Factors Contributing To Adoption of E-Procurement in County Governments (A Case Study of County Government of Mombasa)

Khalif Abdrahman Mohamed & Clifford Milimu
JOMO Kenyatta University of Agriculture and Technology

Abstract: The purpose of this study was to examine factors affecting the adoption of e-procurement system in county governments; a case study of county government of Mombasa. The objectives of the study are; to determine the influence of technology on progress of e-procurement in the county government, to assess how organizational culture affects the implementation of e-procurement and to establish how environment influences the use of e-procurement system. The research study employed a cross sectional survey design that use simple and stratified random sampling methodology with the sample frame being constructed from the departments which are concerned with the use of e-procurement.

The study found that larger percentage of staff working for the county government supports the adoption of the e-procurement system despite the challenges. Procurement function within the public sector has generally been characterized as being highly bureaucratic, paper based model with multiple hand-offs, process duplication, and highly time consuming before the introduction of IFMIS system.

It was also realized from the study that top management isn’t really interested in the adoption of the e-procurement system. However, majority of staff at the county government believes that there’s information sharing thus improves the on the adoption of the system. This therefore led to a recommendation that the county government of Mombasa should adapt the e – procurement systems.

The researcher used sampling technique to generate data which was analyzed using SPSS and result presented in form tables, pie charts and bar graphs. The outcome of correlation as analyzed by the SPSS version 20 shows that most respondents prefer to use technology in their procurement process as opposed to manual system. They also indicate that the used of E- procurement enhance cost effectiveness and efficiency the procurement process.

The regression and correlation analysis were generated by the SPSS version 20 statistic derivatives. This was to depict the correlation between variable that affects the E- procurement at the county government of Mombasa. The correlation indicates that there was a strong correlation between the use of E- procurement and cost minimization and efficiency in the county government. The module summary indicates a standard error of 1.486 and the mean square of 2.213.

Background

1.1. E-procurement in Mombasa County Government

E-procurement and its use According to Bialy 2008, e- Procurement is done with a software application that includes features for supplier management and complex auctions. The new generation of e-procurement is currently on demand or software as a service (SaaS). The e-procurement value chain comprises indent management, e- tendering, e- auctioning, vendor management, catalogue management and contract management. Indent management is the workflow involved in the preparation of tenders. This part of value chain is optional, with each procuring department defining its indenting process. As concerns works procurement, administrative approval and technical sanction are obtained in electronic format. On the other side, in goods procurement, indent generation activity is done online. The end result of the stage is taken as inputs for issuing the NIT (Peter, 2012). e- Procurement (or Business- to- Business networks) is an online system by which companies can be connected directly to suppliers for the purpose of buying products and services at the lowest cost possible. e-Procurement essentially replaces its offline version, called tender. The advantages and disadvantages of e- Procurement mostly parallel the universal benefits and disadvantages of the internet. The public sector organizations use e- Procurement for contracts to achieve benefits for example increased efficiency and cost savings, faster and cheaper in government procurement (Acher 2005) 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 sub-division 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 a country’s larger e-Government efforts to better serve its citizen and businesses in the digital economy. For instance, Singapore’s GeBIZ was implemented as one of the programmes under its e-Government master plan.

This field is populated by two types of vendor’s: big enterprise resource planning (ERP) provides which offer e-Procurement as one of their services, and the more affordable services focused specifically of e-Procurement. According to Aberdeen 2001, an e-Procurement system manages tenders through a web site. This can be accessed anywhere globally and has greatly improved the accessibility of tenders. E-Procurement applications focus on creating efficiencies; their goal is to make the traditional purchasing procedures more efficient and cost effective (Wu, 2007 and Turban et al, 2006). Larsen et al (2008) noted the development and implementation of electronic commerce business models such as a procurement portal in organizations in a challenge that goods beyond mere technological functionality. Top management support organizational adaptation, and training of employees are examples of issues for the successful implementation of organization IT system (Kawalek et al, 2003). In the study on e-procurement adaptation in Greece, Panayiotou et al. (2004) pointed out e-procurement strategy, re-engineering of procurement processes and management of expectations as key success factors in an e-procurement adaptation strategy. Their conclusion was that implementation must be achieved in a manner of “incremental change” where technological solutions apply to regulations and policies.

