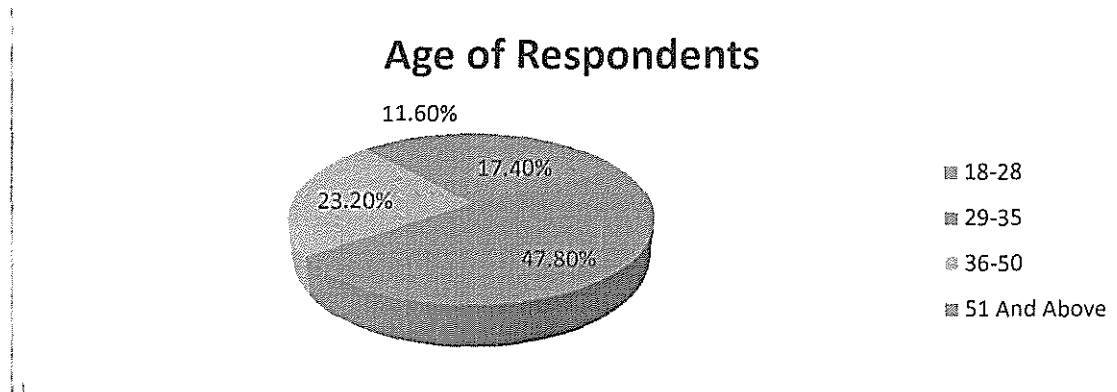
Table 5 shows that most respondents were in the age group 29-35 comprising 33 percent followed by age bracket of 36-50 with 27 percent, the age bracket 18-28 with 23 percent and 51 and above comprising 11.6 percent this implied that most of the employees are aged 36 years and below. This gave the implication that the majority were able with enough experience in matters of Contracts Management and Service Delivery.

**Table. 2: shows the ages for all the respondents.**

| Age of Respondents | Frequency | Percentage (%) |
|--------------------|-----------|----------------|
| 18-28              | 7         | 23             |
| 29-35              | 10        | 33             |
| 36-50              | 8         | 27             |
| 51 And Above       | 5         | 17             |
| <b>Total</b>       | <b>30</b> | <b>100</b>     |

Source: primary data 2015

**Fig 5: The pie chart representation of the Ages of the Respondents.**



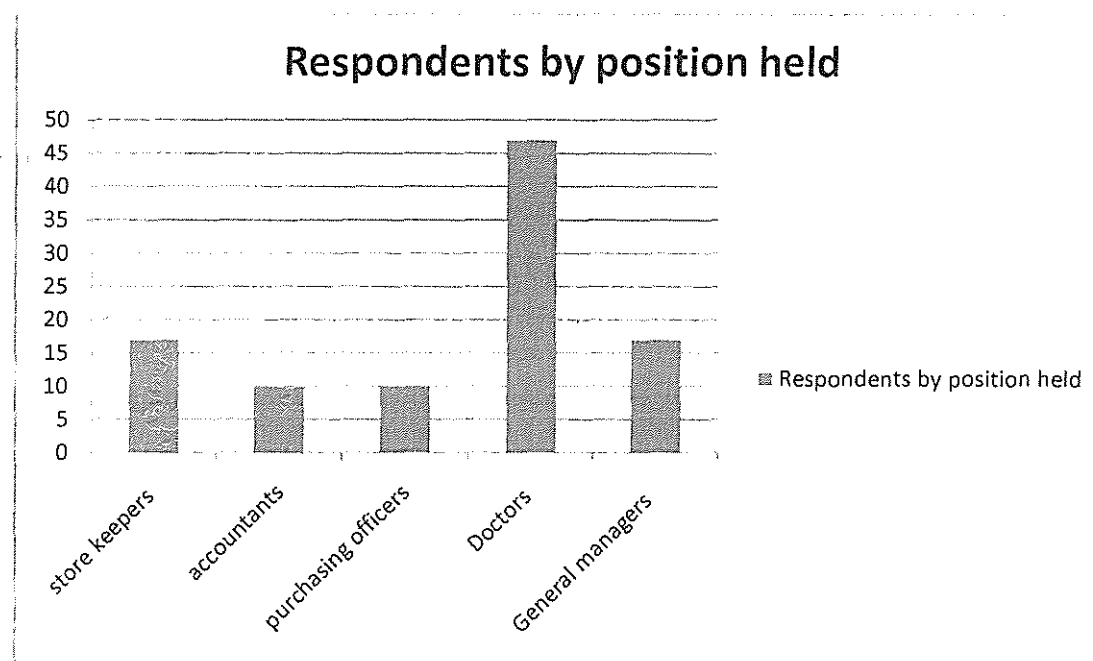
From the pie chart above, the blue portion represents the respondents aged 18-28 years, the red portion shows respondents aged 29-35 years, purple stands for those aged 51 and above and Green represents respondents aged 36-50 years.

**Table 4.2: Respondents by position held**

| Position Held       | Frequency | Percent (%) |
|---------------------|-----------|-------------|
| store keepers       | 5         | 17          |
| accountants         | 3         | 10          |
| purchasing officers | 3         | 10          |
| Doctors             | 14        | 47          |
| General managers    | 5         | 17          |
| <b>Total</b>        | <b>30</b> | <b>100</b>  |

Source: primary data 2015

Table 4.2 shows respondents by various positions they held in their respective companies. Out of the 30 total numbers of respondents, 47 were doctors with the greatest percentage, both store keepers and general managers 17% were employees and last but not least 10 percent were both accountants and purchasing officers implying that there were many doctors in the stores because they are specialist in managing drugs.



