

Adoption of E-Procurement Strategy and Procurement Performance in State Corporations in Kenya (A Case of Kenya Revenue Authority)

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Abstract

E-procurement is the use of information technology in managing the procurement process in the organization with an aim of improving the procurement process. The study is aimed at determine Role of E-procurement strategies in enhancing procurement performance in state corporations in Kenya with reference to Kenya Revenue Authority. The study focused on the management and activities of the staff of Kenya Revenue Authority, Times Towers, Haile Sellasie Avenue Nairobi and will include the staff from relevant Departments in the Organization. The researcher adapted a descriptive research design as there are variables which cannot be quantified but can only be described in descriptive statistics. Through random stratified sampling method the researcher selected 45 respondents out of total of the 90 population of the staff from relevant Departments and will stratified into procurement management staff, Stores management staff, Operations and management Department staff in the organization. In addition, 20 suppliers were purposively selected to participate in the study. Primary was collected through administering of questionnaires to the respondents. Quantitative and qualitative techniques of data analysis was used to analyze Data and included the use of SPSS version 21 data analysis methods and the findings presented through charts, tables and graphs for simple understanding of the findings. From the findings the study, conclusions were drawn and recommendations made on the implementation of Electronic procurement at Kenya revenue authority. Findings of the study indicate that electronic communication positively influenced procurement performance in Kenya Revenue Authority as it leads to instant responses and real-time information. The purpose of e-procurement is to allow the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues. The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon. The findings also show that electronic order processing positively influenced procurement performance in Kenya Revenue Authority. Studies have shown that companies have found a lot of benefits from their e-procurement projects which include, but are not limited to: process efficiencies amounting to annual savings, ability to link directly into existing systems, such as ERP, reductions seen in lead times within the procure-to-pay cycle. The findings also indicate that self-invoicing on behalf of clients can add to the bottom line, month-end reconciliation can end the problem of the wrong items being ordered or the wrong price being offered as business processes have been streamlined and all are working off the same catalog. The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organizations is made easier, faster and cheaper. Level of customer service influenced procurement performance in Kenya Revenue Authority. An organization to be truly effective, every single part of it, each department, each activity and each person and each level must work properly together, because every person and every activity affects and in turn is affected by others. Cost of E-Procurement positively influenced procurement performance in Kenya Revenue Authority. The amount of money that the organization saves when it adapts e-procurement cannot be over looked by any organization that is out to reduce its operation overheads. Proper use of information technology in an organization coupled with training of staff in systems operations can highly reduce the cost of operation in an organization.

Keywords: E-procurement strategy, Procurement performance, State corporations, Electronic communication, Electronic order processing, Customer service level, Cost of E-procurement

INTRODUCTION

Background of the Study

E-procurement (electronic procurement, sometimes also known as supplier exchange) is the business-to-business or business-to-consumer or Business-to-government purchase and sale of supplies, Work and services through the Internet as well as other information and networking systems, such as Electronic Data Interchange and Planning. Typically, e-procurement Web sites allow qualified and registered users to look for buyers or sellers of goods and services. Depending on the approach, buyers or sellers may specify costs or invite bids. Transactions can be initiated and completed. Ongoing purchases may qualify customers for volume discounts or special offers.

E-procurement software may make it possible to automate some buying and selling. Companies participating expect to be able to control parts inventories more effectively, reduce purchasing agent overhead, and improve manufacturing cycles. E-procurement is expected to be integrated into the wider Purchase-to-pay (P2P) value chain with the trend toward computerized supply chain management. (Martin, 2006).

E-procurement and the use of computers in procurement is gaining grounds and becoming more popular in today's business. According to Gerald and Joan (2009), modern business state that for any business firm to succeed they must embrace and incorporate Information Technology into day-to-day running of the enterprise. This reason coupled with many other positive effects has prompted many companies both locally and all over the world including Uniform Distributors Limited to adapt and implement IT in its procurement process and overall running of the business.

Madaney (2000) indicated that companies in Kenya have not been able to keep pace with global and technological changes to the world today, and therefore there was need to put more research and allocate more resources towards technological improvements and advancement. The business world is moving very fast that it is important that even companies in Kenya change with the changing times.

Using Internet technology to buy goods and services from a number of known or unknown suppliers, e-informing: Gathering and distributing purchasing information both from and to internal and external parties using Internet technology, e-market sites: Expands on Web-based ERP to open up value chains. Buying communities can access preferred suppliers' products and services, add to shopping carts, create requisition, and seek approval, receipt purchase orders and process electronic invoices with integration to suppliers' supply chains and buyers' financial systems (Jessop, 2006).

Procurement refers to the use of Internet-based (integrated) information and communication technologies (ICTs) to carry out individual or all stages of the procurement process including search, sourcing, negotiation, ordering, receipt, and post-purchase review (Croom and Brandon-Jones, 2004). While there are various forms of e-Procurement that concentrate on one or many stages of the procurement process such as e-Tendering, e-Marketplace, e-Auction/Reverse Auction, and e-Catalogue/Purchasing, e-Procurement can be viewed more broadly as an end-to-end solution that integrates and streamlines many procurement processes throughout the organization.

The e-procurement value chain consists of indent management, e-Tendering, e-Auctioning, vendor management, catalogue management, Purchase Order Integration, Order Status, Ship Notice, e-Invoicing, e-Payment, and contract management. Indent management is the workflow involved in the preparation of tenders. This part of the value chain is optional, with individual procuring departments defining their indenting process. In works procurement, administrative approval and technical sanction are obtained in electronic format. In goods procurement, indent generation activity is done online (Puschman, 2005). Continuous Technological Development and improvement of procurement process through the use of computers are emerging as vulnerable factors in the development of sustainable competitive advantage to enhance performance in the supply chain. In modern business world, the technological know-how is more advanced than just selling and buying in retail operation. Researchers have focused their attention towards improving retail merchandise services by offering a good integration between purchasing, the retail merchandise services and the customers to offer convenience and high customer satisfaction coupled with operational efficiency and competitive advantage (Maniam, 2005).

Global Perspective of E-procurement Strategy

Over the last 40 years, while private and public sector organizations have been utilizing Information Technology (IT) systems to streamline and automate their purchasing and other processes, it is only in the past decade that e-Procurement systems have attracted attention. While there is debate about how recently e-Procurement has emerged. (Dai and Kauffman, 2001; Koorn, Smith and Mueller, 2001), there is no doubt that the use of the Internet in e-Procurement provides several advantages over earlier inter-organizational tools. For example, Electronic Data Interchange has been providing automated purchasing transactions between buyers and their suppliers since it was launched in the 1960s.

Enterprise Resource Planning (ERP) followed in the 1970s, and then came the commercial use of the Internet in 1980s. It was only in the 1990s that the World Wide Web - the multimedia capability of the Internet - became widely enabled and provided the essential resource for the automation of procurement (OGC, 2002). According to Koorn, Smith and Mueller (2001) there are three types of e-Procurement Systems: Buyer e-Procurement Systems, Seller e-Procurement Systems and Online Intermediaries.

While various e-Marketplaces have been launched based on the Enterprise Portal philosophy, the implementation of e-Procurement systems usually consists of two technologies within the Enterprise Application philosophy: a workflow system integrated with an e-Procurement application that supports requisition to payment; and the electronic catalogue that lists suppliers' items and prices over the Internet. Within these two philosophies, there are again two different approaches that the public sector agencies have used for implementation of e-Procurement: an end-to-end e-Procurement solution (the "big bang" approach), and the

incremental implementation (Pan and Parkes, 2006).

Using Internet technology to buy goods and services from a number of known or unknown suppliers has improved the vendor process in Australia with much improvement being realized on the part of , e-informing: Gathering and distributing purchasing information both from and to internal and external parties using Internet technology, e-market sites: Expands on Web-based ERP to open up value chains. Buying communities can access preferred suppliers' products and services, add to shopping carts, create requisition, and seek approval, receipt purchase orders and process electronic invoices with integration to suppliers' supply chains and buyers' financial systems (Jessop, 2006). Gupta and Palmer (2003), using a survey of 168 US public and private sector organizations, indicate that e-Procurement technologies will become an important part of supply chain management and that the rate of adoption will accelerate as the adopters share their experiences of success factors and perceptions of low risk. Similarly, Barua, Konana, Whinston and Yin (2001) identified e-Procurement as the element of e-business most contributory towards the e-Business operational excellence of large corporations. There is strong consensus among researchers and practitioners regarding the strategic importance of developing efficient purchasing techniques to increase transparency and fairness, reduce corruption, ensure competitiveness and reduce costs. An increasing number of government authorities are adopting e-procurement solutions to reap the above stated benefits (Panayiotou *et al.*, 2004).

A study done by Basheka, Oluca and Mugurusi (20012) the adopting new approaches for public procurement efficiency: critical success factors (CSFs) for the implementation of e-procurement in Uganda's public sector confirm that in Uganda's context, the major CSFs for e-procurement include: careful involvement of suppliers; systematic risk management approaches; systematic redesign of organizational processes; use of experienced consultants; careful selection of software providers. We suggest policy and managerial implications in the adoption of e-procurement.

The five critical success factors identified were: employees and management commitment to success of adoption; reliability of information technology and supplier performance; monitoring the performance of e-procurement systems; user acceptance of e-procurement systems and top management support. The challenges established are: resistance to change from employees, lack of e-procurement approval by company board, existence of old IT equipment among the firms that need overhaul and lack of managerial support. Large scale manufacturers in Nairobi need to incorporate all the e-procurement activities into the system; they need to find out ways of encouraging employees to make use of e-procurement systems as well as find ways of addressing the factors that are critical to the success of e-procurement. This will enable them to improve adoption of e-procurement (Mauti, 2013).

Local Perspective of E-procurement Strategy

Public procurement has been a thorn in the flesh in ensuring fairness in expenditure of public funds in Kenya to procure goods and services leading to establishment of anti-corruption authorities to tackle this menace with little success. Leading countries in Europe and Asia have successfully implemented central e-procurement system for procuring goods and services in for the public sector with great success. The use of Electronic procurement in Kenya introduces a new era to public procurement by ending the manual procurement challenges the country has experienced in the past. He said the IFMIS system is now well established having been rolled out to MDAs and Counties. IFMIS is at the centre of government financial management in areas of planning, budgeting, expenditure management and procurement among others.

