DECLARATION

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FREDRICK S NDEDE
DEDICATION

This work is dedicated to my classmates; David Sang, Soo Selote and William Ong’ondi who encouraged me to join them after they registered and stood by me throughout my studies.

To my dear wife and children, who persevered during the long period that I was away from them. Their sacrifice to ensure that I succeeded is deeply appreciated.

Above all; to my God who stood by me and ensured I did not lack fees for my studies and those of my children. I say a big thank you.
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I am deeply indebted to my supervisors for their guidance, patience and insightful input from the commencement of this project to its completion. I wish also to express my appreciation to the Department of Business Management, lecturers without whose enormous contribution in class sessions, this work would have not been possible.

I have also received support and motivation from several fellow students during class sessions, group discussions and project writing. Their handwork and determination gave me the energy to persevere to the end.

The National AIDS control Council employees who willingly and heartily expended their time and effort to fill in the questionnaires made it possible for me to come up with the research findings.
ABSTRACT

The main objective of the research was to establish factors that affect implementation of electronic procurement system in parastatals under the ministry of special programmes; there is only one parastatal under this ministry; that is National Aids Control Council. A research gap was established where little research has been undertaken to investigate factors affecting the implementation of electronic procurement system, and it is against this background that the project sought to establish the main factors that affect the implementation of the system. It also sought to establish the benefits and challenges encountered by the public sector in their bid to instill electronic procurement system. This study will benefit the Government of the Republic of Kenya being the main user of the rules and processes of the procurement system. It will also help in elimination of the constant focus on corruption since it will bring all the operations in the procurement departments above board. The other beneficiary is the Procurement officers in various departments in the civil service since it will guide them on the way forward as far as the procurement of goods and services is concern thus reduce the possibility of under deals. Public Procurement Oversight Authority will also benefit from this study in that it will consolidate whatever comes out of the research to formulate policies & procedures that will enhance the transparency in the administration of the procurement dockets in the public sector. The researcher also established the benefits and challenges of implementing an electronic procurement system in the public sector. The literature is drawn from different studies and also from authorities who have written on this subject in and outside Kenya. The aim of the review was to establish what other researchers have written regarding the problem being investigated, and if they have been done in line with the objectives under study. The researcher employed descriptive research design, Primary data was collected using a questionnaire, and there after data was analyzed using both quantitative and qualitative methods and presented in form of tables and charts. Majority of the respondents were learned male of between 30-40 years of age who have been in the organization for less than 2 years. Most of the respondents believed that costs associated with the Implementation of e-procurement have a direct impact on the Organizations. All the respondents agreed that training of users and management’s support has a positive impact on the Implementation of the e-procurement system. Training of stakeholders also posed a challenge as they implemented the electronic Procurement system. It was also noted that turnover of the employees’ required continuous training for the incoming staff. Formal recognition backed by legislation of the electronic procurement transactions should be encouraged to accelerate the rate of Implementation of the System within the public sector. Integration of the Organizations system and those of the suppliers, demonstration of the positive impact of the system, and installation of linkages between all Governments agencies should be encouraged for faster Implementation of the e-procurement system in the public sector.
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<td>Electronic procurement.</td>
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<td>MOSP</td>
<td>Ministry of State for Special Programmes</td>
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<td>B2B</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1: Background of the Study

E-procurement is the electronic integration and management of all procurement activities including purchase request, authorization, ordering, delivery and payment between a purchaser and a supplier (Chaffey, 2002). Rayport and Jaworski (2002) refer to e-procurement as a B2B e-commerce application with Web-based functions that allow employees of a buying organization to purchase goods and services and allow suppliers to manage and communicate the fulfillment of the purchase orders submitted. It includes catalogue management, requisition, control and approval, receiving and exception processing, and financials and payment processing.

Thomson and Singh (2001) advocate that e-procurement processes include sourcing of buyers and sellers, a digital catalogue of products, online bidding, ordering, payments, goods dispatch notices (fulfillment), logistics and supply chain management. Businesses buy a diverse set of products and services, ranging from paper clips to computer systems, from steel to machinery. At the broadest level these purchases have been classified by Kaplan et.al. (2000) into manufacturing inputs and operating inputs. Manufacturing inputs are raw materials and components that go directly into the manufactured product or manufacturing process. Manufacturing inputs tend to be vertical in nature, because the finished products they go into are industry specific. They are sourced from industry specific suppliers and distributors, and they require specialized logistics and fulfillment mechanisms. Operating inputs include indirect materials and services that do not go into finished products. These are sometimes called MRO (Maintenance, Repair and Operating) inputs which include industrial supplies, capital equipment, services and travel related goods. With the exception of capital equipment and some industrial supplies operating inputs are generally classified to be horizontal.

Systematic sourcing and spot sourcing of goods and services dominate business purchases and are based on corporate strategic marketplace servicing decisions.
Systematic sourcing is buying through pre-negotiated contracts with qualified suppliers, is relationship oriented and contracts are long term. Spot sourcing is fulfillment of an immediate need, typically of a commoditized item for which it is less important to know the credibility of the supplier (Thomson and Singh, (2001) and Chaffey, (2002) and Christiaanse, et al. (2001)). The primary driver of e-procurement is cost reductions achieved from efficiencies resulting in less staff time spent in searching and ordering products and reconciling deliveries with invoices (Chaffey, 2002). Savings also occur from automated validation of pre-approved spending budgets for individuals or departments leading to less time required for processing each order. Automated ordering, payment, confirmations, delivery and inventory information reduce paper work, costs of paper-based ordering forms, storage space for documents and files and improved information management. Indirect benefits of e-procurement include a shorter cycle time between order and use of supplies, greater flexibility in ordering goods from different suppliers, increased buyer productivity and lower prices through product standardization and consolidation of buyers (Chaffey (2002) and Turban et. al. (2002). While electronic data input has been the most common method for automating procurement in the past, its extent was limited by its substantial cost that made it only accessible to large firms with recurring volume purchases (Pavlou and Sawey 2002). The more ubiquitous Internet, which is also economically accessible to small-scale B2B exchanges, has further advantaged e-procurement.

In order to manage organizations effectively and efficiently every functions of the firm shall be given due considerations. Particularly those functions of the organization taking significant portion of the budget rather require preferential attention. Purchasing is one of the major functions of a given organization in most cases; more than 50% of organizations' budget is spent on purchase of materials and various services. Thus considerable attention given to purchasing would have payoff. As we venture into the twenty first century, the materials function will continue to assume increasing importance in the nations of the industrialized world. So, all mangers should understand the general concepts and problems in purchasing and managing materials. Purchasing is one of the basic functions common to all types of business enterprises. It is basic because no
business can operate without it. Thus, the success of a business enterprise depends on the purchasing executive as it does on the executives who administer the other function of business.