**Figure 6: Respondents by position held**

**Table 4: Respondents by terms of service**

| Experience   | Frequency | Percent (%) |
|--------------|-----------|-------------|
| Permanent    | 15        | 50          |
| Fixed Term   | 8         | 27          |
| Temporary    | 7         | 23          |
| <b>Total</b> | <b>30</b> | <b>100</b>  |

**Source: primary data 2015**

Results in Table 4.3 revealed that most of the respondents (50%) were in the permanent category. 27% and 23% were in the fixed term and temporary categories respectively. The study noted from the above results that majority of staff in National Medical Stores Entebbe were permanent since this stores need expertise on managing them effectively for given time period.

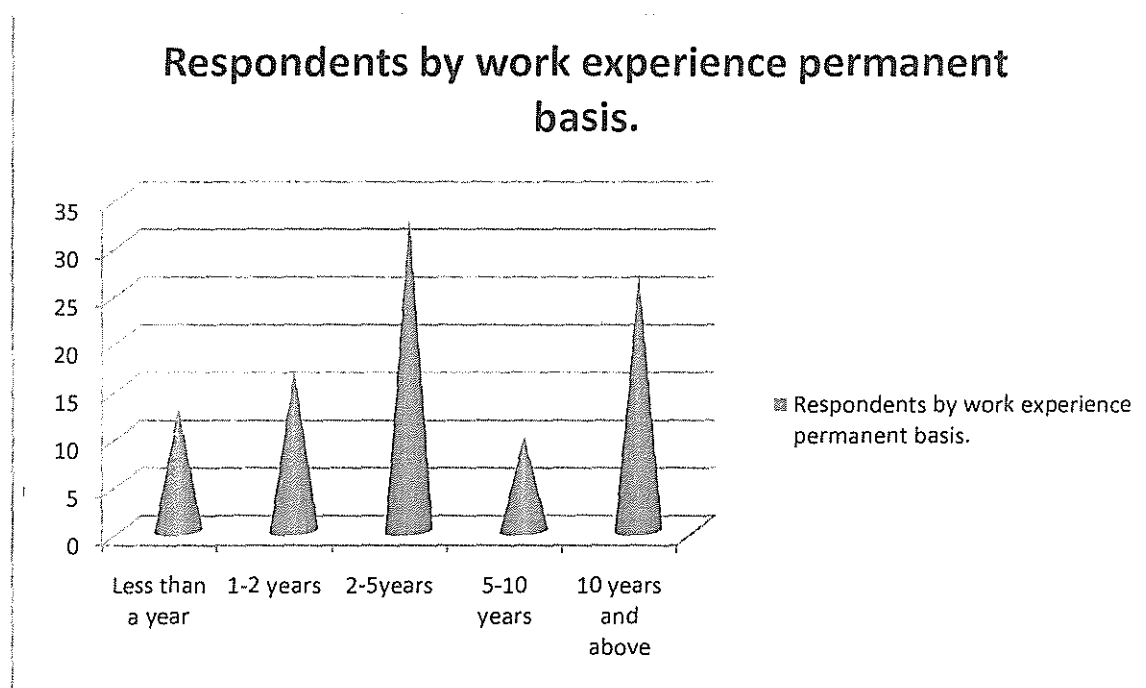
**Table 5: Respondents by work experience permanent basis.**

| Period Worked      | Frequency | Percent (%) |
|--------------------|-----------|-------------|
| Less than a year   | 4         | 13          |
| 1-2 years          | 5         | 17          |
| 2-5years           | 10        | 33          |
| 5-10 years         | 3         | 10          |
| 10 years and above | 8         | 27          |
| <b>Total</b>       | <b>30</b> | <b>100</b>  |

**Source: primary data 2015**

Table 4.4 shows the respondent's work experience in the company. The results indicates the majority were in the category of 2-5 years represented by 33% of the total respondents. 10% were in the category of 5-10 years, and 13% and 17% in 1 year and below. 1-2 years categories respectively. Only 27% were in 10 years above category. This may be true because most of the respondents were fresh graduates whose work experience was short. It was realized that most of the respondents had worked for not more than 10 years. However, since majority was on permanent job basis, they had relevant information needed for this study as individuals who had stayed in one place.

**Figure 7: Respondents by work experience permanent basis.**



**Source: primary data 2015**

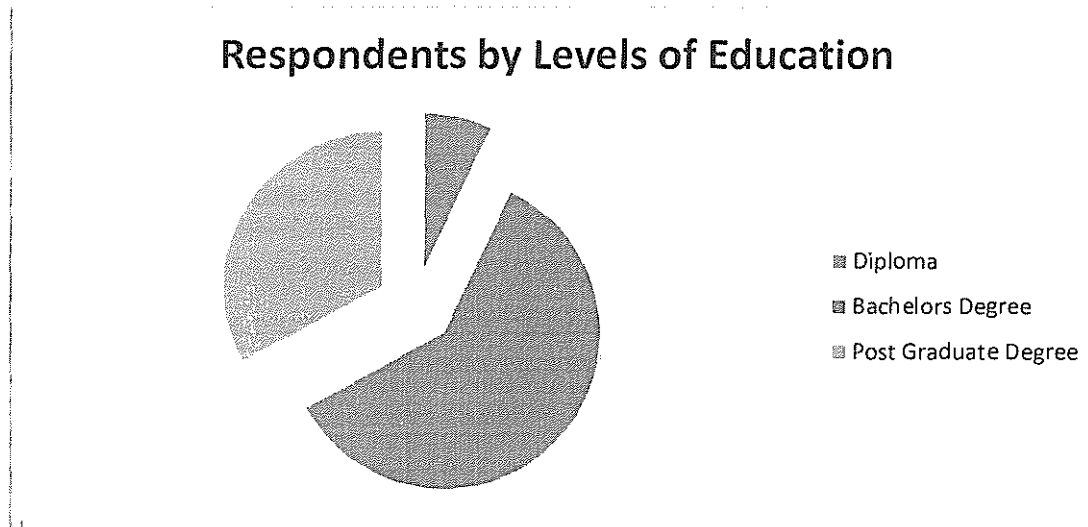
**Table 6: Respondents by Levels of Education**