There is strong consensus among researchers and practitioners regarding the strategic importance of developing efficient purchasing techniques to increase transparency and fairness, reduce corruption, ensure competitiveness and reduce costs. An increasing number of government authorities are adopting e-procurement solutions to reap the above stated benefits (Panayiotou *et al.*, 2004). E-procurement is the process of purchasing goods and services electronically and can be defined as the use of integrated (commonly web-based) communication systems for the conduct of part or all of the purchasing process; a process that may incorporate stages from the initial need identification by users, through search, sourcing, negotiation, ordering, receipt, payment and post-purchase review (Presutti,2003). The public procurement in the Kenyan has been undergoing reforms starting with the Public Procurement and Disposal Act 2005 that saw the creation of Public Procurement Oversight Authority. The next step was the implementation of e-procurement for the public sector. According to e-government strategy paper 2004, e-procurement was one of the medium term objectives which were to be implemented by June 2007, but the process has been very slow. The manual processes are costly, slow, inefficient and data storage and retrieval poor.

E-Procurement in State Corporation

Public sector organizations use e-procurement for contracts to achieve benefits such as increased efficiency and cost savings (faster and cheaper) in government procurement and improved transparency (to reduce corruption) in procurement services. E-procurement in the public sector has seen rapid growth in recent years. Act 590 of

Louisiana's 2008 Regular Legislative Session requires political subdivisions to make provisions for the receipt of electronic bids. E-procurement in the public sector is emerging internationally. Hence, initiatives have been implemented in Singapore, UK, USA, Malaysia, Australia and European Union. E-procurement projects are often part of the country's larger e-Government efforts to better serve its citizens and businesses in the digital economy. For example, Singapore's GeBIZ was implemented as one of the programmes under its e-Government master plan. Public procurement has been a thorn in the flesh in ensuring fairness in expenditure of public funds to procure goods and services leading to establishment of anti-corruption authorities to tackle this menace with little success. Leading countries in Europe and Asia have successfully implemented central e-procurement system for procuring goods and services in for the public sector with great success.

Many public organizations have adapted the use of computers in managing their procurement process realizing many benefits. In Tanzania the e-procurement system adapted by the government institutions, enables e-checking and monitoring of procurement processes; It is a web-based system for online submission of annual procurement plans and reports on implementation of the plan to PPRA by procuring entities; Requires Internet, computers and IT skilled user. The public procurement in the Kenyan has been undergoing reforms starting with the Public Procurement and Disposal Act 2005 that saw the creation of Public Procurement Oversight Authority. The next step was the implementation of e-procurement for the public sector. According to e-government strategy paper 2004, e-procurement was one of the medium term objectives which was to be implemented by June 2007, but the process has been very slow. The manual processes are costly, slow, inefficient and data storage and retrieval poor (Odongo, 2012).

Amin (2009) admit that any organization that does not adapt e-procurement in its buying process in the organization is disadvantaged and cannot compete effectively in the ever increasing competitive world. According to Wilson (2002), E-procurement is the business-to-business purchase and sale of supplies and services over the Internet. An important part of many B2B sites, e-procurement is also sometimes referred to by other terms, such as supplier exchange.

Profile of Kenya Revenue Authority

The Kenya Revenue Authority (officially abbreviated as K.R.A.) is the tax collection agency of Kenya. It was formed July 1, 1995 to enhance tax collection on behalf of the Government of Kenya. It collects a number of taxes and duties, including: value added tax, income tax and customs. Since KRA's inception, revenue collection has increased dramatically, enabling the government to provide much needed services to its citizenry. It promotes compliance with Kenya's tax, trade, and border legislation and regulation by promoting the standards set out in the Taxpayers Charter and responsible enforcement by highly motivated and professional staff thereby maximizing revenue collection at the least possible cost for the socio-economic wellbeing of Kenyans. To be the leading Revenue Authority in the world respected for professionalism, integrity and fairness. To maximize tax revenue to ensure the government can sustain itself from internal revenue sources.

Statement of the Problem

Most organizations have not been able to develop effective strategies in the adaptation and implementation of the necessary technological advancements to enable e-procurement in managing their procurement process. Therefore, the best strategy is usually formulated with the technological advancement in mind with proper consideration n the way the e-procurement can be used to improve the supply chain management in the organization that is an important component overall organization performance. Private and public sector organizations have been experiencing challenges on their procurement performance but organizations which have enhanced their performance through embracing e-procurement strategy have been able to supersede others in terms of accountability and transparency (Subramaniam and Shaw, 2002)

Steinberg's (2003) while doing a study on the implementation of e-procurement in state corporations in Britain agreed that while various governments are encouraging public sector agencies to adopt e-Procurement, its implementation does not appear to have been smooth and the rate of e-Procurement implementation success has been less than spectacular, as supported by claim that "Government e-Procurement projects have been notoriously unsuccessful". Stein (2009) admitted that adaptation of information technology in state cooperation has contributed to the improvement of services delivery by 40% and therefore need for enhancing effective service delivery through adaptation of an integrated automated operation. Productivity of most public institution with Kenya Revenue Authority is quite low, customer care is not good, while at the same time they continued to absorb excessive portion of the budget and most of it goes to procurement which is not fully automated (GoK ,2011). The operation of the procurement function which is a crucial function in procuring of material required for service delivery has been hampered by old tedious methods. Therefore, this study seeks to determine the Role of E-procurement strategies in enhancing procurement performance in state corporations in Kenya with reference to Kenya Revenue Authority.

1.3 Objectives of the Study

The study was guided by the following specific objectives:

- i. Evaluate the extent to which electronic communication affect the effectiveness of the procurement performance in Kenya Revenue Authority.
- ii. Determine the effects of electronic order processing on the effectiveness of the procurement performance in Kenya Revenue Authority.
- iii. Evaluate whether customer service level on e-procurement strategy affect procurement performance in state Corporations in Kenya
- iv. Determine the extent to which cost of E-procurement affect the effectiveness of the procurement performance in Kenya Revenue Authority.

LITERATURE REVIEW

Theoretical Literature Review

Technology acceptance model

TAM is an adaptation of the Theory of Reasoned Action (TRA) to the field of IS. TAM posits that perceived usefulness and perceived ease of use determine an individual's intention to use a system with intention to use serving as a mediator of actual system use. Perceived usefulness is also seen as being directly impacted by perceived ease of use. Researchers have simplified TAM by removing the attitude construct found in TRA from the current specification (Venkatesh *et. al.*, 2003). Attempts to extend TAM have generally taken one of three approaches: by introducing factors from related models, by introducing additional or alternative belief factors, and by examining antecedents and moderators of perceived usefulness and perceived ease of use (Wixom and Todd, 2005). TRA and TAM, both of which have strong behavioral elements, assume that when someone forms an intention to act, that they will be free to act without limitation. In practice constraints such as limited ability, time, environmental or organizational limits, and unconscious habits will limit the freedom to act (Graham, 2012).

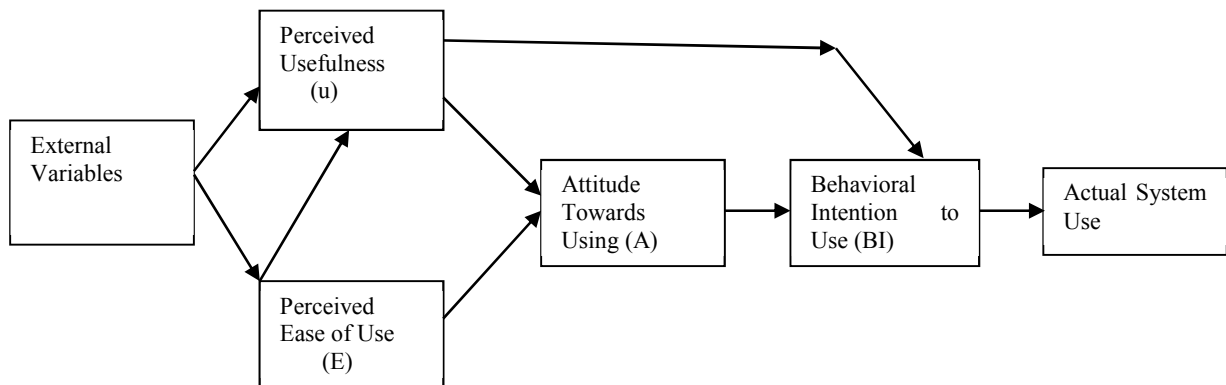


Figure 2.1: Technology acceptance model

The Unified Theory of Acceptance and Use of Technology

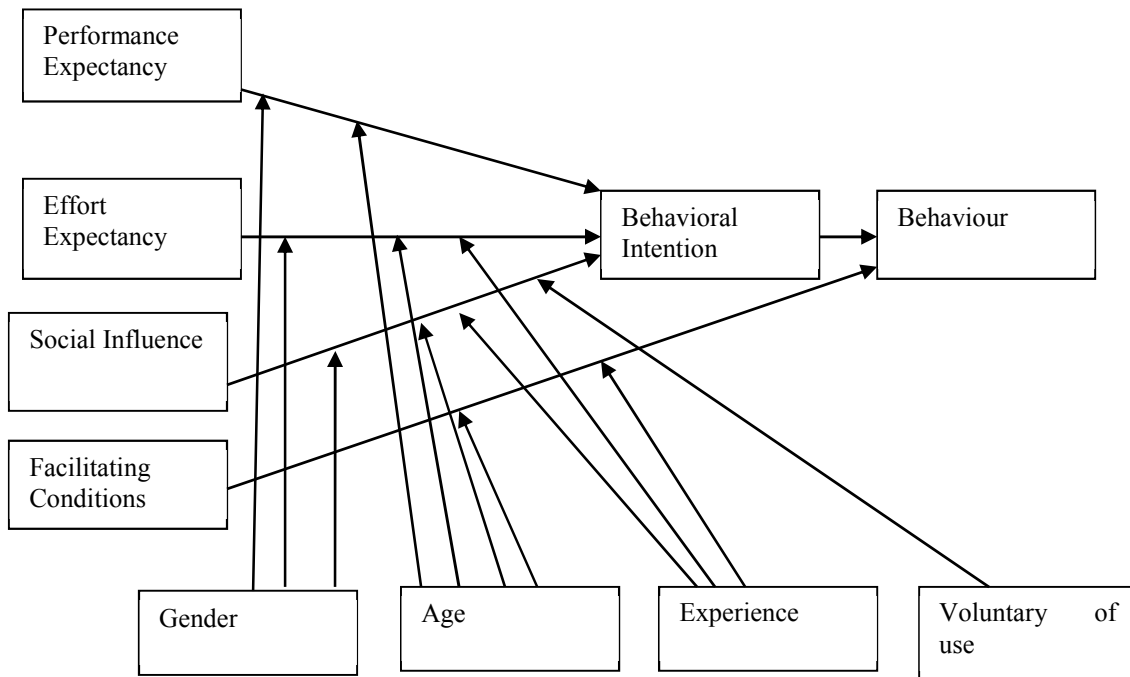


Figure 2.2: UTAUT Model

UTAUT Model (Yousafzai, Foxall, and Pallister, 2007).