Due to continuing changes in different business environments firms are forced to make their businesses more effective, and minimize costs derived from different business activities. Firms have made e-business initiatives in many industries to better manage their internal business processes and functions and their interfaces with the environment (Wu, Mahajan & Balasubramanian, 2003). Earliest features of electronic procurement are from the 1980s when MRP (Material Requirements Planning) and MRP II (Manufacturing Resource Planning) were a remarkable part of companies businesses (Shoenherr & Tummala, 2007).

In the 2000-century, different business functions like sales and purchasing, have moved to electronic business environment. Electronic business has multiple benefits but it also contains risks which may cause massive harm to business. Electronic procurement is a relatively young research area in scientific literature earlier studies (Kauffman & Mohtadi 2004; Croom & Brandon-Jones 2005; Keiser 2000; Morrison 2009) mostly concentrates on the influences, benefits, and challenges of electronic procurement.

1.2: Statement of the problem

In today’s business world, one important way of enhancing electronic purchasing functions is to benefit from electronic marketplaces and electronic purchasing, Teo and Lai (2009). This means that firms have to abandon their traditional purchasing models and employ new ways of procurement. This can be seen especially in Organizations where (for instance because of the nature of the industry) a systematic procurement has not been an important sector of their business processes. This creates a need to clarify the effects that implementing an e-procurement system cause. By paying attention to both, benefits and problems, it is possible to ensure a successful implementation of an e-procurement system. Just as business must purchase goods and services, they need to keep their plants running and their customers satisfied, so must Governments.
Government procurement is not a task to be taken lightly because all Government procurements must be done within a strict code of laws and rules Carol (2000). The internet has revolutionalized business to business (B2B) purchasing. Information reaches a larger audience more easily, increasing competition among vendors thus driving prices down. For the most part Governments are yet to grasp this phenomenon, instead they use it as a 21st Century bulletin board, offering little more than phone numbers and addresses of department offices, Jerremy Sharrard, "Sizing U.S e-Government", The Forrester Report, (Lambridge, MA: Forrester Research INC, August (2000).

Despite the evident increase of electronic procurement and effectiveness of its implementation, until recently, little research has been undertaken to investigate factors affecting the implementation of electronic procurement system in public sector. It’s against this background that the project seeks to establish the factors affecting, benefits and challenges of implementing electronic procurement system in public sector.

1.3: Objectives of the study.

The general objective of this study was to investigate the factors affecting implementation of electronic Procurement System in the public sector.

1.3.1: The Specific objectives.

i) To determine the effect of costs on the implementation of electronic procurement system in the public sector.

ii) To establish the effect of training of users on the implementation of electronic procurement system in the public sector.

iii) To determine the effect of system integration on the implementation of electronic procurement system in the public sector.

iv) To investigate the effect of legal frame work on the implementation of the electronic procurement system in the public sector.
1.4: Research Questions

i) What effect do costs have in the implementation of the electronic procurement system in the public sector?

ii) How does training of users of the electronic procurement system affect the implementation of electronic procurement system in public sector?

iii) What effect does system integration have on the implementation of electronic procurement in public sector?

iv) How does legal framework affect implementation of electronic procurement system in public sector?

1.5: Significance of the Study

In the 21st century many organizations are implementing e-procurement in the face of stiffening competition and economic downtown to remain relevant. This study is of benefit to the Government of the Republic of Kenya being the main user of the policies and processes of the procurement system. It will help in the elimination of the constant focus in terms of corruption in the public sector and under deals since all the processes will be done above board.

The other beneficiary is the Procurement officers in various departments in the public sector since it going to guide them on the way forward as far as the procurement of goods and services is concern thus reducing the possibility of under deals.

Public Procurement Oversight Authority will also benefit from this study in that it will consolidate whatever comes out of the research to formulate policies & procedures that will enhance the transparency and smooth administration of the procurement dockets in the public sector.

1.6: Scope of the Study

The researcher established the factors which affect the implementation of the electronic procurement system and its benefits in the public sector as an enhancer of Organizations’ purchasing operations and its overall business processes.
CHAPTER TWO

2.0: LITERATURE REVIEW

2.1: Introduction
This chapter concentrates on e-procurement as an enhancer of purchasing operations and different business processes and functions. The objective of this part is to create a theoretical base to the whole project. This chapter works together with the empirical part creating a one tight entity. The literature is drawn from different studies and also from authorities who have written on the subject in and outside Kenya. The aim of the review is to establish what other researchers have written regarding the problem being investigated. It also establishes a knowledge gap which can add into a wealth of knowledge in this specific field. The sources of literature review will include books and journals.

The following areas of study provided a basis for the need to carry out this study, factors affecting implementation of e-procurement, purchasing based on electronic technology, benefits of e-procurement system, challenges of e-procurement system, purchasing theory and E-market place.

2.2: Purchasing theory
The location and structure of purchasing is very dependant on business characteristics. For example, some very large chemical companies have created a separate department for the purchasing of materials and investment goods. Other companies execute the buying of goods/services by small group of specialists, which report directly to the board of directors. (Van Weele, 2000, p. 219)

When describing the role and position of the purchasing function in private companies, the value chain management plays a central role. Dobler and Burt (1996), the term value chain is used to describe the various steps a goods/service goes through from raw material to final consumption. Dobler and Burt considers every firm basically as a collection of primary and supporting value activities that are performed to design,
produce, market, deliver, and support products that are valuable for customers. Dobler and Burt argue that a firm’s value chain and the way in which it performs individual value-activities are a reflection of its business strategy, its approach to implementing its strategy, and the underlying economics of the activities themselves. This explains why there can be explicit differences between organizations with regard to management, structure, strengths etc operating within the same sector. A value chain is composed of value activities and a margin, which is achieved by these activities.

2.2.1: Centralized versus decentralized purchasing

The main advantages of a centralized purchasing structure is that, through coordination of purchasing, better prices, costs, service, and quality from suppliers can be achieved by coordinating purchases and buying higher volumes. Another advantage is that it will facilitate efforts towards product and supplier standardization. Fearon and Leender, 1995). A centralized purchasing structure has potential for savings and decreases the risk for price fluctuations. The disadvantages are that the management of the individual business unit has only limited responsibility for decisions on purchasing. Often the problem is that the business unit managers are convinced that they are able to reach better conditions on their own, and will act individually; and in this way they will gradually undermine the position of the corporate purchasing department. A decentralized structure is particularly attractive to companies that have a business unit structure, where each business unit purchases products that are unique and distinctly different from those of the other units. In this case economies of scale would provide only limited advantages and/or savings. A decentralized structure also provides less bureaucratic purchasing procedures, less need for internal coordination, and direct communication with suppliers. The disadvantages of this structure are obvious: different business units may negotiate with the same supplier for the same products, and as a result arrive at different purchase conditions.