Today, e-Procurement within government is recognized as one of the main areas in the Government-to-business (G2B) category, and receives much attention from researchers (Turban and King, 2003), being also called electronic public procurement. UK National e-Procurement Project Report (2004) notes e-Procurement is a tool to enable procurement activities, including sourcing, ordering, commissioning, receipting and making payments for the whole spectrum of an authority’s activities.

County Government of Mombasa is one of the 47 counties in Kenya created by Constitution of Kenya 2010 (GoK 2010). Recently, there has been an increasing clamor by the County Governments for all the devolved functions to be transferred to them and requests for additional funding from the National Government. Council of Governors (CoG) is on record as having requested control of the funds for roads within their counties, funds which were hitherto being managed by various roads authorities. At the same time, there is concern being raised regarding the capacity for counties to manage the functions and the funds that they are receiving. This necessitated for Public Procurement and Disposal Regulation (County Government edition) in August 2013 to govern the management of public fund under the new dispensation i.e. in county Governments.

The Constitution and PFM Act, 2012, contain provisions that are aimed at safeguarding the utilization and management of public resources. Article 227(1) of the Constitution requires that state organs must procure in accordance with a system that is fair, equitable, transparent, competitive and cost-effective. Article 227 (2) requires Parliament to enact legislation that will prescribe a framework within which policies relating to procurement and asset disposal shall be implemented.

The Public Procurement sector in Kenya has evolved from a crude and old system characterized by manual and paper work with no regulations to an orderly legally regulated system characterized by e-commerce and procurement procedures laid out in the Public Procurement and Disposal Act, 2015 and the Public Procurement and Disposal Regulations, 2006. National government, county governments and a number of public sector agencies in Kenya have identified electronic procurement (e-procurement) as a priority e-Government agenda and have implemented or are in the process of implementing buy-side e-Procurement systems.

County Governments must explore the use of ICT as procurement options that they can race for improving their County Government’s competitiveness in order to improve service delivery. Nowadays, local and global sources are electronically connected and dynamic in nature. Therefore, County Governments are trying to improve their agility level with the objective of being flexible and responsive to meet the changing requirements through E-Procurement.

E-procurement system mirrors the procurement process through the provision of two distinct, but connected infrastructures, internal processing (intranet) and external communication processing (internet based platforms). The critical difference is
that these systems allow individual employees to order goods directly from their personal computers through the web on real-time. Requests and orders are channeled through various forms of hubs or database. It also allows individual employees to search for items, checks availability, place and track orders and initiate payment of delivery.

In an effort to achieve seamless communication, County Governments must be integrated with suppliers/partnering firms in Supply Chain Management (SCM) through use of information systems.

E-procurement enables “just in time” strategy, streamlining of supply chain by removal of inefficient intermediaries, better access to information and transparency in markets and removal of market barriers like time difference and geography (Leonard and Cochran, 2003).

1.2 Statement of the Problem

The shift from manual to e-procurement will help to enhance transparency and credibility in the management of public finances and tendering process. County Government of Mombasa will start to embrace the use of Integrated Financial Management Information System (IFMIS). This is the system which enables monitoring of all transactions during the procurement process, providing functionalities such as the approval hierarchy, which is an end to end process that facilitates the procurement process from planning to payment. Notable among the e-procurement functions is the item master responsible for standardizing the use of items within all Government Ministries, Department and Agencies and counties. This will help to manage the price inflation of commonly used items in Government offices.

One of the notable functions of the e-procurement system is the Supplier portal that is set to enable suppliers to access the status of their purchase or service order issued and payments. E-procurement will help in procurement planning, management of suppliers, requisitions, quotations, contracts and receipts and aids to a more effective and cost efficient online transaction.

Given the mentioned advantages of e-procurement and the disadvantages posed by manual procurement such as paperwork, inefficiency and lack of transparency, this study is seeking to find out the factors that contribute to the adoption of e-procurement process in the Mombasa county government.

Conventional wisdom suggests that government procurement differs from private procurement. Public sector procurement is large and complex, accounting for between twenty and thirty percent of gross domestic product (Thai & Grimm, 2000) Governments procure goods and, in order to preserve accountability and transparency services, use a complex contractual system designed to protect the public interest (Rasheed, 2004). While private sector procurement is practiced under the sponsorship of each individual firm’s governance policies, public sector procurement must operate within a range of regulations and policies established to accomplish desirable social as well as economic (OCIO, 2000), financial, and public audit requirements.