This theory is based on the comprehensive review of 8 major IS and behavioral theories available during the last decade. The Unified Theory of Acceptance and use of Technology states that actual use of an Information system for an individual is directly influenced by the facilitating conditions and indirectly influenced by the factors such as Performance expectancy, effort expectancy and social conditions. UTAUT also confirms the positive relationship between behavioral intention and Actual behavior similar to the Theory of Planned Behavior, Theory of Reasoned Actions and Technology Acceptance Model. There are expected performance standards that are expected by the adaptation of the e-procurement in the organization. As the state cooperation adapt the use of ICT in their operation, they anticipate to improve their service delivery and ensure that the customers are more satisfied and that the process is more effective.

Actor–Network Theory

Actor–network theory, often abbreviated as ANT, is an approach to social theory and research, originating in the field of science studies, which treats objects as part of social networks. Although it is best known for its controversial insistence on the capacity of nonhumans to act or participate in systems or networks or both, ANT is also associated with forceful critiques of conventional and critical sociology (Jeferson,2006). Developed by science and technology studies (STS) scholars Michel Callon and Bruno Latour, the sociologist John Law, and others, it can more technically be described as a "material-semiotic" method. This means that it maps relations that are simultaneously material (between things) and semiotic (between concepts). It assumes that many relations are both material and semiotic.

Actor Network Theory (ANT) - posits a heterogeneous network of humans and non-humans as equal interrelated actors. It strives for impartiality in the description of human and nonhuman actors and the reintegration of the natural and social worlds. For example, Latour (1992) argues that instead of worrying whether we are anthropomorphizing technology, we should embrace it as inherently anthropomorphic: technology is made by humans, substitutes for the actions of humans, and shapes human action. What is important is the chain and gradients of actors' actions and competences, and the degree to which we choose to have figurative representations. Key concepts include the inscription of beliefs, practices, and relations into technology, which is then said to embody them (Mitchel, 1997). Broadly speaking, according Callon (1999) ANT is a constructivist approach in that it avoids essentialist explanations of events or innovations (e.g. explaining a successful theory by understanding the combinations and interactions of elements that make it successful, rather than saying it is "true" and the others are "false"). However, it is distinguished from many other STS and sociological network theories for its distinct material-semiotic approach.

Transactional Theory

When two people communicate, one person initiates a transaction with the transactional stimulus (see the above Transactions Defined section for a definition of the transaction stimulus). The person at whom the stimulus is directed will respond with the transactional response. Simple Transactional Analysis involves identifying which ego state directed the stimulus and which ego state in the other person executed the response. According to Dr. Berne, the simplest transactions are between Adults ego states. For example, a surgeon will survey the patient, and based upon the data before him/her, his/her Adult decides that the scalpel is the next instrument required. The surgeon's Adult holds out his/her hand, providing the transactional stimulus to the nurse. The nurse's Adult looks at the hand, and based upon previous experiences, concludes that the scalpel is needed.

The nurse then places the scalpel in the surgeon's hand. The two transactions described can be considered complementary transactions. In a complementary transaction, the response must go back from the receiving ego state to the sending ego state. For example, a person may initiate a transaction directed towards one ego state of the respondent. The respondent's ego state detects the stimuli, and then that particular ego state (meaning the ego state to which the stimulus was directed) produces a response. According to Dr. Berne, these transactions are healthy and represent normal human interactions. As Berne says in *Games People Play* "communication will proceed as long as transactions are complementary. The objective of E-procurement is to fasten the procurement process and fast decision making.

Empirical Review

E-Communication

According to Scholes (2006) many studies have pointed to areas where communication is vital to success of organizations. Yet it is still infrequently singled out for specific attention and it is often taken for granted. Proper communication across the departments through good information systems is important for any organization if it is going to achieve high levels of customer service and general performance that is mostly the main aim in many organizations. It is important that the communication system adaptable is effective and is able to meet the organizations communication needs by using the facilities provided for by e-procurement..

Communication is very crucial for any organization for both internal and external interactions and the use of computers offer effective communication process that is not only reliable but also effective. Nickels *et al* (2002) states that, effective dialogue with customers assists in developing a level of trust with customers. The government organizations need to explore ways in which the organization adapts the use of computers in managing its procurement process. This would go a long way in the effectively managing the procurement process and ensuring that the required goods and services are available as required. Proper and effective communication channels should be put in place to facilitate easy communication between supplies and the organization not only when there is a problem but always even when there are suggestions to be made by the supplies.

The adaptation and implementation of information technology to manage communication in procurement process is a common place in the running of the activities of the supplies management. It is important for organizations to properly understand that the use of e-procurement can highly reduce the overall cost of supplies management. Gerald and Joan (2002) on the benefits of using computer in organization operations advised that for any business firm to succeed they must embrace and incorporate Information Technology into day to day running of the enterprise. This reason couples with many other positive effects has prompted many organization to adapt and implement e-procurement in the overall running of their procurement activities. Information Technology is important to any organization that is keen on improving their procurement which is a key component in service delivery.

A computerized system should be put in place to link all the departments in an organization and the suppliers. Updating of such information is important both to the personnel and the suppliers. Target and Powel (2009) while doing a study on the adaptation of in the organization operations established that the use of IT has become common more than before with more companies adapting and implementing its programs in their business. The implementation of e-procurement should be well explored and the cost be well established in order for the process to be successful.

Therefore it is important for suppliers to always be able to get feed backs from the organization about their products and services they are offering to know where to improve on. Suppliers should be advised accordingly and correctly based on correct information. Where suppliers are advised correctly, there is a level of trust that is built between the supplier and organization. According to Lucas (1996) one must provide more than facts figures you must send a message of sincerity knowledge and honesty. The supplier should be able to see honesty and sincerity in the advice they get from the organization staff so that the decision made are made from an informed point and position. Although communication process can be very successful and effective in business if managed properly, the perception that the most people have about the whole process explains the levels of failure that have been registered by most organizations in the country. Kotler (2008) further states that

the more the required information is ready for the customers the higher the levels of customer satisfaction. How the person acts is influenced by his or her own perception of how informed they are. This evaluation of the situation mostly influenced by the past experiences and the general perception of the situation at hand determines whether one agrees to the idea of a particular message or not.

Electronic order processing

Since e-procurement is a way of using the internet to make it easier, faster and less expensive to purchase the goods and services they require, the key question is, can e-procurement be used to enhance organizational performance-procurement simplifies the sourcing and purchasing process in an organization. However there is still some resistance to change and therefore the importance of identifying whether e-procurement creates value to a procurement process, how and what are the benefits of changing from traditional procurement process to electronic procurement (Subramani, 2004).

According to Wilson (2002) companies have found a lot of benefits from their e-procurement projects which include the following: Process efficiencies amounting to annual savings, ability to link directly into existing systems, such as ERP, reductions seen in lead times within the procure-to-pay cycle, in some cases by 50%. Self-invoicing on behalf of clients can add to the bottom line, month-end reconciliation can end the problem of the wrong items being ordered or the wrong price being offered as business processes have been streamlined and all are working off the same catalog. The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organizations is made easier, faster and cheaper. The purpose of e-procurement is to allow the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues. The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon (Cranfield, 2000).

IT plays a critical role in the SCM. It is the driver that serves as the 'glue' in creating a coordinated supply chain. Its application varies from one organization to another. Managers in various levels of management use IT to make various decisions which affect all the players in the supply chain. The efficiency of decision making largely depend on the exposure the manager has and the resources at his disposal. Generally, decision making take long where IT is not embraced where a lot of activities are done manually and/or using the old form of operation (Brown and Eisenhardt, 1998). While there are many benefits that can be realized by State Corporation in terms of efficiency most organizations have registered low adaptation. Studies have been done on e-procurement. Batenburg (2007) conducted a study on e-procurement adoption by European firms. The study concluded that there exists country differences in e-procurement adoption, and that firms from countries with a low uncertainty avoidance such as Germany and the UK are the early adopters of e-procurement, while countries that are less reluctant to change such as Spain and France have lower adoption rates.

Customer Service Level

For an organization to be truly effective, every single part of it, each department, each activity and each person and each level must work properly together, because every person and every activity affects and in turn is affected by others (Murambi, 2005). Central to this is the notion of the internal customer "every part of an organization contributes to external customer satisfaction by satisfying its own internal customers" (Heijden *et al*, 2003). From emanating perspective this internal customer notion is also well accepted (Panayiotou *et al*, 2004) has led to the concept of internal marketing (Beamon, 2008). However, the application of notion of the internal customer service level to e-procurement is relatively new. The impact of e-procurement on an organization process and routines has concentrated primarily on the internal alignment characteristics of systems and practices within IT/IS strategy (Venkatraman, 2001).

Recent e-service for customer service level research has been primarily concerned with the provisions and development of service between organizations and its external customers, Warner (2000) for example developed ten key steps in the development of an e-service strategy to help create outstanding web-based services (Yu *et al*, 2008) investigated issues or customer participation in the delivery of services, (Wu *et al*, 2007) while concerned with quality of the customer experience considered the issues for service design. (Venkatraman, 2001) investigated the value-added features e-service need to provide to gain market share and profits, (Premkumar and Ramamurthy, 2005) developed a model linking customer perceived quality with e-service to the SERQUAL dimensions. Walker *et al* (2002) investigated the reasons why consumers accept or reject technology. Electronic customer relationship management (CRM) while recognizing the potential for data mining, improved segmentation and one-one marketing appears also to have been primarily concerned with managing the relationship and indeed the contact with customers (Saunders and Clark, 2002). Enterprise resources planning (ERP) systems in particular have been concerned with trying to integrate and co-ordinate the various internal functional areas to break down those functional boundaries and ensure that marketing, operations and financial decisions, for example, are all made using the same data. CRM systems are also used to

co-ordinate the supply chain by ensuring better sharing of information.