When the supplier capacity is tight, business units can operate as real competitors to each other. Also this allows the power balance to be placed at the advantage of the supplier and it makes sense to adopt a coordinated purchasing approach in order to arrange for a better negotiating position for the purchasing Firm. Further on, a decentralized
purchasing structure gives limited possibilities for building up specific expertise on purchasing and materials. In practice these considerations appear to be decisive when deciding on buying products centrally or otherwise.

2.2.2: Consequences for Purchasing Professionals

The developments described above will also lead to significant changes in the necessary skills and abilities required by the purchasing department. In most large Organizations positions of lead buyers, senior buyers, buyers, and assistant buyers can be found.

Lead buyers (or corporate buyers) are generally focused on very specialized tasks on the strategic level. It is their job to negotiate for large volumes or large investment projects. Their counterparts are often key account managers, who are highly educated and experienced. For this reason lead buyers preferably have a similar educational background, often at university level.

Senior buyers normally have a medium-term planning horizon and a more tactical task. As they have to meet and converse frequently with engineers and other technical specialists they require an adequate technical background, combined with commercial skills. The senior buyers deal mostly with production materials and investment goods. Most of the senior buyers’ time is spent on supply market research, selection of supplier, and preparing and conducting contract negotiations with suppliers.

Buyers/assistant buyers often work at a decentralized level and they are responsible for the materials planning and ordering on an operational level. Here, the buyers/assistant buyers are responsible for calling off the materials required against the annual agreements. Furthermore they monitor and control suppliers on their quality and delivery performance. For this job a secondary educational level will be sufficient. Most important here are personal abilities such as stress resistance and the ability to organize the work effectively.
2.3: Electronic procurement systems

Organizations and their needs are different. This is the reason why procurement cycles vary so much between different corporations. A basic procurement cycle begins from identifying the need, and ends in the phase where identified needs are satisfied. (Baily et al. 2005, 370)

According to Subramaniam & Shaw (2004) big companies spend nearly 30% of their revenues on procurement of non-production goods and services. Procurement of non-production material, for example, office equipment, computers and other material cause problems in the traditional field of procurement. These problems are mostly related to inefficient procurement habits, manual procurement processes, non-strategic purchasing and maverick costs (Subramaniam & Shaw, 2004). Arbin (2008) notes that the biggest reason why companies implement an e-procurement system is the demand to reduce maverick costs and increase compliance in choosing suppliers. Subramaniam and Shaw (2004) find that most of these problems can be eliminated with the help of e-procurement systems. The meaning of these systems is to automate the traditional manual procurement process by using a computer-based software solution. An automated system makes it possible for companies to transfer and exchange real-time data and information using electronic technology. (Subramaniam & Shaw, 2004)

2.4: Factors that affect Implementation of e-procurement system.

Implementation of an electronic procurement system is not a simple process to be completed. According to Hayward (2001) the benefits of electronic procurement are clear and widely recognized but she warns that the system must be implemented correctly or it will never work. Many Organizations don’t understand the meaning of thorough preparation. Mostly, this is the reason why planned actions do not come true and changes in effectiveness and cost reduction stay low. First step towards a successful implementation process is the demand of collaboration and commitment. Because of the lack of collaboration and systematic action, company buyers are wasting time on activities which do not produce or add value (Angeles & Nath, 2007). Keiser (2000) states, that the main reason to the successful use of electronic procurement is
collaboration. He also emphasizes that real-time information for customers is needed and this information comes from the collaboration and commitment of buyers and suppliers. This is the way to successful implementation and use of electronic procurement. Keiser (2000) also reminds that success in e-procurement means integration. He continues by saying: “It is not about having a Web-site, but about working within a customer’s system.” (Keiser, 2000, 80)

Organizations use millions of shillings on information technology systems, because they see IT (Information Technology) as a way to successfully compete in the markets and improve efficiency and productivity (Arbin, 2008). Information technology by its-self will not do all. Tight collaboration between customers, suppliers and companies secure the benefits of IT. Implementing a system demands that buyers and suppliers give support to each other, because otherwise implementation is not possible (Keiser, 2000). Walker & Harland (2008) recognize several factors that influence the implementation of an electronic procurement system:

2.4.1: Cost factors
The size of the organization and the type of the operation has an effect on the implementation of a system. E-procurement is commonly recognized in bigger than smaller organizations. This is because of the costs involved in the implementation of e-procurement system, in terms of start up, and maintenance. The operations of the organization often determine whether e-procurement is needed or not.

E-Procurement is an Internet technology solution facilitating corporate buying using the Internet. Four major e-procurement Internet-based ICT tools are identified (Davila et al, 2003). First, e-procurement software refers to any internet-based software application (traditional EDI e-procurement systems have also migrated to Internet) that enables employees to purchase goods from approved electronic catalogues in accordance with company buying rules, and captures necessary purchasing data in the process. To achieve that, the software uses protocols to automatically route and move through the necessary approval processes all employees' purchase selections of a good found on a supplier catalogue. Internet market exchanges are called the e-procurement systems that bring
together multiple buyers and sellers in one central virtual market space and enable them to buy/sell from each other at a dynamic price, thus for the organization to achieve the e-procurement objectives, there is urgent need to invest in the software and the cost of internet connectivity and usage.

Internet B2B auctions are the third type of e-procurement systems referring to events in which multiple buyers place bids to acquire goods/services at an Internet site, e.g. hospitalitysupplies.com. Last, Internet purchasing consortia gather the purchasing power of many buyers to negotiate more aggressively discounts. Within the context of the plastics industry, Boyle & Alwitt (1999) found that the most often cited procurement use of the Internet was for consummating the transaction and the acquisition of technical advice. However, Roth (2001) recently revealed that top performers conduct more than 20% of their e-procurement transactions online, while they use the Internet for several e-procurement applications such as communicating with vendors, checking vendor price quotes and purchasing from vendors' catalogues.