| Educational Levels   | Frequency | Percent (%) |
|----------------------|-----------|-------------|
| Diploma              | 2         | 7           |
| Bachelors Degree     | 18        | 60          |
| Post Graduate Degree | 10        | 33          |
| Total                | 30        | 100         |

**Source: primary data 2015**

Results in Table 4.5 revealed that the majority of the respondents (60%) had University Bachelor's degrees. The study noted that this was very important that National Medical Stores should employ and retain competent and qualified staff because most of their activities are technical in nature and requires the use of knowledge, skills and abilities.

**Figure 8: Respondents by Levels of Education**



**Source: primary data 2015**

#### **4.2 The findings on the factors influencing E-procurement** Organizational Factors and e-Procurement Implementation

The research findings point to a strong correlation between e-procurement implementation and user involvement. Where the users within the buying units are involved in the e-procurement structuring the benefits gained is maximized. The customer interaction levels also serve to enhance and optimize the benefits of e-procurement implementation within the automobile companies. These findings agree with (Davila et al , 2002) who enumerated several organizational variables, supplier-

related issues, user understanding, etc, as affecting successful implementation of e-procurement.

### **Managerial Factors and e-Procurement Implementation**

The research findings suggest a strong linkage between top management support and knowledge levels as key in determining the level of success in the e-procurement implementation. E-procurement implementation rides on knowledge advantage and the goodwill from top management. These factors play a role in the success of e-procurement implementation. These findings echo the World Bank (2004) assertion that e-procurement implementation is affected by commonly low awareness, understanding, or skill in relation to evolving technologies in management.

### **Environmental Factors and e-Procurement Implementation**

The e-procurement does not exist in a vacuum and hence environmental factors play a role in the successful implementation of e-procurement. External legal pressures, industry competition and external stakeholder support play a role in the successful implementation of e-procurement. A supportive legal environment ensures a smooth implementation of e-procurement as opposed to a bottlenecked legal environment. These findings tally with the thoughts of Reddick (2004) who stated that that companies and governments have to overcome existing legislative, regulatory and organizational barriers in order to succeed in the e-procurement implementation. The research findings also agree with the European Union who blamed lack of creative e-procurement laws as hampering e-procurement implementation.

### **Technical Factors and e-Procurement Implementation**

Technical factors including technical compatibility, employee expertise and perceived advantages affect the success of the e-procurement implementation. Incompatible technical architecture slows the operability of the e-procurement infrastructure, slowing down the systems and leads to user frustration. These findings tally with Schoenherr et al (2007) who indicate the the right technological environment is the pre-condition for successful e-procurement implementation in the automobile industry.

### **Presence of legal support**

The inappropriate introduction of e-procurement carries high risks of market fragmentation. The legal, technical and organizational barriers that may result from procurement online are one of the greatest challenges for policy makers (Commission of the European Communities, 2004). Despite that, the Public Procurement Act 2004 (PPA 2004) and ICT Policy of 2003 do not provide adequate legislative framework for the application and harmonization of e-commerce and e-procurement in the country. However, the newly enacted Public Procurement Act 2011 (PPA 2011) has included some provisions mandating PPRA to initiate e-



procurement in the country but they are not adequate enough to fast track the process. For this reason, e-procurement needs legal support on how the exchange of information will be secured, payment system and exchanges of bidding documents harmonized electronically while data confidentiality and authentication maintained in the country. Therefore, the current legal frameworks in the country in terms of laws, regulations and policies have to be changed by the government in order to support the efforts geared towards the adoption of e-commerce and e-procurement in the country. Presence of Legal Support E-Procurement Experts Development Capital Investment on Technological Infrastructure

**Supplier Capability Development Adoption** of E-Procurement in Uganda Public Procurement . For example, the new PPA 2011 and Public Procurement Policy (PPP) that are still on preparation should come up with the mechanism to regulate key activities of procurement such as sourcing, payment and tendering proceeding from manual operation to e-sourcing, e-payment and e-tendering where tender documents will be issued, submitted and evaluated online while maintaining confidentiality, data security and authentication.

#### **Development of experts on e-procurement**

. The implementation of e-procurement techniques requires personnel who are experts in the e-procurement issues at the country level and organizational level both in the procuring entities and the supplier entities. Hence, to be successful in the application of e-procurement at the country level there is a need of having adequate e-procurement experts at PPRA, supplier organizations and PEs who will be in charge of the day to day implementation activities and harmonization of the e-procurement system. The country has inadequate experts on the subject matter; therefore efforts should be taken by the government and the respective entities to train their experts on e-procurement techniques and technologies so that they may become competent and conversant on e-procurement and in return participate actively on the whole process of installing e-procurement infrastructure.