As the current market place becomes more competitive, customers tend to become more and more demanding. In the event of challenges such as intensifying global competition, the continuous increase in customer expectations and customers subsequent demands as the quality of service improves (Palaniswamy and Tyler, 2000), service firms unable to effectively cater to the needs and wants focustomers risk not only losing dissatisfied customers to competitors, but also ultimate erosion of profits and consequently, failure. Indeed these challenges are forcing organizations to break free from the tradition customer satisfaction paradigm, to adopt proactive strategies which will assist them in building and sustaining a competitive edge (Hines, 2004). One strategy that has been related to success in service level is the concept and quality of management. According to (Aberdeen Group, 2001) service level quality has become a significant differentiator and the most powerful competitive weapon which many leading service organizations possess.

Reduction of procurement cost

The amount of money that the organization saves when it adapts e-procurement cannot be over looked by any organization that is out to reduce its operation overheads Targett and Powell (2009) state proper use of information technology in an organization coupled with training of staff in systems operations can highly reduce the cost of operation in an organization. Though there are various software and hardware available for use in the procurement management in state proper identification of need and good selection of the best software to manage the operation is crucial for better performance of the supply chain management state corporations. Continuous Technological Development and improvement are emerging as vulnerable factors in the development of sustainable competitive advantage to enhance performance in the procurement process in the organization. Researchers have focused their attention towards improving retail merchandise services by offering a good integration between the retail merchandise services and the customers to offer convenience and high customer satisfaction coupled with operational efficiency and competitive advantage (Targett & Grimshaw, 2009).

Good e-procurement and integration are crucial and continuous improvement is important in supply chain management to the state corporations, According to Farmer and Jessops (1998) a system becomes more integrated within an organization and provides more and more information, so the likelihood of discovering inefficiencies within the system also increases. Input activities are therefore crucial to the development of integrated systems at their stage of development must match what is required to make the integrated system to work effectively. It is important that qualified personnel are employed to manage such systems to enable them to work efficiently. Although the initial cost of buying and installing of computerized procurement systems may be way too high for most organization the benefits that come with it cannot be assumed. Lucey (2007) advises that the organization needs to set budgets aside for the adaptation and implementation of information systems in the organization to ensure that the organization is not left behind in development of information systems. The more the organization adapts the use of modern technology the more efficient they become in their operations' there by reducing the overall operational cost in the organization.

Oduor (2010) while evaluating the effects of information technology on the performance of retail industry observe that all over the world most organizations have involved computers and computerized operations systems to perform most tasks with organizations that vary from planning, management, storage of data and communication process in their organization in order to bring efficiency and reliability within operations. Despite of the fact that the adaptation of computerized systems is expensive the benefits that are associated with their adaptation cannot be overlooked and this has seen many organizations in the recent past allocating huge sums of money on the installation and implementation.

The organizations worldwide are implementing the of use information technology to manage their procurement operations. According to Baker (1995) the potential benefit include enhance communication, increased efficiency in decision making and better information flow. Information systems make it easier to exchange information that it encourages the growth of geographically dispersed markets. For each expense of information to take place a cost is incurred and the more exchanges the greater the potential for cost saving. With this concept in mind the organization can highly reduce the overall cost of operations in the supply management process. According to (Mabert *et al*, 2010), process automation of procurement function helps in reduction of cost to firms in various industries. Cost surveys in US have recently revealed what was suspected for some time that by the time a requisition makes its way through a fax and internal mail paper maze of approvals to the central purchasing department, administrative costs- typically runs from \$ 40-\$ 150- often exceed the cost of the purchase itself.

The key features of most of these e-procurement approaches enable users to find an item in an electronic catalog, create a requisition, have the order requisition routed for approval if necessary, create and transmit the order to vendors, and (in varying degrees) help to automate the payment and invoicing process (Berger and Zeng, 2006). One of the most important and beneficial effects of an e-procurement framework is

that for the first time, business information systems are well integrated that they can provide an organization with the key tool cost data that allows them to make considered decisions on purchases, discount requirements and supplier partnerships (Bensaou and Venkatraman, 2006). In many ways, it is only now that the internet and advanced software systems make it possible to capture accurate and timely information on every purchase, that companies can analyze complex buying patterns and make truly informed decisions on strategic sourcing option (Dubois and Araujo, 2007). These costs and benefits should be assessed in relation to each e-procurement tool. While it is usually assumed that e-procurement will automatically deliver benefits, the actual benefits will depend on many factors including: cost of required investment, ability to convert associated savings to cash, nature of the procurement process being automated, particular supply market and the extent to which the organization supports its implementation (Subramani, 2004).

Puschmann and Alt (2005) advises that when state corporation are developing a business case for adopting or enhancing an e-procurement tool, it is important to assess the baseline benefits and costs associated with the process or processes to be automated in order to understand the probable outcomes of e-procurement adoption or enhancement. In essence, it is important to understand what will change and how it will change when an e-procurement tool is implemented.

Effectiveness of Performance of the Procurement Function

Procurement is one department that can contribute tremendously to the organization's efficiency and effectiveness. If the procurement department bought all that is required in the organization at the right time, price, place, quantity and quality all other departments within the organization would derive great benefits from this and would thus be able to serve their customers (both internal and external) better (Snider and Rendon, 2001). If the procurement department is inefficient in its acquisition of goods and services or even works, other departments would be affected and sometimes the consequences can be grave.

GSK recognized the need to improve its buying processes and systems, and provide researchers with high quality and accurate content to purchase lab supplies. A cross-functional team was formed consisting of representatives from procurement, finance, research & development, and information technology to review available tools and recommended a solution. GSK realized that gaining significant cost savings from an e-procurement tool required the delivery of accurate and up-to-date content to end users. The GSK team evaluated a number of e-procurement tools that would provide a large amount of lab supply content to researchers (Rayman, 2009). Some of the noted benefits of e-procurement include increased collaboration between buyers and suppliers, reduced personnel requirement, improved coordination, reduced transaction costs, shorter procurement cycles, lower inventory levels and greater transparency (Dooley and Purchase, Davila *et al.*, 2003 and Galle 2003; Turban *et al.* 2002; Osmonbekov, Bello and Gilliland 2002; Rajkumar 2001; Carter *et al.*, 2000).

Benefits of E-Procurement

While a number of definitions of e-procurement exist, Min and Galles (2003) definitions of electronic procurement as business-to-business purchasing practice that utilizes electronic commerce to identify potential sources of supply, to purchase goods and services to transfer payment and to interact with suppliers will be adopted for this research because it is comprehensive. Many agree that the intensely competitive nature of today's business environment makes the effective use of e-procurement an operational necessity for firms; it is an important issue that must be confronted by purchasing/supply management decision-makers now and into the future (Dooley and Purchase 2006; Davilia, Gupta & Palmer 2003; Carter *et al.*, 2000). The use of IT provides the basis for supply chain integration by providing efficient, timely, and transparent business information to the appropriate parties (Cagliano *et al.* 2003). Some of the relevant types of information include operations, logistics, and strategic planning information. Sharing of this information enables multiple firms to engage in synchronous decision making and can lead to improvements in production, planning, inventory management, and distribution (Sanders 2005). Due to its ability to provide vital information to the appropriate parties, Sanders (2005) dubbed IT the backbone of supply chain business structure.

Motiwalla, Khan and Xu (2005) undertook a study to identify the factors that impact the adoption/use of e-business across three different sectors. The researchers concluded that similarities in the level of IT adoption were identified within sectors because engaging in a particular activity prompts firms to develop similar behavior patterns. This would explain why firms engaged in information-intensive activities are more likely to accept new technological innovations. These firms do so primarily because using advanced technologies provide greater strategic benefits for them (Yap 1990; Min and Galle, 2003).

Challenges of E-procurement

The implementation of e-procurement tools carries certain risks. One of the primary risks is missing opportunities to implement strategies that improve procurement management without the need for investment in e-procurement. This is because many of the benefits ascribed to e-procurement may be achieved simply by

improving procurement practice. For example, it is often said that e-procurement reduces “maverick buying”. However, other measures, including the implementation of corporate buying strategies that offer value for money, do not need electronic tools (Puschmann and Alt, 2005).

According to Premkumar, Ramamurthy and Nilakanta (2004) another risk is over-investment in e-procurement tools that do not deliver the expected benefits. This risk arises when there has been inadequate evaluation of the implications of the adoption or enhancement of e-procurement tools. The risk that users will not accept an e-procurement tool is another common risk. This risk often arises where users have not been adequately consulted about the adoption or enhancement of particular tools. On the supply side, there is a risk that suppliers will not cooperate with the use of e-procurement tools. For example, some suppliers are sufficiently powerful to insist on the use of paper-based systems. Others may not have access to affordable internet based technology that would give them access to the e-procurement tools of purchasers.

Conceptual Framework

The need to have an effective supply management process is crucial to any organization for the buying and distribution of goods and services. This section provides a schematic presentation between the variables in the context of the problem under investigation.

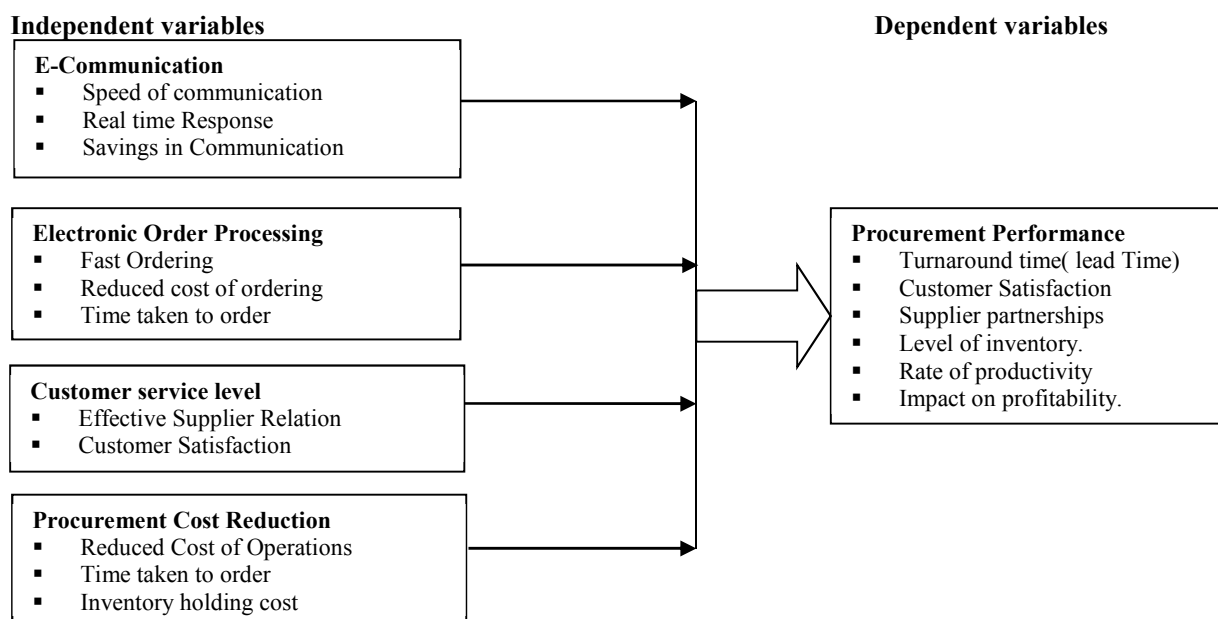


Figure 2.3: Conceptual framework

E-Communication

Better communication among the buyers and the suppliers coupled with efficiency of the Order Processing and fast ordering process will ensure that the cooperate organization s improve the effectiveness of their procurement performance in state corporations and ensure that goods and services are procurement in the right time and in the best way possible. This will help the state in saving money that is mostly lost in the procurement process.