2.4.2: Training of users
Management of the organization must collaborate and make collective decisions relating to implementation. All decisions affect on e-procurement strategy. Organizational readiness is about decisions, preparation, collaboration and commitment.
Despite the great benefits of e-procurement technologies, their adoption is still at their early stages (Davila et al. 2003). Research on innovation revealed that the characteristics of innovation, as perceived by the adopting firm, can crucially impact on its adoption (Rogers, 1983). Based on a Meta analysis of the technological innovation literature concerning the characteristics of innovations, Tornatzky & Klein (1982) identified relative advantage, compatibility, and complexity as innovation characteristics salient to the formation of the adoption attitude. Relative advantage is the degree to which an innovation is perceived as better and more beneficial than its precursor, compatibility is the degree to which an innovation is perceived as consistent with existing values, needs, and past experiences of the adopter, while complexity refers to the degree to which an
innovation is perceived as difficult to use and implement (Rogers, 1983). Thong (1999) proved that positive perceptions regarding the ICT benefits provided an incentive to adopt ICT. Drew (2003) also concluded that many managers rejected the notion that e-commerce could be useful to their businesses as they had no idea of the potential e-commerce benefits, while Walczuch et al. (2000) revealed that the main barriers to Internet adoption and use are simply managers' concern and perceptions that the Internet would not lead to more efficiency or lower costs.

2.4.3: Supply chain integration factors

E-procurement implementation is about integrating supply-chains. Organization gets the greatest benefits when procurement software is fully integrated with the supply-chain. Thorough integration is the same as an effective supply-chain. The management philosophy of Supply Chain Integration calls for organizations to go beyond traditional functional silos to include cross-functional disciplines and external entities which include customers and suppliers. The process of Supply Chain Integration has four functional areas; namely; demand management, acquisition management, logistics management and disposal management. Supply Chain Integration is a collaborative strategy, which aims to integrate procurement and provisioning processes, by eliminating non-value added cost, time and activities to competitively serve end customers. Kim (2004)

Supply chain management advocates close collaboration between partners via information sharing and information visibility. Advances in information and communication technologies provided the tools needed to achieve such collaboration. Indeed it has given rise to the various e-initiatives that are seen today. In fact new models of e-business are continuously being developed. The presence of various e-business applications or practices presents problems to companies in deciding on the suitable choice of e-business application. Stockdale and Standing (2002) for instance reported on the difficulty faced by organizations in developing strategies, policies and procedures in relation to the e-marketplace selection process. Joo and Kim (2004) iterated that the selection of e-marketplaces is at best industry specific. Although substantial benefits are
enjoyed by companies that adopt e-business, through efficiency improvements, better asset utilization, enhanced customer service and ultimately higher shareholder value (Johnson and Whang, 2002), there are also cases where several problems are encountered as described by van Hoek (2001) and Grieger (2003). Among the contributing factor to these unsuccessful stories is the fact that the supply chain dimension has been ignored by firms adopting the e-business model and vice versa, that is the e-business models or practices developed did not totally embrace the concepts of supply chain management (Smart, 2008; Chopra and Van Mieghem, 2000; Grieger, 2003).

2.4.4: Legal framework factors

Electronic procurement can be a means to support government policies on the procurement of goods and services. In the public domain, electronic procurement makes it possible to support the delivery of public procurement policy. Therefore e-procurement is a policy tool, which requires legal backing to improve transparency and efficiency. Electronic procurement has become one of the most successful of electronic commerce applications. 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. So powerful is the logic of e-procurement adoption for governments that there has been almost no critical evaluation of the organizational issues or implications of implementing these programs. While some authors have noted the practical difficulties in getting the systems operational (Geraint, 2000), there is virtually no discussion of implementation and management models of e-procurement in the government sector or of the consequences of these models for the government, suppliers, the public or for those whose responsibility it is to implement and manage an e-procurement system. In fact, there appears to be little consideration of the management or organizational issues associated with e-procurement. Is it really so straightforward or does e-procurement, as in so many areas of technology introduction, raise issues we have not yet thought about?
A key issue for governments in the design and implementation of e-procurement concerns the extent to which purchasing decisions are devolved rather than centralized and the level at which they are devolved.

There has been considerable debate about how the process of computerization affects the degree of centralization in an organization (George and King, 1991). However, our concern here is not whether e-procurement necessarily leads to centralization (or decentralization), but how governments design, implement and manage an e-procurement system to balance its competing goals and a complex mixture of centralized and devolved processes. Governments have multiple and competing policy agendas with different stakeholders and contexts. Pressures for centralization will coexist with pressures for devolution. E-procurement facilitates the devolution of purchasing decisions to agencies and individual officers through the use of purchasing cards. This is one of the major benefits of the system which allows flexibility but with greater accountability for financial management (The Economist, 2000). Under this approach, procurement decisions can be devolved to line managers or purchasing officers who can determine the appropriate supply through recourse to an established electronic market place, or catalogue of suppliers. Efficiency savings are achieved through more efficient transactions and through easier selection of supplier. Each organization must develop systems to ensure efficiency, and accountability and to prevent fraud. An alternative approach is to centralize procurement in a purchasing unit at agency or central government level. Centralization of procurement allows a procurement unit to determine whole of government or whole of agency purchasing patterns and to 'bundle' or aggregate these purchases and increase the purchasing power of the Government. The Public Procurement and Disposal Act, 2005, have not stipulated any legal framework pertaining to the operationalization of e-procurement in the public sector in Kenya. This is indeed one of the reasons why e-procurement in public sector has not been embraced as in the private sector.

2.5: Purchasing based on electronic technology

Increasing competition, more demanding customer needs and profit maximizing of firms have inevitably led to a situation where traditional business models are not able to fill the
needs of customers and Organizations anymore. Traditional purchasing in today’s environment is an ineffective and expensive way to buy goods and services. Angeles & Ravi (2007) state, that purchasing is one of the biggest expenses in organizations’ overall costs. Especially the purchasing of non-production goods and services is the biggest single expense item for an enterprise (Attaran & Attaran, 2002). Using electronic technology in purchasing operations makes it possible to gain numerous benefits to firms’ business processes and internal functions.

E-procurement is an important part of e-business. E-business is able to create massive new wealth and change the traditional ways of business to a more modern and effective direction. (Knudsen, 2003; Amit & Zott, 2001) The challenge is to recognize all important possibilities and adopt tools of e-procurement, and eliminate those factors that are not key elements for success (Knudsen, 2003). E-procurement only automates procurement (Avery, 2000). Companies are using different Internet trading exchanges (ITE) to automate and streamline their procurement processes (Kalakota & Robinson 2001, 307). Procurement is nowadays more than a traditional support function; it is a tool for creating value for company and customers (Kalakota & Robinson, 2001, 308). This means that companies must define their procurement strategy and goals. According to Knudsen (2003) procurement strategies must be tightly linked with corporate competitive strategies. Knudsen (2003, 720) notes: “By developing a procurement strategy which focuses on the character of its competitive strength, a firm can enhance its market position.” With effective procurement strategy, it is possible for employees to reduce paperwork and fully concentrate on their jobs (Kalakota & Robinson, 2001, 307). 10

Fully automated selection and purchasing of goods is the base goal of e-procurement. Through this goal companies are able to achieve a systematic organization-wide cost reduction. Fast and accurate reports make it possible to manage e-procurement and its processes. The fourth goal is often the most challenging goal for companies to achieve. The risk that unauthorized workers are able to purchase goods and services is very high in many companies of different industries. Procurement cannot be effective if it is not organized, and if employees are able to purchase whatever they want. When companies
Several articles concentrate on the benefits and the challenges associated with e-procurement system. (Angeles & Ravi 2007; Keiser 2000; Knudsen 2003; Murray 2001; Puschmann & Alt 2005) In this thesis these single factors are joined to groups so that the most significant benefits and challenges can be shown at a common level. Moreover, in some articles (Keiser, 2000; Murray, 2001) it is found that the significance of collaboration is irreplaceable for the implementation and must be noticed before and during the implementation process. In general, an idea of implementing an electronic procurement system is a consequence of a need to make business activities more effective. Murray (2001) discovers that electronic procurement produces the biggest value for companies who need to better manage their business processes, reduce costs and strive for greater financial performance.