#### **Capital investment on technological infrastructure**

E-procurement application requires good and supportive soft and hard technological infrastructure across the country for it to be effectively applied. To mention a few, there should be stable power supply, undisputed network infrastructure, e-procurement software, adequate servers and backups. A country e-procurement readiness report evidenced that few of these do exist in the country but the Government is trying to make changes such as the installation of the national broadband. Therefore, adequate funds should be set aside in the Government budget that will be specifically utilized for capital investment on e-procurement technological soft and hard infrastructure in the country. Hypothetically, it is believed that there is a direct relationship between supportive technological infrastructure and

the application of e-procurement in the country, hence priorities towards capital investment should be changed and be channeled towards constructing e-procurement technological infrastructure.

In order for e-procurement to be effectively applied in the country, there should be a common system that will be harmonizing the procurement transactions between the buying organizations and the selling organizations. Therefore, both ends of the procurement system should be adequately equipped with the necessary e-procurement technology and techniques. Currently, most suppliers are not well capable of being integrated into the e-procurement in terms of competent personnel and technological well being. Hence, initiative should be taken to develop our local suppliers technologically so that when the right time comes they can be able to access procuring entities inventory reorder levels and stock updates online, obtain requests for quotations and submit them online, receive payments online, review and assent procurement contract online and share other data through EDI.

#### **4.2.1 Findings level of e-procurement adoption**

Different organizations use different approaches in the adoption of information systems. The e-procurement system of adoption among manufacturing national medical stores can be at different levels depending on the number of years since its adoption, past experience, the success or failure in the implementation of such systems and the automation level of activities within the procurement unit.

#### **E - Procurement Adoption Policy:**

National medical stores are expected to develop their e-procurement adoption strategy to guide their implementation. The respondents were asked to indicate whether they have adopted e-procurement systems in their large scale manufacturing national medical stores. From the research data, majority (100%) of the large scale manufacturing national medical stores in Kampala, Uganda have adopted e-procurement. This is an indication that the organizations that participated in this study have knowledge of what e-procurement systems are.

#### **Years of e-Procurement Usage:**

The number of years an organization has used the e-procurement system can determine the assessment index of the system's failure or success. Equally it can also determine efficiency and effectiveness within the procurement systems. It will also influence the level of adoption among several other activities within the procurement unit. The respondents were asked to indicate the number of years that have elapsed since the time their national medical stores had adopted e-procurement systems and the results are as shown in table 2 below.

**Table 7: Years in e-procurement usage**

| Years       | Frequency | percent |
|-------------|-----------|---------|
| 1-5 years   |           |         |
| 6- 10 years |           |         |
| Total       | 30        | 100     |

**Source: primary data 2015**

The findings in table 2 above indicate that majority (72.7%) of the large scale manufacturing national medical stores in Kampala, Uganda have adopted e-procurement systems for duration of 1-5 years. This is an indication that majority of the national medical stores that participated in the study have not adopted information systems for a long time hence don't have a detailed understanding in the usage of e-procurement systems.

### **E-Procurement Adoption Level:**

The level of automation among the key activities in the procurement unit will determine the level of adoption of e-procurement system. The respondents were asked to indicate the extent to which they have adopted e-procurement systems among key activities in the procurement function using a five likert scale (1= Very small extent; 2 = Small extent; 3 = Moderate extent; 4= Great extent 5= Very great extent) and the results are as shown in table 3.

**Table 8 E-Procurement Adoption Level**

| E-Procurement adoption levels                   | N  | Mean | Std. Deviation |
|---|----|------|----------------|
| Advertising tenders online                      | 30 | 3.91 | .910           |
| Online submission of proposals                  | 30 | 3.75 | 1.222          |
| Short listing of suppliers online               | 30 | 3.70 | 1.212          |
| Company staff make requisitions online          | 30 | 3.66 | 1.098          |
| Call for proposals done through company website | 30 | 3.50 | 1.191          |
| Existence of functioning website                | 30 | 3.48 | 1.338          |
| Posting item specifications on company website  | 30 | 3.00 | 1.398          |

**Source: primary data 2015**

From the findings in table 3 above, the large scale manufacturing national medical stores in Kampala were to a great extent (mean  $\geq 3.5$ , with a significant standard

deviation) advertising tenders online, allowing suppliers to submit proposals online, short listing of suppliers online, allowing company staff to make requisition online and call for proposals through company website. This indicates that the large scale manufacturing national medical stores Kampala, Uganda have adopted e-procurement to a great extent. The data agrees with the observations by Croom and Brandon-Jones (2004) who assert that e-procurement systems enable organization to carry out individual or all stages of the procurement process such as searching for suppliers, sourcing, negotiation, ordering and posting of purchase review using internet-based (integrated) information and communication technologies.

On the other hand, the existence of functioning website and posting item specifications online among the large scale manufacturing national medical stores in Kampala have been adopted to moderate extent (mean  $\geq 3.0$ ). This may be attributed to challenges like usage of decades-old equipment and parts whose documentation is paper-based and lacks the digital format necessary for e-Procurement systems as noted by Moore (2003).

There are number of factors that can determine the successful adoption of e-procurement systems. These are the most important factors that a firm needs to pay attention to in their efforts of implementing electronic procurement systems and practices aimed at improving their competitiveness. The respondents were asked to indicate the extent to which they agreed with various factors that contribute to the success of e-procurement among large scale manufacturing national medical stores in Kampala, Uganda using a five likert scale of 1= Very great extent; 2 = Great extent; 3= Moderate extent; 4= Small extent and 5= Very small extent. The results

#### 4.2.3 The findings on different forms of electronic procurement

Do you agree that, these are the main forms of e-procurement in National Medical Stores?