The adaptation and implementation of information technology to manage communication in procurement process is a common place in the running of the activities of the supplies management. It is important for organizations to properly understand that the use of e-procurement can highly reduce the overall cost of supplies management (Gerald and Joan, 2002).

Electronic Order Processing

The electronic ordering system that the organization adapts will affect the ordering process in the organization thereby affecting the overall performance of the organization. Since e-procurement is a way of using the internet to make it easier, faster and less expensive to purchase the goods and services they require, the key question is, can e-procurement be used to enhance organizational performance of e-procurement simplifies the sourcing and purchasing process in an organization.

Customer Service Level

For an organization to be truly effective, every single part of it, each department, each activity and each person and each level must work properly together, because every person and every activity affects and in turn is

affected by others (Murambi, 2005). Central to this is the notion of the internal customer “every part of an organization contributes to external customer satisfaction by satisfying its own internal customers” (Heijden *et al*, 2003). From emanating perspective this internal customer notion is also well accepted (Panayiotou *et al*, 2004) has led to the concept of internal marketing (Beamon, 2008). However, the application of notion of the internal customer service level to e-procurement is relatively new. The impact of e-procurement on an organization process and routines has concentrated primarily on the internal alignment characteristics of systems and practices within IT/IS strategy (Venkatraman, 2001).

Recent e-service for customer service level research has been primarily concerned with the provisions and development of service between organizations and its external customers, Warner (2000) for example developed ten key steps in the development of an e-service strategy to help create outstanding web-based services (Yu *et al*, 2008) investigated issues or customer participation in the delivery of services, (Wu *et al*, 2007) while concerned with quality of the customer experience considered the issues for service design. (Venkatraman, 2001) investigated the value-added features e-service need to provide to gain market share and profits, (Premkumar and Ramamurthy, 2005) developed a model linking customer perceived quality with e-service to the SERQUAL dimensions.

Procurement Cost Reduction

According to (Mabert *et al*, 2010), process automation of procurement function helps in reduction of cost to firms in various industries. Cost surveys in US have recently revealed what was suspected for some time that by the time a requisition makes its way through a fax and internal mail paper maze of approvals to the central purchasing department, administrative costs- typically runs from \$ 40-\$ 150- often exceed the cost of the purchase itself.

Accordingly, any good e-procurement software system today is designed to greatly reduce the time and effort required to complete purchasing transactions by eliminating traditional paper chain of requisitions, approvals, receiving and payment reconciliation. The key features of most of these e-procurement approaches enable users to find an item in an electronic catalog, create a requisition, have the order requisition routed for approval if necessary, create and transmit the order to vendors, and (in varying degrees) help to automate the payment and invoicing process (Berger and Zeng, 2006). One of the most important and beneficial effects of an e-procurement framework is that for the first time, business information systems are well integrated that they can provide an organization with the key tool cost data that allows them to make considered decisions on purchases, discount requirements and supplier partnerships (Bensaou and Venkatraman, 2006).

In many ways, it is only now that the internet and advanced software systems make it possible to capture accurate and timely information on every purchase, that companies can analyze complex buying patterns and make truly informed decisions on strategic sourcing option (Dubois and Araujo, 2007). The value of E-procurement adoption is defined as the benefit over costs of implementing. E-procurement adoption is justified only when the perceived benefit is large enough to cover the cost. The high cost of initial investment associated with the required infrastructure and training of personnel, quantifying the return on investment often becomes a barrier to state corporations (Evenett and Hoekman, 2004).

Performance of Procurement

The use of Electronic procurement as business-to-business purchasing practice that utilizes electronic commerce to identify potential sources of supply is crucial to the improvement of the overall performance of the procurement process. Electronic procurement facilitated by the business-to-business help the purchasing of goods and services to transfer payment and to interact with suppliers.

Critical Review

Though many authors agree with benefits of e-procurement as concluded by (Dooley and Purchase 2006; Davilia, Gupta and Palmer 2003; Carter *et al*, 2000) where most of them agree that the intensely competitive nature and operations of today’s business environment makes the effective use of e-procurement an operational necessity for firms, it is an important issue that must be confronted by purchasing or supply management decision makers now and into the future. The literature has been wide and covering a wider are, the authors have not been able to critically look at the various factors that affect the adaptation and implementation of a successful e-procurement system. One area that is important in making sure of having a good and successful information system is to ensure that there is good and effective trained personnel that can operate and maintain the system. This is crucial given that all information technology equipments are complicated and required skilled personnel to operate and maintain them at all times.

The other noticeable area is the area of cost of the equipment which is very important for the whole organization to implement any computerized system. The literature does not look into the issue of cost and other financial requirements that can ensure that all computerized systems run properly. The other factor is the aspect

of having goodwill from the organization concerned. The importance of the project requiring the top management endorsement is important to enable the system to run well and draw a good support from the top management and the staff of the organization for a successful information technology system.

Summary

For any organization in the state corporations to be effective and efficient in its supplies chain management, the elements cited above must be properly looked at and all the activities looked at properly for the company to realize high profits and to succeed in its massive expansion program. With e-procurement integrating all the activities in the supplies chain management the operations are not only fast but also reliable. The use of e-procurement is widely spread and many organizations private or public have already implemented IT in their daily operations. Initially, inventory management and control, ordering, issuing and feeding of received stock was done manually but all these operations are now done through modern computerized systems which are very reliable and efficient. In most cases, the use of e-procurement has reduced the overall cost of operation though initially expensive in installation and maintenance but the overall returns to the company are noticeably high.

Research Gaps

Given that the performance of procurement depends on the adaptation of e-procurement to manage its procurement process. The literature has identified that one area that is important in making sure of having a good and successful information system is to ensure that there is a good and effective trained personnel that can operate and maintain the system though the study has not considered the effectiveness of the procurement n the performance of the procurement activities. Although Nickels et al (2002) while evaluating the effects of communication in business stated that, effective dialogue with customers assists in developing a level of trust with customers. Very little research has been done on the adaptation of e-procurement in state cooperation and therefore the government organizations need to explore ways in which the organization adapts the use of computers in managing its procurement process.

As much as studies have been done on the effects of information technology on the pertains cooperation f organization including Oduor (2010) on the effects of information technology on the performance of retail industry there is on study that has been done to evaluate the effectiveness of e-procurement n the procurement activities in state corporation .

METHODS

Research Design

The research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information (Zikmund, 2003). It specifies the framework or the blueprint for the research. A descriptive research design will be adapted. According to Cooper and Schindler (2001), descriptive studies deal with the question of who, what, when, where and how topics are used, where there is some understanding of the topic. A descriptive research design was used in this study. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2003). It can also be used when collecting information about people's attitudes, opinions habits or any other social issues (Orodho, 2003). The choice of this design is appropriate for this study since it utilizes a questionnaire as a tool of data collection and helps to establish the behavior of employees towards embracing e-procurement in state corporations. This is supported by (Mugenda and Mugenda, 2003) who assert that this type of design enables one to obtain information with sufficient precision so that hypothesis can be tested properly. It is also a framework that guides the collection and analysis of data. (Kothari, 2005) observes that a descriptive research design is used when data is collected to describe persons, organizational settings or phenomenon. The study concentrates on the Role of E-procurement strategies in enhancing procurement performance in state corporations in Kenya with reference to Kenya Revenue Authority.

Target Population

Population refers to an entire group of persons or elements that have at least one thing in common. Population also refers to the larger group from which a sample is taken (Orodho, 2003). A population can also be defined as including all people or items with the characteristic one wish to understand. The study mainly focused on the staff and the related activities of Kenya Revenue Authority at head office branch which has a total population of 467 employees and will include; Procurement Management Staff, Operations, and Finance Department staff and the Stores management Staff in the organization that form 90 of the whole targeted population. The study was carried out between October and November 2014 at Nairobi the Kenya Revenue Authority Head offices at Times Towers in Nairobi and was based on the role of e-procurement on performance of the organization.

Table 3.1: Target Population

Category	Population	Percentage
Procurement Management Staff,	14	8.7
Operations Management Staff	43	26.8
Finance Department staff	14	8.7
the Stores management Staff	19	11.9
Selected Suppliers	70	43.9
Total	160	100

Sample Design and Procedure

A sample is a part of the target population that is procedurally selected to represent the population (Cooper and Schindler, 2001). The researcher used the stratified random sampling method to select a sample size from the staff in the organization since this method is not selective and therefore provided free and equal chance of participation to all the respondents. The study also used purposive sampling method to select respondents to participate in the study from the suppliers who supply various goods and services to the organization. The table below shows the sampling frame.