Implementation of an e-procurement system delivers numerous benefits to companies and their business activities. Many previous studies (Subramaniam and Shaw 2004, Croom and Johnston 2003, Puschmann and Alt 2005) find several single positive effects that e-procurement implementation has. Grounded on these studies, the most important benefits can be gathered into three different groups which are cost savings, supplier management and process and functions efficiency.

2.6.1: Cost savings

Electronic procurement system automates the manual process of procurement. Automation means massive savings in cost structure. Firstly, savings are seen in purchasing of non-production goods and services, like office equipment, travel costs and computers (Subramaniam & Shaw, 2004). Automated Web-based system makes it possible to negotiate better prices with suppliers because the system can provide centralized and accurate visibility of the enterprise-wide procurement information (Subramaniam & Shaw, 2004). Subramaniam and Shaw (2004) also recognize benefits in reduction of transaction costs. These savings are related to suitable product and supplier search, negotiation costs, contracting costs and coordination costs. According to Croom & Johnston (2003) with the help of e-procurement, the cost per transaction is 65 per cent less than the costs per transaction in traditional field of procurement. Puschmann & Alt
(2005) state that e-procurement consolidates sources and controls maverick buying, which means massive cost savings. Electronic procurement offers massive reduction of paper-work and reduces the amount of work that does not add value to company and its customers. (Kalakota & Robinson, 2001, 307)

Controlling the costs is the biggest challenge almost in every industry nowadays. Eliminating costs is also the biggest reason why companies implement an e-procurement system. One of the biggest opportunities to reduce costs is material purchasing. Automated e-procurement systems enable companies to control and manage purchasing decisions and procurement process. This means higher efficiency and more profitable business. (Morrison, 2009)

### 2.6.2: Supplier chain management

One of the biggest improvements that systematic e-procurement brings to business, is more dense group of suppliers. Angeles & Nath (2007) emphasize that the reduction of the amount of suppliers is very important. Through this activity companies can achieve cost savings and better negotiation and contract terms. In other words, e-procurement system demands a small group of preferred-suppliers so that management of different purchasing activities would be effective and e-procurement would work. Efficiency of an e-procurement system is based on real-time information exchange, collaboration and commitment between a company and a tight group of preferred suppliers.

Subramaniam & Shaw (2004) also recognize that with Web-based e-procurement system, companies are able to increase the power of bargaining with suppliers and negotiate better terms and conditions to their contracts. With the help of e-procurement, company employees have direct access to their suppliers systems and data. This means that the employees are able to see different technical specifications, product descriptions, product pictures and price information. (Teo & Lai, 2009) E-procurement also makes it possible for organizations to pursue more complex information exchange with suppliers and improve supplier relationships (Croom & Johnston, 2003).
2.6.3: Process and function efficiency

E-procurement is a way to gain efficiencies in companies' processes and functions. E-procurement literature notices that process efficiency can be increased through internal process efficiencies and automation. (Croom & Johnston, 2003) Using Internet-based technologies enable faster and more effective operational purchasing processes. This helps the employees of purchasing department in letting them to concentrate on more strategic functions. E-procurement brings simplifications to the materials procurement. This reduces the operational workload of buyers because the operational procurement process is decentralized. (Puschmann & Alt, 2005)

Morrison (2009) finds that the benefits of an electronic procurement system can be seen in faster turnaround times and in shipment and delivery times of the product. According to Croom & Johnston (2003) companies achieve process savings when they move from paper-based systems to electronic solutions. Electronic solutions enable electronic orders, invoices and payment. This means fewer errors in transmission. E-procurement brings more availability to business: process lead times are much lower than in traditional purchasing. (Croom & Johnston, 2003)

Efficiency consists of processes, products and inventory savings. Effectiveness means proactive management of key data and high-quality purchasing decisions in the organization. If the traditional procurement processes and functions are too complicated and extremely ineffective, then e-procurement implementation will bring massive benefits and cost savings to company. (Puschmann & Alt, 2005)

2.7: Challenges of Implementation of e-procurement system.

Implementation of an e-procurement system is never an easy process. It is widely acknowledged that companies are increasingly facing different challenges of electronic business (Cagliano, Caniato & Spina 2003). A company has to be aware of the challenges that implementation may include. According to Davila, Gupta and Palmer (2003) implementation of electronic procurement solutions include risks which can be divided in
to four categories. They are internal business risks, external business risks, technology risks and electronic procurement process risks.

2.7.1: Internal business risks
Internal business risks mean that companies are uncertain about having right and adequate resources to successfully adopt an e-procurement system. It is extremely important that an e-procurement system fully works with the purchasing process and the system is completely integrated with the existing information infrastructure. If integration between new procurement system and existing infrastructure fails, it creates more workload and harms the reliability of the organization processes. (Davila et al. 2003)

2.7.2: External business risks
It is not enough that e-procurement software only works with the Organization’s internal systems. It also has to be integrated with customers and suppliers solutions. Information exchange between suppliers and enterprise must be real time-based and visible. Electronic collaboration is not possible, unless this external integration functions. Many suppliers will not do anything unless they get guarantees of future profits. (Davila et al. 2003)

2.7.3: Technology risks
This risk group consists of uncertainty of the widely accepted standards and uncertainty of the comprehensive understanding which system solution is best for the company. If the solution is not widely accepted, the integration of e-procurement solution fails in every stage of the supply-chain. If standards are not widely accepted, clear and open, many of the benefits will not be reached. (Davila et al. 2003)

2.7.4: Electronic procurement process risks
Implementation of electronic procurement software has to be a secure and systematic process. Business activities and production cannot be interrupted when integration is in
action. If the integration process fails, it can cause serious damages to the company’s business and its functions. (Davila et al. 2003)

2.8: E-marketplace

With an increased adoption of the Internet as a medium of business, e-marketplace growth continues at a rapid pace giving purchasers a new range of tools such as online buying and auctioning to exert price-pressure on suppliers. A business-to-business electronic marketplace has several buyers and several sellers. It is an arena on the Internet where a trusted intermediary (e-market) offers trading functionality to registering companies (Swedish Trade Council, 2001).