**Table 9: Descriptive statistics on respondents forms of e-procurement**

| Form of e-procurement | Category | Number (Percent) |
|-----------------------|----------|------------------|
| E-sourcing            | SD       | 19 (18.3)        |
|                       | D        | 26 (25.0)        |
|                       | NS       | 16 (15.4)        |
|                       | A        | 32 (30.8)        |
|                       | SA       | 11 (10.6)        |
| E-web based ERP       | SD       | 9 (8.7)          |
|                       | D        | 31 (29.8)        |
|                       | NS       | 24 (23.1)        |
|                       | A        | 32 (30.8)        |
|                       | SA       | 8 (7.7)          |
| E-tendering           | SD       | 13 (12.5)        |
|                       | D        | 37 (35.6)        |
|                       | NS       | 15 (14.4)        |
|                       | A        | 25 (24.0)        |
|                       | SA       | 14 (13.5)        |
| E-reserve auctioning  | SD       | 18 (17.3)        |
|                       | D        | 36 (34.6)        |
|                       | NS       | 16 (15.4)        |
|                       | A        | 31(29.8)         |
|                       | SA       | 3 (2.9)          |
| E-Informing           | SD       | 10 (9.6)         |
|                       | D        | 28 (26.9)        |
|                       | NS       | 44 (42.3)        |
|                       | A        | 22 (21.2)        |
|                       | SA       | 0 (0)            |

Source: primary data 2015

SD = Strongly disagree, D= Disagree, NS= Not sure, A=Agree, SA = strongly agree

## **The forms of procurement**

### **E-sourcing**

While over 90% of businesses do use e-procurement strategies to some extent, most lump e-sourcing in under the terms wider umbrella of meaning: using the Internet to assist in the purchase of goods and services needed by a business. The reality is that e-sourcing is actually a separate category of techniques that focuses primarily on the quality and price of products used in the creation of a business's product. Since for many companies these direct materials make up a sizable chunk of their purchasing budget, it is in their best interest to implement some e-sourcing best practices. After all, one research group concluded that e-sourcing could save businesses in the United States almost \$700 billion a year.

Obviously, e-sourcing can save money, but there are other equally important benefits as well. For example, e-sourcing can improve worker collaboration because these web-based applications can be accessed by all of the departments in a company. So if an RFP is being prepared in order to purchase the direct materials needed for a new project, then all of the teams and departments involved in the project can use the applications to contribute to the RFP. The end result is a clearer, more exact explanation of what the project entails. And because everyone is involved at that level, there is less resistance to the project in later stages.

Another important benefit of e-sourcing is that it does help companies find the ideal suppliers for their materials. Normally it is difficult for businesses to sort through all of the information about potential suppliers and to compare one with another in order to make a final decision. Even judging by proposed cost alone may be difficult because one must take into consideration delivery time, quality of the product, and other factors. E-sourcing applications, however, provide tools which let businesses organize and compare supplier information more effectively.

E-sourcing also encourages the development and use of best practices. Because most of the processes involved in e-sourcing will become templates, successful practices will be easily carried out each time those templates are used. These templates will also be accessible by other areas of the company so they, too, can implement the strategies that have worked well for other departments.

Finally, e-sourcing can improve training and efficiency. The majority of e-sourcing applications available can easily be used as off-line training tools to give employees hands-on experience with the application without jeopardizing the company's actual data. Using these simulations have proven to be more successful at not only teaching employees how to use the software but also in making them feel more comfortable with it. Furthermore, by automating many of the tasks associated with e-sourcing, these applications significantly cut down on the time the processes require. Some

studies indicate that e-sourcing software can reduce the time involved in the procurement cycle by as much as one-fourth while it can also shave up to 15% off the time it takes to get a product out into the market.

To reap these benefits, however, businesses must first develop e-sourcing best practices. These practices include defining and developing a procurement strategy for these direct materials, taking the time to prequalify suppliers in order to minimize the time spent on that area of the process when it comes time to actually make the purchase, establishing contracts for the necessary products in order to save time later, and developing strong relationships with suppliers, particularly those who provide the most key items.

While software can help with all of these areas, the company itself must take the initiative on establishing these practices and following through with them. E-sourcing software can deliver many benefits for a business, include tremendous cost and time savings, but it cannot ever replace a solid groundwork of practices that lay the foundation for a business's success.

### **e- web based ERP**

Enterprise Resource Planning (ERP) often describes a broad set of applications that assist companies in running efficiently and effectively by helping them do everything from track orders to purchase parts to provide customer service. In the late 1990's, ERP projects received a bad reputation because many of them were extremely costly were not well thought out. One well-known company spent over \$100 million on its ERP project only to have such severe problems with the software that revenues fell by almost 20% in one quarter. Thankfully, the ideas behind ERP projects have changed and developers have learned enough from the mistakes of others to have vastly improved the way these systems are implemented today.

One of the biggest mistakes companies made with their ERP projects in the past was over-customization. Instead of finding a model that worked for a particular industry and applying that model of best practices to other companies in that industry, ERP developers wanted to often work from scratch and come up with a company-specific ERP system. While specialization is often an excellent idea in business, over-customization simply made it more likely that mistakes would be made in the finished product. This is what happened in some projects.

Today, more ERP developers are focusing on templates of best practices for certain industries. When a business wants to implement ERP, they simply use that proven-effective model without any additional bells and whistles. Of course there are drawbacks to using one template to cover every company in an industry, but overall

the change has resulted in a reduction in ERP implementation problems and greater project efficiency.