Table 3.1: Sample Size

Category	Population	Sampling Method	Sample Size	Percentage
Procurement Management Staff	14	Random	7	10.7
Operations Management Staff	43	Random	22	33.8
Finance Department staff	14	Random	7	10.7
the Stores management Staff	19	Random	9	13.8
Selected Suppliers	70	Purposive	20	31.0
Total	160		65	100

Data Collection Instruments and Procedures

Data Collection

Primary data- this was the main data that will gather the purpose of the research and it provided much of the actual facts from the field (Muthoni, 2010).The researcher used questionnaires as the main tool for data collection. The data collected was called the raw data since it could not interfere with in any way and it was only made available by the research study (Nderitu, 2012). The selection of this data was guided by the nature of the data to be collected, the time available as well as the objective of the study. This is a set of few questions asked in a logic sequence but put in a writing form. They require brief and direct answers. The questionnaire was both closed and open. It provided respondents with a chance to respond freely to the questions posed to them. A questionnaire was used since the study was concerned with variable which cannot be directly observed such as views, opinions, perceptions and feeling of the respondents. Such information is collected through the use of questionnaires (Touliatos and Compton, 1988). The whole of the target population was literate and had no difficulties responding to the questions posed to them.

Pilot Research Instruments

The instruments were piloted at KRA as a pre-test to make adjustments where necessary to improve their validity and reliability.

Testing for validity and reliability

Reliability refers to the extent to which your data collection techniques or analysis procedures would yield consistent findings (Saunders *et al*, 2009).this was a challenge in my study to ensure that my data collection and analysis is not biased (subject or observer biases) and erroneous. This ensured that my area of study can answer affirmatively the three questions posed by and to check whether ones study is reliable. These are: would the measures yield the same results on other occasions, would similar observations be reached by other observers and whether there is transparency in how sense was made from the raw data.to ensures that the instruments remained reliable, piloting was done among ten selected employees within the organization who have experience in procurement and information technology.

Validity is concerned with whether the findings are really about what they appear to be about (Saunders *et al*, 2009).this was concerned with how accurate data obtained in the study represented the variables of the study, this was if the data collected was a true reflection of the variables then the influences based on such data were accurate and meaningful.

The questionnaire was pilot-tested on few employees who have experience with procurement and information and communication technology.

Data Analysis Procedures

This is a process that starts immediately after data collection and ends at the point of interpretation of the process results (Obure, 2002). It includes data sorting (rearrangement of data questionnaires to allow some systematic handling, data editing to identify errors that might occur during data collection, cleaning of data to check for accuracy and completion. The data was analyzed through qualitative and quantitative techniques and presented through tables and graphs for easy understanding of the findings.

Multiple Regression Model

Procurement Performance in State Corporations was regressed against four variables of the E-Procurement factors that affect the Effectiveness of The Procurement Performance In State Corporations namely Electronic Order Processing, e-Communication, Automated Operations and cost of operations of Procurement Performance. The equation will be expressed as follows:

$$Y=b_0+b_{1x}+b_{2x}+b_{3x}+b_{4x}+ \epsilon$$

Ys = Procurement Performance

b = Constant (Co-efficient of intercept)

X1 = Electronic Order Processing and;

X2 = e-Communication;

X3= customer service level

X4= cost of procurement

ϵ = Error Term (these are variables which are not considered but they also have influence to procurement performance)

b1b4= Regression co-efficient of four variables

RESULTS AND DISCUSSIONS

Introduction

The aim of this chapter is to provide a summary of the data collected through the use of questionnaires. General trends are explained using percentages, tables, figures and descriptions of data as a way to present the findings of the investigation. The primary data was collected using questionnaires. A total of 65 questionnaires were hand delivered to respondents. The data collected was then analyzed using the Statistical Package for Social Science (SPSS) – version 21.0. The findings are presented as per the objectives and research questions of the study.

The study results are presented in two sections, namely: descriptive and inferential statistical analysis. The first stage involved reporting all the information related to each of the respondents' personal profiles. This was followed by data analysis in relation to the research objectives outlined in chapter one. Descriptive analysis was done to report on the respondents including the results of the measurement variables. Finally, the results of regression to test the relationships between constructs are reported in detail. This Chapter concludes by highlighting the main findings obtained from the quantitative data. The next section presents the results of the empirical analysis, discusses the findings and interpretations.

Descriptive data analysis

In this section, descriptive statistics were used to describe in quantitative terms the main features of the collected data.

Role of E-procurement strategies in enhancing procurement performance in state corporations in Kenya

This section presents findings related to the objectives of the study.

Extent to which electronic communication affect effectiveness of procurement performance in Kenya Revenue Authority

In order to meet the first objective of the study, “to evaluate the extent to which electronic communication affect the effectiveness of the procurement performance in Kenya Revenue Authority” the respondents were provided with a listing of electronic communication factors that could affect effectiveness of the procurement performance and asked to tick as appropriate along a five – point scale. *Where:* Not at all = (1); Small extent = (2); Moderate Extent = (3); Large extent = (4). The responses are summarized and presented in table 4.1 below.

Table 4.1: Extent to which electronic communication affect effectiveness of procurement performance in Kenya Revenue Authority

5 = Extremely Important 1 = Not important at all	Response (%)					Mean	Std. Dev	Ranking
	1	2	3	4	5			
Easy communication	-	12.2	14.6	39.0	34.1	3.95	0.999	3
Lower cost of communication	4.9	7.3	14.6	43.9	29.3	3.85	1.085	5
Instant Responses	4.9	4.9	7.3	46.3	36.6	4.05	1.048	1
Real time Information	4.9	4.9	4.9	51.2	34.1	4.05	1.024	1
Reduced complains	4.9	7.3	12.2	46.3	29.3	3.88	4.05	4
<i>N = 41</i>								

Findings in table 4.1 above indicate that the highest ranked electronic communication factors were *Instant responses* and *Real time information* (Mean = 4.05) each. The least ranked factor was *Lower cost of communication* (Mean = 3.85).

Effects of effects of electronic order processing on the effectiveness of procurement performance in Kenya Revenue Authority

In order to meet the second objective of the study, “to determine the effects of electronic order processing on the effectiveness of the procurement performance in Kenya Revenue Authority” the respondents were provided with a listing of electronic order processing factors that could affect effectiveness of the procurement performance and asked to tick as appropriate along a five – point scale. *Where:* Not at all = (1); Small extent = (2); Moderate Extent = (3); Large extent = (4). The responses are summarized and presented in table 4.2 below.

Table 4.2: Effects of effects of electronic order processing on the effectiveness of procurement performance in Kenya Revenue Authority

5 = Extremely Important 1 = Not important at all	Response (%)					Mean	Std. Dev	Ranking
	1	2	3	4	5			
Accurate Information	2.4	4.9	14.6	46.3	31.7	4.00	0.949	5
Reduced Mistakes	2.4	2.4	12.2	48.8	34.1	4.10	0.889	1
Fast delivery of goods	2.4	7.3	12.2	41.5	36.6	4.02	1.012	3
Reduced paper work	2.4	7.3	14.6	36.6	39.0	4.02	1.037	3
Less cost in ordering processes	2.4	2.4	14.6	43.9	36.6	4.10	0.917	1
<i>N = 42</i>								

Findings in table 4.2 above indicate that the highest ranked electronic order processing factors were *Reduced Mistakes* and *Less cost in ordering processes* (Mean = 4.10) each. The least ranked factor was *Lower cost of Accurate Information* (Mean = 4.00).

Extent to which customer service level on e-procurement strategy affect procurement performance in Kenya Revenue Authority

In order to meet the third objective of the study, “to evaluate extent to which customer service level on e-procurement strategy affect procurement performance in state Corporations in Kenya” the respondents were provided with a listing of customer service level factors that could affect effectiveness of the procurement performance and asked to tick as appropriate along a five – point scale. *Where:* Not at all = (1); Small extent = (2); Moderate Extent = (3); Large extent = (4). The responses are summarized and presented in table 4.3 below.

Table 4.3: Extent to which customer service level on e-procurement strategy affects procurement performance in Kenya Revenue Authority

5 = Extremely Important 1 = Not important at all	Response (%)					Mean	Std. Dev	Ranking
	1	2	3	4	5			
Customer service quality	2.4	7.3	17.1	41.5	31.7	3.93	1.010	3
Variability in demand	4.9	7.3	12.2	46.3	29.3	3.88	1.077	5
Customer service management	2.4	7.3	14.6	48.8	26.8	3.90	0.970	4
Forecast accuracy	2.4	2.4	14.6	39.0	41.5	4.15	0.937	1
Internal Customers Satisfaction	4.9	4.9	17.1	34.1	39.0	3.98	0.937	2
<i>N = 42</i>								

Findings in table 4.3 above indicate that the highest ranked customer service level factor was *Forecast accuracy* (Mean = 4.15). The least ranked factor was *Variability in demand* (Mean = 3.88).

Extent to which cost of e-procurement affect procurement performance in Kenya Revenue Authority

In order to meet the third objective of the study, “to determine the extent to which cost of E-procurement affect the effectiveness of the procurement performance in Kenya Revenue Authority” the respondents were provided

with a listing of various costs of operations factors that could affect effectiveness of the procurement performance in the organization and asked to tick as appropriate along a five – point scale. *Where:* Not at all = (1); Small extent = (2); Moderate Extent = (3); Large extent = (4). The responses are summarized and presented in table 4.4 below.

Table 4.4: Extent to which cost of e-procurement affect procurement performance in Kenya Revenue Authority

5 = Extremely Important 1 = Not important at all	Response (%)					Mean	Std. Dev	Ranking
	1	2	3	4	5			
Reduced ordering cost	2.4	7.3	17.1	41.5	31.7	3.93	1.010	5
Reduced inventory cost	-	4.9	7.3	39.0	48.8	4.32	0.820	2
Reduced communication cost	2.4	-	4.9	43.9	48.8	4.37	0.799	1
Reduced filling cost	2.4	4.9	12.2	39.0	41.5	4.12	0.980	3
Reduced overhead costs		2.4	22.2	36.6	39.0	4.12	0.842	3
<i>N</i> = 42								

Findings in table 4.4 above indicate that the highest ranked cost of e-procurement factor affecting procurement performance was service level factor was *Reduced communication cost* (Mean = 4.37). The least ranked factor was *Reduced Ordering Cost* (Mean = 3.93).

Regression analysis

In order to test the hypotheses proposed in the study, multiple regression analysis was employed. Multiple regressions are a statistical technique that allows for prediction someone’s score on one variable on the basis of their scores on several other variables. Forward selection method was employed, whereby SPSS enters the variables into the model one at a time in an order determined by the strength of their correlation with the criterion variable. The effect of adding each variable is assessed as it is entered, and variables that do not significantly add to the success of the model are excluded.

The first regression analysis was run with electronic communication as independent variable and procurement performance as dependent variable. The second regression was run to explain the relationship electronic order processing as the independent variable and procurement performance as the dependent variable. The third regression was run to explain the relationship between customer service level as the independent variable and procurement performance as the dependent variable. The fourth regression was run to explain the relationship between cost of e-procurement as the independent variable and procurement performance as the dependent variable.