Businesses have no choice but to participate in e-marketplaces to survive, and to remain or become globally competitive. By March 2000, the automotive, aerospace and forest products industries all created their separate e-marketplaces; in April 2000, utilities, food, airline and rail individual e-marketplaces were established; and in May 2000, the mining and metals, hospitality and electronic industries created another set of individual e-marketplaces (Morgan Stanley Research Report, 2000). In the year 2000, more B2B exchanges evolved from 'dotcom' arrangements in Australia. These are evolving into interconnected marketplaces, particularly industry trading hubs and vertical exchanges with broad functionalities. Industry trading hubs enable improved supply chain integration between buyer and seller if they both have a web-based procurement capability, links between the participant's enterprise resource provisions (ERP) and e-marketplace, catalogue management and value added services capability (Stevenson, 2000).

Kalakota and Robinson (2001) suggest that e-Markets play a major role in industries that have a large market size, fragmented supply chain, unrecognized vendor or product differentiation, high information search costs, high product comparison costs and high work flow costs. E-markets or e-hubs that enable B2B purchases have been categorized by Kaplan et al (2000) as:
MRO (maintenance, repair, operating) hubs, which are horizontal markets that enable systematic sourcing of operating inputs. Operating inputs tend to be low value goods with relatively high transaction costs. Instead of licensing their software to individual Organizations, e-hubs provide an open market on their own servers, giving buyers access to consolidated MRO catalogues from a wide variety of suppliers; Yield managers are horizontal markets that enable spot sourcing of operating inputs such as manufacturing capacity, labour, and advertising. This type of e-hubs add value in situations with a high degree of price and demand volatility, such as the electricity and utility markets, or with huge fixed costs assets that cannot be liquidated or acquired quickly, such as manpower and manufacturing capacity.

Vertical exchange markets that enable spot sourcing of manufacturing inputs and commodities. These online exchanges allow purchasing managers to smooth out the peaks and valleys in demand and supply by rapidly exchanging the commodities or near commodities needed for production. These exchanges maintain relationships with buyers and sellers, making it easy for them to conduct business without negotiating contracts or otherwise hashing out terms of relationships; and Vertical catalogue hubs that enable systematic sourcing of non-commodity manufacturing inputs. They bring together many suppliers at one easy-to-use web site. They can be industry specific, buyer focused or seller focused. The appeal of doing business on the Web is clear. By bringing together a large number of buyers and sellers and by automating transactions, ‘e-markets’ expand the choices available to buyers, give sellers access to new customers, and reduce transaction costs for all the players.

2.8.1: The Role of E-Markets in E-Procurement

E-markets are inter-organizational information systems (intermediaries) that foster market based exchanges between agents in all transaction phases (Baldi and Borgman. 2001). An e-Market offers services that facilitate transactional and service needs. Services such as online auction applications provide sellers and buyers with basic information about products, prices and partners. Weill and Vitale (2001) and Zwass (2000) advocate that e-Markets provide easy search of products and services, product
specifications which reduce communication costs for both buyers and sellers, enable
dynamic pricing based on demand relationships, sales transactions that include payment
and settlement, product delivery, market surveillance for stock market or auction results
and enforcement of proper conduct by buyers and sellers. Benefits to those involved with
operating e-marketplaces include the prospect of equity appreciation and a revenue
stream through transaction and hosting fees and other value added services they provide.
Benefits to buyers of e-market facilitated procurement include efficiency gains from
better pricing of goods and services, cost savings in the administration of procurement
processes, consolidation of buyer's sub entities into a single buying unit, and reduced
costs through purchasing aggregation for some items. Other no quantifiable benefits
include improvements in operations support, employee productivity, visible purchasing
habits of business partners and supplier performance. Reduction in procure to pay cycle
time, streamlined procurement operations, avoidance of costs associated with outsourcing
procurement, and cost savings in invoicing, financing, goods insurance, and delivery are
achieved (McGagh, 2000).

Suppliers on the other hand enjoy the benefits of lower administrative costs, use of
standard online catalogues which can be quickly updated with new product information,
more effective targeting and access to a wider range of buyers, and lower inventory and
warehousing costs (McGagh, 2000). Other opportunities include lower marketing, selling
and service costs, an expanded product and service offerings, improved cash flow
through improved inventory turns and accounts receivables, pull versus push orientation
with buyer organizations, a more detailed insight into a buyer's purchasing needs, and
immediate responsiveness to a buyer's needs and virtual product or service bundling.
However, for each e-marketplace participant, the benefits will vary according to the
participant's position. As buyers go to the e-marketplace for e-procurement, suppliers
may not have any choice but to join in. Most suppliers are also buyers; therefore net
effect is an increased participation in e-enabled procurement. As Australian organizations
move to conduct purchasing online, the need for apt business models to endorse e-
procurement for different businesses are required.
2.9: CONCEPTUAL FRAMEWORK

Figure 1.1 Conceptual Framework

Independent Variable

- Costs
- Training of users
- Supply chain integration
- Legal framework

Dependent variable

Electronic Procurement system.

**9.1: Costs**
The referred costs are the start up costs, infrastructure costs and maintenance costs. These costs are huge depending on the size of the Organization.

**9.2: Training of users**
The training referred here is that of the users of the e-procurement for smooth implementation of the system in the public sector.

**9.3: Supply chain integration**
The supply chain integration referred here is the Organization’s system integrates well with that of the suppliers and also the internal system integration.

**9.4: Legal framework**
The legal framework here is legal frameworks that support and recognize the use of electronic system as evidence of contractual obligations.
CHAPTER THREE

3.0: RESEARCH METHODOLOGY

3.1: Introduction
This chapter defines the design of the study and the research method, which was used to get responses from the target population. It further highlighted data collection procedures including data collection instruments that were used. The chapter concludes with highlighting how data was analyzed.

3.2: Research Design
This study utilized descriptive survey design. According to Cohen et al. (1992), survey design gathers data at a particular point in time with an intention of describing the nature of existing situation and determining the relationships that exist between specific events. Kombo and Tromp (2006) notes that the major purpose of descriptive survey is description of the state of affairs as it exists. The Design was appropriate to the study as it seeked to answer questions concerning the current e-procurement status in the public sector.