Another common problem many ERP projects used to face was resistance from employees and those that would be working directly with the applications once these applications were live. Many of these people had spent five, ten, even twenty years developing their own systems for doing their job, but when ERP was introduced, they were essentially being told that their way simply wasn't good enough and that they need to adjust. This attitude created resentment and apathy among workers and often caused production and efficiency problems.

ERP implementations are large and now must include all employees; not only in the training aspects but also in preliminary discussions of how a prospective application should work. ERP specialists have come to realize that the key to getting workforces to accept these new business practices is to explain that they aren't simply different but they are better and that they will make their jobs easier in the long run.

Pricing is another pitfall that companies often fall into when implementing ERP systems. Originally, an ERP system's cost was based on how long it took for the applications to be readied and the staff to be trained. Depending on the ERP's developer, the process could last for months and the cost could skyrocket. Millions of dollars were spent on ERP projects that were not completely finished; many of those businesses simply ran out of money and couldn't continue to pay for something that was not done.

Now, however, most ERP implementations involve a contract that sets a specific price and often a specific time table for the project as well. Companies know how much they are going to have to pay upfront, so there are few surprises. Occasionally, additional costs do arise that are outside of the scope of the fixed-cost contracts, however, the price for these is minimal when compared to the costs involved before the safeguards that these contracts offered. By also setting a time line for the work, companies are able to make better plans for their business future. They won't be left hanging around and waiting while the ERP implementations goes on for months or even years.

Before implementing an ERP, company decision-makers need to talk to their workers and get their feedback about the idea in order to minimize future resistance, then



they need to set a budget for the project and sign a fixed-price contract that fits that budget. But to be truly success, they must recognize that what's worked before is most likely to work again.

### **E-tendering**

is the process of sending RFI's and RFP's to suppliers and receiving the responses of suppliers back, using Internet technology. Usually e-tendering is supported by an e-tendering system. Often the e-tendering system also supports the analysis and assessment of responses. E-tendering does not include closing the deal with a supplier. As a matter of fact, e-tendering smoothens a large part of the tactical purchasing process without focusing on the content (i.e. spend category) of that process.

### **E-Informing**

is a form of EP that is not directly associated with a phase in the purchasing process like contracting or ordering. E-informing is the process of gathering and distributing purchasing information both from and to internal and external parties, using Internet technology. For example, publishing purchasing management information on an extranet that can be accessed by internal clients and suppliers is a way of e-informing. This form is also called purchasing intelligence or spend control.

### **E-reserve auctioning**

is the Internet technology based equivalent of reverse auction. Usually e-reverse auctioning focuses on the price of the goods and services auctioned. In most cases, other criteria are neglected during the e-reverse auction. Of course, other criteria can be used in a previous phase in order to determine which suppliers should be invited to join the e-reverse auction. E-reverse auctioning does really close a deal between a buying organization and a supplier, if parties agree on the price.

### **The findings on which E procurement contributes to service delivery in national medical stores**

**Table 10: The extent of E-procurement contribution**

| Statement      | Frequency | Percentage |
|----------------|-----------|------------|
| Lesser extent  | 10        | 33         |
| Greater extent | 20        | 67         |
| Not sure       | 0         | 0          |
| Total          | 30        | 100        |

Source: primary data 2015

The above shows the extent at which e-procurement contributes to service delivery to an organization or national medical stores. 67% were saying that it contributes to the greater extent. Followed by 33% who said that, at the lesser extent with 33% whereas 0 percent were not sure anything about the contribution.

#### **4.5 The relationship between e-procurement and service delivery**

E-business has radically altered the ways in which national medical stores interact with their suppliers. Continued improvements in Internet technology connectivity provide an opportunity to make procurement for goods and services more transparent and efficient. This reminds researchers that e-procurement is not a single application but consists of many different tools. As organizations seek to enhance market efficiencies six forms of e-procurement applications have been noted. Knudsen cites; e-sourcing, e-tendering, e-informing, e-reverse auctions, e-MRO and web-based enterprise resource planning. In addition, e-collaboration is an important enabler. view e-procurement not only as a strategic player in the value chain but as a major driver in the extended supply chain.

Over the last decade e-procurement has emerged as a major component in the Supply Chain Management field. At its most basic level, e-procurement has changed the ways businesses purchase goods. At a strategic level it is anticipated that e-procurement will free purchasing resources from transaction processes to strategic sourcing activities. How the performance of a purchasing department can improve remains uncertain. In many commercial organizations the business case for e-procurement is predicated on being able to deliver a variety of benefits, which include: lower prices, lower transactional costs, better compliance and speedier processing and delivery.

However, recent research has questioned whether e-procurement is really an ugly duckling. In one of the first empirical studies, Carr and Pearson confirmed that strategic purchasing has positive effect on company's financial performance. Encouragingly, national medical stores that do long-term planning and consider purchasing to be strategic are also likely to build long-term cooperative relationships with their key. Electronic commerce (e-commerce) tools provide the opportunity to enhance two elements of procurement process: communication and transaction aspects. Surveys have confirmed that e-commerce tools and IT solutions have an influence on procurement-related processes.

## **CHAPTER FIVE:**

### **DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

This chapter presents a discussion of the findings of the study, conclusions derived, recommendations given and areas of further research based on research findings in chapter four. Research results are discussed according to the objectives of the study in line with the research questions.

#### **5.1 Summary of findings**

The general research objective was to establish the impact of e-procurement on service delivery. The response rate was 94% which is viewed as sufficient to conduct the study. The study established that many of the procurement officers lie in the age group of between 25 years and 35 years. The respondents' highest academic level was mainly degree and that majority of the respondents had stayed in procurement process for a short time of less than 5 years.