The Standardized Beta Coefficients give a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. The *t* and Sig (*p*) values give a rough indication of the impact of each predictor variable. The results show a big absolute *t* value and small *p* value, which suggests that a predictor variable is having a large impact on the criterion variable. Collinearity diagnostics option was requested, which is indicated in the additional two columns (Collinearity Statistics).

The tolerance values are a measure of the correlation between the predictor variables and can vary between 0 and 1. The closer to zero the tolerance value is for a variable, the stronger the relationship between this and the other predictor variables. We should worry about variables that have a very low tolerance. SPSS will not include a predictor variable in a model if it has a tolerance of less than 0.0001. VIF is an alternative measure of collinearity (in fact it is the reciprocal of tolerance) in which a large value indicates a strong relationship between predictor variables.

A summary of the results for regressions of the role of e-procurement strategies and procurement performance is presented in tables 4.5, 4.6, 4.7 and 4.8 below.

Table 4.5: Summary of regression results between electronic communication and procurement performance

Independent Variables	Dependent Variable – Procurement performance		
	Overall Model		
	Beta	VIF	Tolerance
Electronic communication	0.286	1.000	1.000
R Square	0.082		
Adjusted R Square	0.065		
Std. Error of the Estimate	0.632		
F – Value	4.974		
P - Value	0.030		

The results in table 4.5 above illustrate that procurement performance is positively and significantly influenced

by electronic communication ($F = 64.974$; $p = 0.030$).

Table 4.6: Summary of results for regression results between order processing and procurement performance

Independent Variables	Dependent Variable – Procurement performance		
	Overall Model		
	Beta	VIF	Tolerance
Electronic order processing	0.328	1.000	1.000
R Square	0.098		
Adjusted R Square	0.081		
Std. Error of the Estimate	0.626		
F – Value	6.057		
P - Value	0.017		

The results in table 4.6 above illustrate that Procurement performance is positively and significantly influenced by Electronic order processing ($F = 6.057$; $p = 0.017$).

Table 4.7: Summary of regression results between Customer service level and Procurement performance

Independent Variables	Dependent Variable – Procurement performance		
	Overall Model		
	Beta	VIF	Tolerance
Customer service level	0.327	1.000	1.000
R Square	0.107		
Adjusted R Square	0.091		
Std. Error of the Estimate	0.623		
F – Value	6.713		
P – Value	0.012		

The results in table 4.7 above illustrate that Procurement performance is positively and significantly influenced by Customer service level ($F = 6.713$; $p = 0.012$).

Table 4.8: Regression results between cost of e-procurement and procurement performance

Independent Variables	Dependent Variable – Procurement performance		
	Overall Model		
	Beta	VIF	Tolerance
Cost of e-procurement	0.567	1.000	1.000
R Square	0.322		
Adjusted R Square	0.310		
Std. Error of the Estimate	0.543		
F – Value	26.568		
P – Value	< 0.05		

The results in table 4.8 above illustrate that Procurement performance is positively and significantly influenced by Cost of e-procurement ($F = 26.568$; $p < 0.05$).

Discussions

This section presents discussion of findings of the study.

Findings of the study indicate that electronic communication positively influenced procurement performance in Kenya Revenue Authority. The highest ranked electronic communication factors were *Instant responses* and *Real time information* (Mean = 4.05) each. The least ranked factor was Lower cost of *communication* (Mean = 3.85). Further, the results illustrate that procurement performance is positively and significantly influenced by electronic communication ($F = 64.974$; $p = 0.030$). Communication is very crucial for any organization for both internal and external interactions and the use of computers offer effective communication process that is not only reliable but also effective. Nickels *et al* (2002) states that, effective dialogue with customers assists in developing a level of trust with customers. According to Baker (1995) the potential benefit include enhance communication, increased efficiency in decision making and better information flow. Information systems make it easier to exchange information that it encourages the growth of geographically dispersed markets. For each expense of information to take place a cost is incurred and the more exchanges the greater the potential for cost saving. With this concept in mind the organization can highly reduce the overall cost of operations in the supply management process.

The findings also show that electronic order processing positively influenced procurement performance in Kenya Revenue Authority. The highest ranked electronic order processing factors were *Reduced Mistakes* and *Less cost in ordering processes* (Mean = 4.10) each. The least ranked factor was lower cost of *Accurate Information* (Mean = 4.00). Further, the results illustrate that procurement performance is positively

and significantly influenced by Electronic order processing ($F = 6.057$; $p = 0.017$). Findings of the study concur with the literature reviewed. For instance, Wilson (2002), observed that companies have found a lot of benefits from their e-procurement projects which include, but is not limited to: process efficiencies amounting to annual savings, ability to link directly into existing systems, such as ERP, reductions seen in lead times within the procure-to-pay cycle, in some cases by 50%. Self-invoicing on behalf of clients can add to the bottom line, month-end reconciliation can end the problem of the wrong items being ordered or the wrong price being offered as business processes have been streamlined and all are working off the same catalog. The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organizations is made easier, faster and cheaper. Vranfield (2000) asserts that the purpose of e-procurement is to allow the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues. The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon.

Using Internet technology to buy goods and services from a number of known or unknown suppliers has improved the vendor process in Australia with much improvement being realized on the part of , e-informing: Gathering and distributing purchasing information both from and to internal and external parties using Internet technology, e-market sites: Expands on Web-based ERP to open up value chains. Buying communities can access preferred suppliers' products and services, add to shopping carts, create requisition, and seek approval, receipt purchase orders and process electronic invoices with integration to suppliers' supply chains and buyers' financial systems (Jessop, 2006).

Similarly, Barua, Konana, Whinston and Yin (2001) identified e-Procurement as the element of e-business most contributory towards the e-Business operational excellence of large corporations. There is strong consensus among researchers and practitioners regarding the strategic importance of developing efficient purchasing techniques to increase transparency and fairness, reduce corruption, ensure competitiveness and reduce costs. An increasing number of government authorities are adopting e-procurement solutions to reap the above stated benefits (Panayiotou *et al.*, 2004).

Level of customer service influenced procurement performance in Kenya Revenue Authority. The highest ranked customer service level factor was *Forecast accuracy* (Mean = 4.15). The least ranked factor was *Variability in demand* (Mean = 3.88). The results illustrate that Procurement performance is positively and significantly influenced by Customer service level ($F = 6.713$; $p = 0.012$). For an organization to be truly effective, every single part of it, each department, each activity and each person and each level must work properly together, because every person and every activity affects and in turn is affected by others (Murambi, 2005). Central to this is the notion of the internal customer "every part of an organization contributes to external customer satisfaction by satisfying its own internal customers" (Heijden *et al.*, 2003). From emanating perspective this internal customer notion is also well accepted (Panayiotou *et al.*, 2004) has led to the concept of internal marketing (Beamon, 2008). The impact of e-procurement on an organization process and routines has concentrated primarily on the internal alignment characteristics of systems and practices within IT/IS strategy (Venkatraman, 2001).

Enterprise resources planning (ERP) systems in particular have been concerned with trying to integrate and co-ordinate the various internal functional areas to break down those functional boundaries and ensure that marketing, operations and financial decisions, for example, are all made using the same data. CRM systems are also used to co-ordinate the supply chain by ensuring better sharing of information. As the current market place becomes more competitive, customers tend to become more and more demanding. In the event of challenges such as intensifying global competition, the continuous increase in customer expectations and customers subsequent demands as the quality of service improves (Palaniswamy and Tyler, 2000), service firms unable to effectively cater to the needs and wants focustomers risk not only losing dissatisfied customers to competitors, but also ultimate erosion of profits and consequently, failure. Indeed these challenges are forcing organizations to break free from the tradition customer satisfaction paradigm, to adopt proactive strategies which will assist them in building and sustaining a competitive edge (Hines, 2004). One strategy that has been related to success in service level is the concept and quality of management. According to (Aberdeen Group, 2001) service level quality has become a significant differentiator and the most powerful competitive weapon which many leading service organizations possess.

E-procurement positively influenced procurement performance in Kenya Revenue Authority. Findings indicate that the highest ranked cost of e-procurement factor affecting procurement performance was service level factor was *Reduced communication cost* (Mean = 4.37). The least ranked factor was *Reduced Ordering Cost* (Mean = 3.93). The results in illustrate that Procurement performance is positively and significantly influenced by Customer service level ($F = 6.713$; $p = 0.012$). The findings concur with the assertions by Dai and Kauffman (2001); Koorn, Smith and Mueller (2001) that while there is debate about how recently e-Procurement has emerged, there is no doubt that the use of the Internet in e-Procurement provides several advantages over earlier inter-organizational tools. For example, Electronic Data Interchange has been providing

automated purchasing transactions between buyers and their suppliers since it was launched in the 1960s. Amin (2009) admit that any organization that does not adapt e-procurement in its buying process in the organization is disadvantaged and cannot compete effectively in the ever increasing competitive world.

Cost of E-Procurement positively influenced procurement performance in Kenya Revenue Authority. Findings indicate that the highest ranked cost of e-procurement factor affecting procurement performance was service level factor was *Reduced communication cost* (Mean = 4.37). The least ranked factor was *Reduced Ordering Cost* (Mean = 3.93). Findings illustrate that Procurement performance is positively and significantly influenced by Cost of e-procurement ($F = 26.568$; $p < 0.05$). Targett and Powell (2009), observed that the amount of money that the organization saves when it adapts e-procurement cannot be over looked by any organization that is out to reduce its operation overheads. They further assert that proper use of information technology in an organization coupled with training of staff in systems operations can highly reduce the cost of operation in an organization. Though there are various software and hardware available for use in the procurement management in state proper identification of need and good selection of the best software to manage the operation is crucial for better performance of the supply chain management state corporations.

Lucey (2007) advises that the organization needs to set budgets aside for the adaptation and implementation of information systems in the organization to ensure that the organization is not left behind in development of information systems. The more the organization adapts the use of modern technology the more efficient they become in their operations' there by reducing the overall operational cost in the organization. Oduor (2010) while evaluating the effects of information technology on the performance of retail industry observe that all over the world most organizations have involved computers and computerized operations systems to perform most tasks with organizations that vary from planning, management, storage of data and communication process in their organization in order to bring efficiency and reliability within operations. Despite of the fact that the adaptation of computerized systems is expensive the benefits that are associated with their adaptation cannot be overlooked and this has seen many organizations in the recent past allocating huge sums of money on the installation and implementation.