3.3: Target Population
The target population of this study was all the staff of the National AIDS Control Council. Warwick & Kerlinger, (1975) assert that the main factor considered in determining the sample size is the need to keep it manageable enough, this will enable the researcher to derive from it detailed data at an affordable price in terms of time, finances, and human resource. Besides, (Kerlinger, 1973) asserts that sampling is taking any portion of the population or universe as a representative of that population or universe.

3.4: Sample size and sample Design
The sample population of this study was all the Twenty Employees working in the Finance department of the National AIDS Control Council. There are five employees in the procurement Division and fifteen in the Accounting Division. The researcher used census to collect data because it was a purposeful sampling due to the fact that
information on e-procurement is considered confidential and is available only to the said staff.

Sampling is taking any portion of the population or universe as a representative of that population or universe (Kerlinger, 1973). The researcher used purposive sampling to specifically select National AIDS Control Council because of the amount of funding received by the Organization on behalf of the Government of Kenya from the Donor community thus the need to manage the said funds well to the satisfaction of the Donor community.

3.5: Data Collection

Primary data was collected using a questionnaire that was administered to all staff in Procurement and Accounts Divisions of the National AIDS Control Council. The questionnaire used in this study contained a mix of open and closed ended questions, which allowed the respondents freedom in answering questions and the chance to provide in depth responses. Interviews were also used especially to allow the researcher to be able to collect accurate data and improve the response rate.

3.7: Data Analysis and Interpretation

Data was analyzed using both quantitative and qualitative methods. Quantitative analysis involved use of statistical techniques to describe, analyze and communicate research findings that included use of mean, mode, median, frequency distribution diagrams, tables and charts. On the other hand Qualitative analysis made use of non statistical techniques to summarize and communicate data. The analyzed data was presented using Bar Charts, Pie charts and Graphs. Other researchers (e.g. Terer 2004) have used both to analyze data with success.
CHAPTER FOUR

4.0: DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1: Introduction

This chapter describes the research results. Research results include benefits and challenges that implementation of an electronic procurement system would bring to Public Sector. Some of the words in this chapter are highlighted because the researcher has tried to emphasize those processes and functions to which the recognized factors that affect the Implementation, benefits and challenges of electronic procurement are directed to in the Public Sector.

Research material consists of twenty questionnaires by the employees of the National AIDS Control Council. Fifteen of the respondents coming from the Finance division while five came from the Procurement Division. The meaning of the interviews was to clarify what kind of positive and negative effects implementation of an electronic procurement system would cause to the Public sector's business activities. Collected empirical material was enough to show the significance of an e-procurement system to Public Sector.

4.2: RESPONSE RATE

Table 4.1 Response rate

<table>
<thead>
<tr>
<th>Target</th>
<th>Response</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: The Author (2011)

There was hundred per cent (100%) response rate because the researcher administered the questionnaires to the respondents.
4.3: EFFECTS OF COSTS ON IMPLEMENTATION

Table 4.2 Effects of costs on implementation

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2011)

The researcher sought to know the effect of costs on the Implementation of e-procurement and the responses from the respondents were; Eighty five per cent (85%) agreed that costs affect the Implementation of the E-procurement while Fifteen per cent (15%) did not believe that costs affected the Implementation of the e-procurement system in the public sector. This therefore showed that costs are the major impediment on the Implementation of the e-procurement system in the Public Sector. The costs referred are associated with acquisition of the necessary equipments, tendering, Licensing, Maintenance, training of users, Advertisement, Security of catalogue and other infrastructure. They are seen as the main hindrance to the Implementation of electronic Procurement system in the public sector due to the magnitude involved. There is also the cost from change of trainers by the training Organization resulting in time lost thus a delay in the completion of the training of users and therefore cost to the Organization.

4.4: EFFECT OF TRAINING OF USERS

Table 4.3 Effects of training of users

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2011)
On the effect of training of users on the Implementation of e-procurement; all the respondents agreed that training of users has a positive impact on the Implementation of the e-procurement. They also noted that turnover of the employees’ required continuous training for the incoming staff so that there would be continuation of the work being undertaken. The training required is because the e-procurement system is sensitive and need staff that is conversant with the system in terms of operating, pass wording and general day to day operations of the system for effective communication with the suppliers. It was also noted that both suppliers and the Organization were not in the same Information Technology (IT) platform therefore Implementation of the system faced a challenge which can be addressed by training both the Organizations’ and suppliers staff operating the system thus will eliminate the fear of change.

4.5: EFFECT OF SYSTEM INTEGRATION ON IMPLEMENTATION.

4.5.1: Integration with finance module

Table 4.4 Integration with finance module

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2011)

Fifty per cent (50%) of the respondents agreed that the procurement module integrates that of the Finance while Fifty per cent (50%) felt that the two modules do not integrate well. From the responses it is noted that most of the staff using the two systems need to
be trained so that they can operate the system without problems. The reason for training of the users on the integration of the two systems is because the data generated from procurement is used by the Finance section in effecting payments to the suppliers and therefore need to be conversant with the system to avoid making mistakes. The employees operating the two systems should be able view all the documents in the system and generate various reports from the data in the system hence the need for training of users of the system.

4.5.2: Integration with Supplier’s module

Table 4.5 Integration with suppliers module

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>Not sure</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2011)

On the Organization’s system integrating with that of supplier’s, the responses from the respondents were; Thirty per cent (30%) agreed that there is feasible integration between the Organization’s system and that of the suppliers, Sixty five per cent (65%) felt that the integration was not feasible and the remaining five per cent (5%) were not sure if there was any integration at all. This means that the integration of the Organizations e-procurement system and that of the suppliers need to be enhanced in terms of Infrastructure and also training of both the Organization’ and that of the suppliers staff using the systems for effective and efficient communication.
On whether legal framework contributes positively to the Implementation of e-procurement, Eighty per cent (80%) of the respondents agreed while the Remaining twenty per cent (20%) believed that Legal Framework did not contribute positively to the Implementation of the e-Procurement System in the Public sector. The respondents believed that the major hindrance to the Implementation of the electronic procurement system in the public sector is the legal environment surrounding e-procurement which needed strengthening to facilitate the acceptance of its use in the public sector. Government should spearhead and issue policy directive to allow the use of electronic procurement system across all the Departments of Government and also to be on the lead in recognizing data generated from the e-procurement as usable elsewhere even in the courts of Law as evidence. It also means that the Government should be in the forefront in formulating Laws, Guidelines and Procurement manuals to be used with the aim of promoting integrity and public confidence in the procurement system. The respondents felt that the political class should be sensitized to pass legislation that support the use of e-procurement and also to give political support to its use so that Implementation can be realized.
CHAPTER FIVE

5.0: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1: SUMMARY OF FINDINGS

Majority of the respondents were learned male of between 30-40 years of age who have been in the organization for less than 2 years.