The period of stay by respondents is too short to gain advantage of experience in discharging their duties in procurement processes. The research objective one was to find out the factors affecting e-procurement on service deliver. The tally from the data collected indicated that the value of e-procurement affects use of e-procurement in national medical stores being that majority of respondents strongly agreed with the statements.

The finding agrees with Lysons and Gillingham (2003) assertion that national medical stores have made considerable gains as a result of having electronic integration system installed. This is because the use of internet and technology based systems in procurement has led to lower costs and efficiency in the process. The study found out that the benefits above normally drive managers of national medical stores to invest in e-procurement thereby realizing cost saving, improved quality, better relationship with supplier thus registering high profitability.

The research objective two was to the form of e-procurement. The findings confirmed that e-procurement capability is an important determinant of use of e-procurement. This was evident in the strong agreement by majority of respondents. This is in agreement with Kauffman and Kriebel (2008) that the contribution of IT systems depends on other resources, such as people and investments in associated processes. They agreed with these form of e-procurement namely

E-sourcing, E- web based ERP, E-tendering, E-reserve auctioning and E-Informing whereby if national medical stores adopt all these forms of electronic procurement will fasten the level of service delivery in the shortest time possible

The objective three was to determine the relationship between electronic procurement and service delivery. The findings of the study show that procurement contributes to faster delivery of the service to far and near people from different destination hence making the good relationship between the two variable.

### **The findings on the benefit of e-procurement**

From the findings the researcher discusses the benefit e-procurement amongst others being; enhancement of e-procurement solutions of location and making the application independent of locations where it's used hence providing opportunity to establish preferred supplier in maintenance repair and operations. Through web based procurement, firms can easily access information about their competitors as a result: they are able to take faster decisions on how to contain them

Web based procurement is a complementary channel of distribution which gives firms flexibility, control of production and most importantly it gives the ability to be convenient to their customers ,enable companies to decentralize operational procurement process and centralize strategic procurement as a result of higher supply chain transparency, online procuring provides better and larger markets especially for firms that are global therefore as a result , enabling the maximization of profits and sales volume through large scale production, this is so because firms are in a better position to get access to customers they never reached before(widening the sales area of the firm)

The findings also revealed that e-procurement creates efficiency of the existing supply chains, it also makes it possible for firms to satisfy their customers, for example they are to receive their orders on time and this reduces on delayed delivery of goods demanded by them therefore, this creates a positive relationship between the firm, its suppliers and customers. Through the internet, prices can be forced down and set close the marginal cost which makes it easier for customers to choose between heads and increases competition

### **Findings on how Organization is performing with the help of e-procurement**

The findings revealed that there are signs of wider adoption of e-procurement as more firms come forward with their pioneering implementation experiences and more firms take internet enabled supply chain management initiatives in order to improve on the firm performance

Large firms are more likely to use internet technologies to communicate with their customers on order states and to manage the outsourcing of customer's services functions. In another instance smaller firms too are using the internet to collaborate with their suppliers on finished goods, inventory levels and on out stock issues .online e-procurement identifies potential improvements arising from adoption of e-procurement systems as cost performance this is, improved productivity, service quality, consistency and dependability.

### **Findings on the relationship between e-procurement and performance of Organization**

From the previous discussion e-procurement, it was observed that v has a positive impact on the performance of Organization as if facilities low costs along the value chain, helps them to take customer services to new levels, enter new markets plus enhancing existing e-procurement solutions

Findings on the relationship between e-procurement and performance of Organization is that e-procurement applications best suit the firms in achieving intra and inter-firm integration which increases the overall performance of Organization .the fact that firms which buy and sell are under pressure from trading partners to adopt e-procurement in order to improve coordination with other members in the value chain, especially in global production network requires partners to adopt the technology, this directly indicates that there's a relationship between the two variables in other words ,firms are not in better position to perform well if they do not adopt e-procurement applications as a strategy

### **5.2 Conclusions**

The study established that the factors affecting e-procurement implementation in the automobile industry are organizational, managerial, environmental and technical factors. The organizational factors are majorly to do with user involvement and customer interaction. Top management support and knowledge also affect the rate and speed with which users uptake the e-procurement technology. Myriad environmental factors affect e-procurement implementation: legal factors, competition and external support for e-procurement. Technical bottlenecks can retard the speed with which an automobile industry can implement e-procurement. Technical compatibility and expertise of the implementation team are key determinants in the e-procurement implementation.

### **5.3 Recommendations**

From the above conclusions give in the previous chapter, the researcher suggested the following recommendations.

Organization should plan to implement e-procurement systems in order to carry out their operations swiftly. For example using the internet to communicate with suppliers on finished goods, inventory levels and on out of stock issues.

More so, for organization to stay competent, they need to adopt e-procurement. Through this, firms are position to use advanced technological capabilities.

Organization should train their employees on how to conduct business online plus the communities by creating awareness on e-procurement issues for most of them are still illiterate about the concept.

Organisations should facilitate the availability of credit cards and recognize them internationally for smooth business transactions

The law governing business to business commerce crossing over to e-procurement are still under developed for example questions concerning the legality and force of e-mail contracts, role of electronic signatures plus application of copyright laws to electronically copied documents. so the government (ICT ministry) should set adequate security measures to protect data trust issues between buyers and sellers

The research recommends the following with respect to e-procurement implementation:

The modernization of the e-procurement legislative framework. The automobile stakeholders should lobby governments to enact such legislation to ensure adequate insulation in the procurement processes. These laws include those that govern digital signatures, recognition of e-agreements and transactional documentation relating to e-market places. Companies engaged in e-procurement of automobiles should lobby parliament for the enactment of such laws to ensure that the process is well anchored in the laws.