According to (Mabert *et al*, 2010), process automation of procurement function helps in reduction of cost to firms in various industries. While it is usually assumed that e-procurement will automatically deliver benefits, the actual benefits will depend on many factors including: cost of required investment, ability to convert associated savings to cash, nature of the procurement process being automated, particular supply market and the extent to which the organization supports its implementation (Subramani, 2004). Puschmann and Alt (2005) advises that when state corporation are developing a business case for adopting or enhancing an e-procurement tool, it is important to assess the baseline benefits and costs associated with the process or processes to be automated in order to understand the probable outcomes of e-procurement adoption or enhancement. In essence, it is important to understand what will change and how it will change when an e-procurement tool is implemented.

CONCLUSIONS AND RECOMMENDATIONS

Summary

This section presents a summary of the key aspects of the study.

Findings of the study indicate that electronic communication positively influenced procurement performance in Kenya Revenue Authority. The highest ranked electronic communication factors were *Instant responses* and *Real time information* (Mean = 4.05) each. The least ranked factor was Lower cost of *communication* (Mean = 3.85). Further, the results illustrate that procurement performance is positively and significantly influenced by electronic communication ($F = 64.974$; $p = 0.030$).

The findings also show that electronic order processing positively influenced procurement performance in Kenya Revenue Authority. The highest ranked electronic order processing factors were *Reduced Mistakes* and *Less cost in ordering processes* (Mean = 4.10) each. The least ranked factor was lower cost of *Accurate Information* (Mean = 4.00). Further, the results illustrate that procurement performance is positively and significantly influenced by Electronic order processing ($F = 6.057$; $p = 0.017$).

Level of customer service influenced procurement performance in Kenya Revenue Authority. The highest ranked customer service level factor was *Forecast accuracy* (Mean = 4.15). The least ranked factor was *Variability in demand* (Mean = 3.88). The results illustrate that Procurement performance is positively and significantly influenced by Customer service level ($F = 6.713$; $p = 0.012$).

E-procurement positively influenced procurement performance in Kenya Revenue Authority. Findings indicate that the highest ranked cost of e-procurement factor affecting procurement performance was service level factor was *Reduced communication cost* (Mean = 4.37). The least ranked factor was *Reduced Ordering Cost* (Mean = 3.93). The results in illustrate that Procurement performance is positively and significantly influenced by Customer service level ($F = 6.713$; $p = 0.012$).

Cost of E-Procurement positively influenced procurement performance in Kenya Revenue Authority.

Findings indicate that the highest ranked cost of e-procurement factor affecting procurement performance was service level factor was *Reduced communication cost* (Mean = 4.37). The least ranked factor was *Reduced Ordering Cost* (Mean = 3.93). Findings illustrate that Procurement performance is positively and significantly influenced by Cost of e-procurement ($F = 26.568$; $p < 0.05$).

The conclusions of the study are presented in the next section.

Conclusions

Based on the findings of the study, this section presents the conclusions.

The ideas conveyed in this study are in response to the research questions set forth. This study achieved its main objective, which was “to examine the Role of E-procurement strategies in enhancing procurement performance in state corporations in Kenya”. Findings of the study indicate that electronic communication positively influenced procurement performance in Kenya Revenue Authority as it leads to instant responses and real-time information. The purpose of e-procurement is to allow the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues. The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon.

Procurement performance is also positively and significantly influenced by electronic communication, which is very crucial for any organization for both internal and external interactions and the use of computers offer effective communication process that is not only reliable but also effective. Effective dialogue with customers assists in developing a level of trust with customers. The potential benefit include enhance communication, increased efficiency in decision making and better information flow. Information systems make it easier to exchange information that it encourages the growth of geographically dispersed markets. For each expense of information to take place a cost is incurred and the more exchanges the greater the potential for cost saving. With this concept in mind the organization can highly reduce the overall cost of operations in the supply management process.

The findings also show that electronic order processing positively influenced procurement performance in Kenya Revenue Authority. Studies have shown that companies have found a lot of benefits from their e-procurement projects which include, but are not limited to: process efficiencies amounting to annual savings, ability to link directly into existing systems, such as ERP, reductions seen in lead times within the procure-to-pay cycle.

The findings also indicate that self-invoicing on behalf of clients can add to the bottom line, month-end reconciliation can end the problem of the wrong items being ordered or the wrong price being offered as business processes have been streamlined and all are working off the same catalog. The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organizations is made easier, faster and cheaper.

Level of customer service influenced procurement performance in Kenya Revenue Authority. An organization to be truly effective, every single part of it, each department, each activity and each person and each level must work properly together, because every person and every activity affects and in turn is affected by others.

E-procurement positively influenced procurement performance in Kenya Revenue Authority. While there is debate about how recently e-Procurement has emerged, there is no doubt that the use of the Internet in e-Procurement provides several advantages over earlier inter-organizational tools. For example, Electronic Data Interchange has been providing automated purchasing transactions between buyers and their suppliers since it was launched in the 1960s. Any organization that does not adapt e-procurement in its buying process in the organization is disadvantaged and cannot compete effectively in the ever increasing competitive world.

Cost of E-Procurement positively influenced procurement performance in Kenya Revenue Authority. The amount of money that the organization saves when it adapts e-procurement cannot be over looked by any organization that is out to reduce its operation overheads. Proper use of information technology in any organization coupled with training of staff in systems operations can highly reduce the cost of operation in an organization. Though there are various software and hardware available for use in the procurement management in state proper identification of need and good selection of the best software to manage the operation is crucial for better performance of the supply chain management state corporations.

Organization needs to set budgets aside for the adaptation and implementation of information systems in the organization to ensure that the organization is not left behind in development of information systems. The more the organization adapts the use of modern technology the more efficient they become in their operations' there by reducing the overall operational cost in the organization. Despite of the fact that the adaptation of computerized systems is expensive the benefits that are associated with their adaptation cannot be overlooked and this has seen many organizations in the recent past allocating huge sums of money on the installation and implementation.

The process automation of procurement function helps in reduction of cost to firms in various industries. While it is usually assumed that e-procurement will automatically deliver benefits, the actual benefits will depend on many factors including: cost of required investment, ability to convert associated savings to cash, nature of the procurement process being automated, particular supply market and the extent to which the organization supports its implementation

Recommendations

In view of the findings of the study, the following recommendations for policy and practice are made:

Based on the findings of the study and conclusions drawn, the following recommendations are made for policy and practice.

The role of e-procurement in the purchasing function cannot be overemphasized, as it allows the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues. The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon. For organizations reap maximum benefits from the procurement process, there is need to invest in the required equipment, personnel and knowledge to facilitate the e-procurement process.

Effective dialogue with customers assists in developing a level of trust with customers. The potential benefits include enhance communication, increased efficiency in decision making and better information flow. Information systems make it easier to exchange information that it encourages the growth of geographically dispersed markets. Though there is a cost incurred in adopting and embracing e-procurement, the savings accruing outweigh the costs incurred. Consequently, organizations are advised to invest in e-procurement as they can highly reduce the overall cost of operations in the supply management process.

Findings of the study revealed that that companies have found a lot of benefits from their e-procurement projects which include, but are not limited to: process efficiencies amounting to annual savings, ability to link directly into existing systems, such as ERP, reductions seen in lead times within the procure-to-pay cycle. The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organizations is made easier, faster and cheaper. Whereas there is a cost incurred, the focus should be on the long-term benefits.

Cost of E-Procurement positively influenced procurement performance. The amount of money that the organization saves when it adapts e-procurement cannot be over looked by any organization that is out to reduce its operation overheads. Proper use of information technology in an organization coupled with training of staff in systems operations can highly reduce the cost of operation in an organization. Organization needs to set budgets aside for the adaptation and implementation of information systems in the organization to ensure that the organization is not left behind in development of information systems. The more the organization adapts the use of modern technology the more efficient they become in their operations' there by reducing the overall operational cost in the organization.

The process automation of procurement function helps in reduction of cost to firms in various industries. While it is usually assumed that e-procurement will automatically deliver benefits, the actual benefits will depend on many factors including: cost of required investment, ability to convert associated savings to cash, nature of the procurement process being automated, particular supply market and the extent to which the organization supports its implementation

Suggested areas for further study

The following areas are suggested for further study:

(i) As opposed to industry wide generalization of the current results, a new study could be replicated in specific industry settings. It would be intriguing to see how significant a role industry differences, corporate culture, and financial capacity play in suppliers' responsiveness; (ii) investigate the influence of factors of e-procurement strategy on procurement performance that have not been investigated in this study; (iii) Others various ways of collecting data, different study design should be employed to see if such results would be got or if there will be variation; and (iv) Similar research should be carried out in private sector organizations so as to see whether the same results will be achieved.

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ACRONYMS AND ABBREVIATIONS

B2B	Business to Business
B2C	Business to Consumer
CRM	Customer Relationship Management
EDI	Electronic Data Interchange
EP	Electronic Procurement
ERP	Enterprise Resource Planning
ICT	Information and communication technologies
IT	Information Technology
KRA	Kenya Revenue Authority
P2P	Purchase-to-pay
PP	Procurement Performance
PPR	Procurement Performance Research
SCM	Supply Chain management
TRA	Theory of Reasoned Action
US	United States

DEFINITION OF TERMS

E-procurement

This is the business-to-business or business-to-consumer or business-to-government Purchase and sale of supplies, work, and services through the Internet as well as other Information and networking systems, such as electronic data interchange and Enterprise Resource Planning (Herold, 2006).

Vendor

Is an enterprise that contributes goods or services and may include a supply chain vendor manufactures inventory/stock items and sells them to the next link in the chain. A vendor often manufactures inventorial items, and sells those items to a customer (Lakers, 2009)

Buyer

Person or organization that procures goods and services is any person who contracts to acquire an asset in return for some form of consideration. A buyer or merchandiser is a person who purchases finished goods, typically for resale, for a firm, government, or organization. A person who purchases material used to make goods is sometimes called a purchasing agent. In product management, buyer is the entity that decides to obtain the product (Jessop, 2006).

Government

Government normally consists of legislators, administrators, and arbitrators. Government is the means by which state policy is enforced, as well as the mechanism for determining the policy of the state. A form of government, or form of state governance, refers to the set of political systems and institutions that make up the organization of a specific government (Steinberg, 2003).

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