Most of the respondents believed that costs associated with the Implementation of e-procurement have a direct impact on the Organization. All the respondents agreed that training of users and management’s support has a positive impact on the Implementation of the e-procurement system.

Training of stakeholders also posed a challenge as they implemented the electronic Procurement system. They also noted that turnover of the employees’ required continuous training for the incoming staff. Various suggestions were given on how to overcome challenges of e-procurement, among them being: Government should spearhead and issue policy directive to allow the use of electronic procurement system across all the Departments of Government. Government to be on the lead in recognizing the data generated from the e-procurement as usable elsewhere even in the courts of Law as evidence, introduce independent transparency platforms to be used effectively in preventing corruption. Laws, Guidelines and Procurement manuals should be generated and enacted through the participation of all the stakeholders. The respondents also felt the need to sensititize the stakeholders through successful pilot projects in the Implementation of the e-procurement system in the public sector. Also the respondents were of the view that Government should encourage paperless transactions which will give e-procurement the much needed support on its Implementation. There is also need to train all the procurement officers in all the Departments of the Government so that Implementation of the e-procurement system in the public sector can be a reality. The respondents felt that the political class should be sensitized to pass legislation that support the use of e-procurement and also to give political support to its use so that Implementation can be realized and the need to eliminate Government bureaucracies for the Implementation of e-procurement to be successful in the public sector.
All the respondents agreed that government bureaucracy contributes to non-implementation of the e-Procurement in the public sector. Costs were found to have an effect on the implementation of e-procurement and the respondents felt that costs associated with tendering, licensing, maintenance, training of users, advertisement, security of catalogue and other infrastructure were the main hindrance to the implementation of electronic Procurement system in the public sector. Also, change of trainers by the training organization would result in time lost thus a delay in the completion of the training of users.

Formal recognition backed by legislation of the electronic procurement transactions should be encouraged to accelerate the rate of implementation of the System within the public sector. Organizations should train their own trainers to improve on the implementation of this system; further social audits should be carried out to promote public accountability and public involvement in the design, methods and bidding. Government documents, Users' awareness, advocacy of the benefits and challenges, integration of the Organizations system and those of the suppliers, demonstration of the positive impact of the system, and installation of linkages between all Governments agencies should be encouraged for faster implementation of the e-procurement system in the public sector.

5.2: CONCLUSION

The research revealed that majority of the people involved in e-procurement implementation had a good knowledge of the system and that government bureaucracy greatly affects the e-procurement implementation alongside the costs involved. Training of stakeholders also posed a challenge as they implemented the electronic Procurement system. They also noted that turnover of the employees' required continuous training for the incoming staff.
Various suggestions were given on how to overcome challenges of e-procurement, among them being; Government should spearhead and issue policy directive to allow the use of electronic procurement system across all the Departments of Government. Government to be on the lead in recognizing the data generated from the e-procurement as usable elsewhere even in the courts of Law as evidence, introduce independent transparency platform to be used effectively in preventing corruption. Laws, Guidelines and Procurement manuals should also be made available to all stakeholders of the system.

5.3: RECOMMENDATION

The government should embrace and support the e-procurement implementation as it has positive impact on the overall operation of the procurement process. It saves on time and cuts down on the costs associated with the procurement of goods and services by Government Institutions as this constitute a large component of the Organization’s expenses. It will also eliminate possible corruption practices as there will be minimal conduct of persons involved in the procurement of goods and services and those of the suppliers of the same. It further increases the efficiency and effectiveness of the manpower involved in the process of securing goods and services.

5.4: SUGGESTED AREAS FOR FURTHER RESEARCH

The reasons for low Integration between e-procurement systems of the Organizations and that of the suppliers and challenges faced by the suppliers in trying to integrate the two systems.

Effects of adopting e-procurement legislation on cost reduction, efficiency and effectiveness of the electronic procurement system.
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Appendix I: Research Questionnaire

Part 1: Introduction letter

Dear Respondent,

I am an MBA student at the school of Business, Kenyatta University. I am currently undertaking my research project entitled “Factors affecting implementation of e-procurement in the Public sector”

The attached Questionnaire is for gathering data, which will be useful in the above mentioned research.

You have been selected as one of the respondents in this study. I therefore request you to kindly facilitate the collection of the required data by answering the questions herein.

Please note that the information sought is purely for academic purposes and will be treated with utmost confidentiality.

I look forward to your co-operation.

Yours faithfully,
Part 2: Questionnaire.

1. Please answer the following questions in the spaces provided by ticking where appropriate.
   a) Gender: Male [ ] Female [ ]
   b) Age in years: 20-30 [ ] 30 – 40 [ ] 40-50 [ ] over 50 [ ]
   c) Education: Secondary: [ ] Tertiary: [ ] University: [ ]
   d) Division:______________________________________________________________
   e) Duration employed in the Organization: -------------------Years.

2. a) Do you think costs affect the implementation of e-procurement in your Organization?
   Yes [ ] No [ ]
   b) If your answer to (a) above is yes, please list the cost that you think affect the implementation of e-procurement in public sector.
      i) ........................................................................................................
      ii) ........................................................................................................
      iii) ........................................................................................................
   c) Do you feel there were adequate preparations before introduction of electronic procurement system in your Organization?
      Yes [ ] No [ ]
   d) Name any challenge encountered while introducing the e-procurement system in your Organization;
      ........................................................................................................
      ........................................................................................................
      ........................................................................................................

3. a) Do you think training of users of electronic procurement system will have an impact on the implementation of the system in your organization?
b) If your answer to the Question 3 (a) is yes, Please highlight the kind of impact that result from the training.

   Positive ☐   Negative ☐

c) Do you think managements' support is a factor to consider in the implementation of e-procurement in the public sector?

   Yes ☐   No ☐

4. a) In your opinion, do you belief that supply chain integration will impact positively on the implementation of electronic procurement system in the public sector?

   Yes ☐   No ☐

b) What is the level of integration between e-procurement system and other structures especially the finance modules in your organization?

   Fully ☐   stand alone ☐

c) Is e-procurement system module integrated with that of the suppliers system?

   Yes ☐   No ☐

d) If your answer to 4© above is yes, how would you describe the level of integration?

   Fully ☐   Partial ☐

5. a) Do you think in your opinion that legal framework will contribute positively in the implementation of electronic procurement in the public sector?

   Yes ☐   No ☐

b) If your answer to Question 5 (a) above is No, do you belief Government bureaucracies contribute to non implementation of e-procurement in public sector?

   Yes ☐   No ☐
c) What do you think can be done to overcome the limitation cited in 5 (b) above to have the electronic procurement system implemented in public sector smoothly?

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6. What other suggestions would you give to improve the rate of electronic procurement system implementation and management in the public sector?

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