Develop e-suites aimed at standardizing information availability from the suppliers. This will make the supplier selection process more efficient, effective, controllable and predictable. Subject the e-procurement purchasing contracts to a one hundred and eighty degrees shift. This is with a view of ensuring that they are not driven by paper-based thinking and hence ensure workability in web-driven environments and Managers within the automobile industry need to be sensitized on the advantages of e-procurement. This will ensure that they support the drive towards digital purchasing platforms. Companies engaged in automobile e-procurement can also engage in the process of recruiting techno-savvy managers capable of navigating the digital divide and fully optimizing the benefits conferred by electronic procurement.

Develop simplified, consistent, interoperable and secure technology systems to drive the e-procurement functions. Companies should work towards developing uniformity in techno-platforms with respect to transactional systems, e-market search engines and quotation templates.

The paper recommends further research on the impact of other variables such as language barriers, experience curves, cultural factors and digital divides on e-procurement implementation. These factors featured in the literature review research and it would be useful if a detailed study is carried out to establish their impact.

Based on the establishment of factors affecting use of e-procurement in national medical stores, the researcher came up with the following recommendations; national medical stores should optimize benefits of e-procurement by increasing the proportion of expenditure on e-procurement by widening the scope of supplier sourcing thereby justifying use of e-procurement, national medical stores need to increase the e-procurement capability in terms of IT expertise and IT infrastructure injecting regular upgrading of IT system and management of firm to expand the use of e-procurement by incorporating most of e-procurement processes as well as all e-procurement models. The researcher recommends that national medical stores to expand e-procurement models put in use by national medical stores in order to optimize the benefits of e-procurement.

#### **5.4 Suggestion for further research**

Areas for future research

The areas below should be further researched on

The relationship between e-procurement and value chain

The role played by e-procurement in promoting company's profitability?

E- Sourcing and cost reduction of small and medium firms

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## APPENDIX 1

### QUESTIONNAIRE FOR STAFF MEMBERS OF THE NTUNGAMO DISTRICT ON THE IMPACT E-PROCUREMENT P ON SERCVICE DELIVERY

Dear respondent.

The questionnaire below has been designed by a student of procurement Kampala International University for her research on the above topic. The information you are going to give is purely for academic purpose and will be treated and regarded as confidential. Therefore, you are kindly requested to give positive responses to the questions asked below so as to assist the researcher accomplish the task. Your cooperation is highly appreciated.

#### SECTION A: BIODATA

1. What is your gender?

- a) Male ☐ b) Female ☐

2. What age bracket do you belong to?

- a) 21-30 ☐ b) 31-40 ☐ c) 41-50 ☐ d) 51and above ☐

3. State the highest educational level attained.

- a) Diploma ☐ b) Bachelor's degree ☐ c) Master's degree ☐  
d) PHD ☐ e) others (specify).....

4. What post do you hold in the company?

- a) Contract committee member ☐ b) Procurement officer ☐  
c) Evaluation committee member ☐ d) IT officer ☐  
e) Others (please specify) .....

5. For how long have you worked in this company?

- a) Less than a year ☐ b) 1-5 years ☐  
c) 5-10 years ☐ d) above 10 years ☐

## SECTION B: E. PROCUREMENT NTUNGAMO DISTRICT

This section seeks your opinion on e-procurement practices in place. Please tick in the box against which you feel is most appropriate by selecting; ***strongly agree (S/A)***, ***agree (A)***, ***not sure(N/S)***, ***disagree(D)*** and ***strongly disagree (S/D)*** by the boxes provided.

|  | S/A | A | N/S | D | S/D |
|--|-----|---|-----|---|-----|
| 6. The firm implements e-procurement as a strategy due to increased competitor activity.   |     |   |     |   |     |
| 7. E-procurement is still in its early stages of adoption in this company.   |     |   |     |   |     |
| 8. The firm continues to rely on mainly traditional procurement systems even through more advanced technologies are available.         |     |   |     |   |     |
| 9. The firm has faced a number of challenges in implementing E-procurement.  |     |   |     |   |     |
| 10. The firm's procurement staff have the necessary knowledge and experience in information technology systems to handle e-procurement |     |   |     |   |     |

## SECTION C: THE SERVICE DELIVERY.

|   | S/A | A | N/S | D | S/D |
|---|-----|---|-----|---|-----|
| 11. The company develops sets of standards to guide the practice of measuring supply chain service delivery.  |     |   |     |   |     |
| 12. The organization normally develops good systems for tracking customer requests and makes sure these requests get a timely follow-up.                              |     |   |     |   |     |
| 13. As way of building trust and personal relationship with customers and supplies, mechanisms are put in place to encourage smooth flow and exchange of information. |     |   |     |   |     |
| 14. The organization has greatly invested in technology to keep track of its suppliers as a basis for making continuous improvements.                                 |     |   |     |   |     |
| 15. Quality is emphasized as one way of ensuring customer satisfaction in the supply chain.   |     |   |     |   |     |

## SECTION D: THE FORMS OF E-PROCUREMENT

| e-ordering;           | S/A | A | N/S | D | S/D |
|-----------------------|-----|---|-----|---|-----|
| web-based ERP;        |     |   |     |   |     |
| e-sourcing;           |     |   |     |   |     |
| e-tendering           |     |   |     |   |     |
| e-informing.          |     |   |     |   |     |
| e-reverse auctioning; |     |   |     |   |     |