Government procurement officials issue requests for bids and/or proposals with product or service specifications that are unique to each contracting event and economies of scale are difficult to achieve (Rasheed, 2004).

There are also bargaining and opportunism costs of governance unique to public procurement that result in high transaction costs (Globerman & Vining, 1996)

1.3. General Objective of the Study

The general objective of the study is to examine factors contributing to adoption of the e-procurement system in County Government of Mombasa.

1.3.1 Specific Objectives of the Study

The study will be guided by the following specific objectives;

1) To determine how dynamism of technology affect the adoption of e-procurement in the county government
2) To assess how organizational culture affects adoption of e-procurement in the county government
3) To establish how Standardization in an organization influences the adoption of e-procurement in the county government

1.4 Hypothesis

In order to achieve its objectives, the researcher will use the following hypothesis in line with the research objectives:

**HO1:** Technology does not affect adoption of e-procurement in the county government

**Ha1:** Technology affects adoption of e-procurement in the county government
HO2: Organizational culture does not affect adoption of e-procurement in the county government
Ha2: Organizational culture affects adoption of e-procurement in the county government
HO3: Organizational Standardization does not affect adoption of e-procurement in the county government
Ha3: Organizational Standardization affects adoption of e-procurement in the county government

1.5 Significance of the Study
The era of technology has developed rapidly throughout the years with many developing countries being left out from the benefits of various innovations. Developed countries are seen to be more efficient and effective in various aspects of public service due to adoption of ICT into their structures.

This can also be the case for less developed countries especially in Africa. This study is motivated by a desire to establish how challenges encountered in adoption of e-procurement by county Governments can be reduced and benefits tapped.

Significance of this study is to highlight the role played by information systems in improving procurement activities and the county government’s general ability to achieve their service delivery goals efficiently. Governors will consider information systems and technology as a vital component of the county government’s success. In addition to this; the study will help future scholars gain the much needed information on the topic and ultimately adding material to the existing body of knowledge.

More importantly supply chain management relies on the internetworking by the enterprise with customers, business suppliers and other business partners. Most counties in Kenya still largely use the conventional methods of acquiring, storing, managing and retrieving information. As a result, there’s a lot of wastage in terms of time and money hence the need to enhance technological methods as compared to conventional methods. The study will be very useful to:

1.5.1 Government Policy Makers
The findings of this study will provide the policy makers with information on what makes suppliers and procuring entities adopt or not adopt e-procurement. This will be significant to the policy makers as they formulate policy on prudential guidelines for e-public procurement.

1.5.2 Public Procuring Entities
Findings will also assess issues on e-procurement risk management from the supplier perspective. Procuring entities will be better enlightened on the existent attitudes, propensity by suppliers to integrate and this will assist them make informed choices.

1.5.3 Suppliers
Suppliers wishing to supply to county governments will be more prepared and informed in terms of the investments they are required to make to successfully form an integrated partnership as well as the potential pitfalls they are likely to encounter in the process.

1.5.4 Academicians
Findings of this study will assist other academicians to find gaps in literature on the topic and the study can also be used as a reference point for other related studies.

1.5.5 Scope of the Study
The research focused on Mombasa county government. The county government’s core mandate is service and product delivery to the public. The reason behind choosing the Mombasa county government is that just like the national government they have an elaborate supply chain and are governed by PPDA act of 2015. Further Mombasa is the second largest county by revenue allocation after Nairobi. Therefore this study will be confidently generalized to the other counties. The study is therefore to reveal the impact that information systems and technologies have on an organization’s performance especially in the supply chain management function. The research is conducted in Mombasa county headquarters. This study is confined to discussion of the use of ICT in procurement process. Level of computerization and staff literacy is covered. This study will also focus on the cost implication of adopting the online procurement systems. Addressed also in the study will be challenges and fears of major stakeholders.

5.6 Limitations of the study
The researcher experienced a number of challenges including time constraint, non-respondent and cooperation and financial problems. There was time constraints where the research was not able to gather all the information needed to complete the research and hence some areas within the research had to be delayed. other challenges resulted from non-cooperation and response from the response
which compelled the researcher to persuade and use inducements to have the respondents provide information needed. The research in itself is an expensive exercise hence the researcher experienced financial challenges in working out the research. Such costs included consultation, transport and printing costs.

LITERATURE REVIEW

2.1 Introduction

This chapter involved the relevant literature review concerning the research problem as discussed by other scholars. The study discusses information systems in general, their significance and contribution to public procurement. According to Mugenda, (1999), review of literature involves the systematic identification, location and analysis of documents containing information related to the research problem being investigated, review of literature records, what strategies, procedures & measuring instruments have been found useful in investigating the problem in question.

The literature review is based on the specific objectives to ensure that focus remains on the research topic. However, this didn’t limit the researcher from reviewing other aspects that are vital to this study. There are three main perspectives to e-procurement. They are; Information perspective, transaction perspective and infrastructure perspective.

2.2 Theoretical framework

Procurement refers to a process in which organizations establish agreements for the acquisition of goods or services (contracting) or purchase of goods or services in exchange of payment (purchasing) (Robinson et al, 2010, Rolstadas et al, 2011). E-procurement refers to the use of information technology in the procurement process (Abu-Elsamen et al., 2010: Garriddo et al., 2008; Gunesekaran & Ngai, 2008; Muffato & Payaro, 2004.) According to Croom & Brandon-Jones (2004), e-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.

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. According to Gunasekaran and Ngai (2008), e-procurement works in such way that buyer software enables users to automate transactions and focus mostly on buying organizations activities such as order placement, catalogue management, payment, reporting and so on. As noted by Quinnox (2012), e-procurement is a very comprehensive phenomenon which includes making strategic initiatives and it can be used in reorganizing the entire purchasing process.

A properly implemented e-Procurement system can connect companies and their business processes directly with suppliers while managing all interactions.

Peleg et al. (2002) see the e-procurement as a powerful vehicle for reducing the organization cost and improving productivity. E-procurement solutions, as Gunasekaran and Ngai (2008) said, are the internet technology platforms and services which make company’s purchasing activities more efficient and cost effective. Moon (2005) suggests e-procurement has several benefits like lowering transaction costs, increasing ordering speed, widening vendor’s choices and so on. However, same time Gunasekaran and Ngai (2008) also stated several adoption barriers. Khanapuri, Nayak, Soni, Sharma and Soni (2011) assert that there are a number of requirements relating to the adoption of e-procurement system.

According to Hartnett & Heffernan (2001), e-Procurement is the application of technology to create a system or systems which allow an organization to carry out its purchasing / supply management function in whole or in part in an electronic environment. It has the capability to yield substantial benefits if correctly deployed; benefits in terms of simplified purchasing, financial savings, time savings, improved financial controls and enhanced systems integration.

Theories and theoretical frameworks used to explain information technology adoption and use by organizations include; Diffusion of innovation (DOI) theory, Resource based view (RBV) theory, Network effect theory, Institutional theory, Path dependency theory and Technology organization theory (TOE).

2.2.1 Diffusion of Innovation (DOI) Theory

The DOI theory (Rogers, 1962; Rogers, 2003) describes the process of spreading an innovation via communication channels over time among the members of a social system. Four key elements in the diffusion process are innovation, communication channels, time and the social system. Roger’s theory details the stages of the innovation decision process (Knowledge, persuasion, decision, implementation & confirmation). The theory suggests the pertinent
attributes of an innovation (Relative advantage, compatibility, complexity, trial ability & observation). The theory also suggests major categories of adopters (innovators, early adopters, early majority, late majority and laggards). The category of an adopter and the attributes of an innovation affect the rate of adoption. DOI theory suggests that organization structure (e.g. centralization, complexity and formalization) and organization openness affect the rate of adoption. DOI theory suggests that innovation adoption involves five stages: knowledge, persuasion, decision, implementation and confirmation.

2.2.2 Resource Based View (RBV) Theory

The RBV theory (Wernerfelt, 1984; Barney, 1991) suggests that firms create value by combining resources, both tangible and intangible. The RBV theory distinguishes physical capital resources, human capital resources and organization capital resources. IT can be seen to be a capital resource. Training, experience, judgment, intelligence, relationships and insight of individual managers and workers in a firm are human capital resources. The structure and the management systems of a firm along with the firms relationships with organizations and entities in it environment are viewed by RBV theory as the firm’s capital resources. The structure of an organization is both reflected and supported by its information systems and the organization’s relationship with other organizations may involve sharing information in digital form and inter-organizational system integration. RBV theory has been criticized for being not specific enough in defining various types of resources.

2.2.3 Network Effect Theory

Network effect theory (Katz & Shapiro, 1986; Chwelos, Benbasat, & Dexter, 2001) (Also known as network externality or demand side economies of scale) suggests that the actions of an organization may depend on the collective actions of other firms. The value of a technology with network effect is dependent on the number of others using it. The size of the network of firms using a particular technology with network effect is affected by benefits that adopters derive from using the technology, while the benefits in turn depend on the size of the network. Examples of technology with network effect are e-mail and Electronic Data Interchange.

2.3 Conceptual Framework

Conceptual framework shows relationship between two variables; the independent variables and the dependent variable. This section provides a graphical presentation interrelationship between variables in the context of the problem investigated. According to (Mugendi, 2003) an independent variable is a property or phenomenon where their effect influences others.

In this study, the dependent variable is e-procurement adoption. It is considered dependent since the success of any e-procurement system depends on the outcomes of many factors. Single factors acting individually have a collective impact on the success on an e-procurement system. The independent variables in this case are the factors that lead to success of e-procurement systems. An effectively e-procurement system will depend on the following independent variables as illustrated in figure below.
2.4. Empirical Review

Empirical research has shown that the status of the Procurement function among other functions is highly correlated with the level of strategic procurement, and the company’s financial performance (Carr and Smeltzer, 1997). By participating proactively in strategic processes of the company, Procurement can capitalize on its unique and important position at the inbound side of the company. A digital divide exists between those with internet access and capability and those without; this divide may be between organizations, such as small businesses and large organizations, within nations, for example between urban and rural communities, or between nations, such as developing and developed nations. The level of the divide is most extreme between highly technologically developed nations, such as the USA, and less-developed nations, such as many of the African nations. Developing countries in Africa and other regions face a competitive disadvantage because their businesses have difficulty accessing the internet (Finance & Development, 2005). Certain factors seem to affect internet usage and e-business uptake amongst developing countries. Developing countries whose policies promote economic growth and private sector competition have experienced higher internet intensities (Dasgupta, Lall & Wheeler, 2005).

A country’s degree of development impacts on internet usage, and degree of development can be viewed in terms of a country’s status in the world, level of democracy, foreign investment, manufacturing exports and trade share (Crenshaw and Robison, 2006) (Santora, 2006). Factors impacting on the diffusion of e-commerce in developing countries include infrastructure in areas such as IT and telecommunications, commercial, government and legal, social and cultural factors, transportation and minimum disposable income (Javalgi and Ramsey, 2001) (Murillo, 2001). Trade using e-commerce is a means of improving the economic growth and performance of less-developed nations (Lund and McGuire, 2005).

According to Cater (2001), a growing range of companies in the developing world are making the Internet a key part of their sales and marketing. The new aid, e-procurement, is encouraging companies to find more customers, offer products and services for export and increase efficiency to compete in global markets. Currently there are major
Competent staffs are key to improving the procurement function. The complex nature of procurement operations requires staff to have a broad range of generic procurement skills and special expertise in many technical areas.

Top management support & employee knowledge are main factors that impact on the adoption. Support from top management is key to ensure that resources needed to adopt a technology or to expand its use are available (Grover, 1993) and to overcome resistance to change (Teo et al., 1998). Lack of top management support may result in failure of implementation (Grandon & Pearson, 2004). Organizations are more likely to adopt & use technology when top management support for the technology adoption and use is strong.

Employee knowledge about technology enables organizations to manage effectively the risks associated with investing in a technology (Mata, Fuerst, & Barney, 1995). Conversely, inadequate knowledge about technology hinders technology and use (Gunasekaran & Ngai, 2008; Hawking & Stein, 2004; Teo et al., 2007). Staff knowledge on information technology promotes technology implementation and use. To achieve full benefits of e-procurement, there should be ability by staff to evaluate, adopt and exploit external knowledge. Information/knowledge sharing impacts also on the adoption and culture of trust, support and openness need to be enhanced.

2.4.3 Increased Standardization:

With the electronic catalogs mentioned, there has been a move by some suppliers to offer a more standardized offer, thus allowing buyers to easily compare the offers from e-catalogs; however care must be exercised in these comparisons as it is difficult to assess the quality of products without samples. If in doubt request samples and take time to make your own assessment.

The great news is that most catalog sites operate in a very similar way, and they are very easy to set up allowing multiple business users to undertake some of their own procurement this keeps the business running, sourcing the day-to-day needs of the business and allows procurement people to continue to develop great value-adding relationships.

2.4.3.1 Wider Spread Supplier Bases:

Because the virtual e-procurement portals are web-based, buyers can search suppliers worldwide, meaning a wider selection of products and services are available to the organization meaning that when items are not available locally, it is still possible to source these. It is important to remember the time

2.4.1 Technology

E-procurement application requires good and supportive soft and hard technological infrastructure across the country for it to be effectively applied (Kalakota et al, 2006). Organizations are more likely to use e-procurement if they believe that e-procurement results in benefits. Reduction of transaction errors and transaction costs, enhancing customer service, reduction of paper transactions, minimize order cycle and improved relationships with suppliers are e-procurement benefits. Perceived implementation costs relate to the anticipated costs of using e-procurement.

Reluctance to use e-procurement can be as a result of perceived high costs. IT infrastructure available within an organization can impact on the adoption. IT infrastructure e.g. computers, databases and communication networks need to be available. There should be stable power supply, undisputed network infrastructure, e-procurement software, adequate servers and backups. A country e-procurement readiness report evidenced that few of these do exist in the country but the Government is trying to make changes such as the installation of the national broadband. Therefore, adequate funds should be set aside in the County Government’s budget that will be specifically utilized for capital investment on e-procurement technological soft and hard infrastructure in the county (Kalakota et al, 2006). Hypothetically, it is believed that there is a direct relationship between supportive technological infrastructure and the application of e-procurement in the country, hence priorities towards capital investment should be changed and be channeled towards constructing e-procurement technological infrastructure. Relative advantage, compatibility and complexity are characteristics that impact on the adoption decisions.

2.4.2 Organization Culture

Over the years, a dramatic increase in procurement volume raised the profile of procurement as an important organizational function that should be treated on a par with other organizational functions, such as finance and human resources management. Therefore the importance of adequate human resources capacity in procurement cannot be stressed enough. The number and professional qualifications of procurement staff are of utmost importance in ensuring effective and efficient procurement processes.

developments in E-procurement implementation in Kenya, in particular across all industry sectors.
and cost of shipping goods, but it’s great to know that it is possible to source items from somewhere in the world!

### 2.4.3.2 Simplified Global Procurement:

With the e-procurement applications supporting various languages, currencies, international taxation and financing, shipping regulations and more, it is simple for buyers and suppliers in different countries worldwide to communicate and cooperate.

#### 2.4.4 Adoption of e-procurement

In full operation of e-procurement, the county governments are expected to heavily embrace technology in all procurement stages starting from procurement planning throughout the process to the contract management (GoK, 2013). The users raise purchase requisitions online and present them to the procurement department via email, online sourcing is done and negotiation, purchase and service orders are also sent via electronic mail and follow up and expediting is also done through electronic mail (GoK, 2013). This creates efficiency in operations but is at times disadvantageous especially when quality is compromised by suppliers and goods will have to be returned due to failure to conform to specifications.

Organizations and governments that have fully embraced technology in their procurements use an e-procurement system to monitor all the procurement related activities as well as to monitor the movement of stock and calculate reorder levels for stocks. This creates efficiency, minimizes errors and ensures that no product ever runs out of stock (Kalakota et al, 2006). All these forms of application of e-procurement practiced by the procurement department are a strong tool that ensures minimal face to face interaction with suppliers. It also increases accountability and vendor rating.

### 2.5 Critique of the Existing Literature

On the national government level, impact of e-procurement has been researched extensively. Under the new constitution which was passed into law in 2010, Kenya is now divided into 47 counties for administrative purposes but both the national and the county governments share the same procurement laws and the same e-procurement platform.

Both national and county governments are currently required to transact online with IFMIS system. The available literature does not give enough evidence concerning the impact of e-procurement adoption in the county governments.

This research will be focusing specifically on the supply and chain management in county governments with the main focus being county government of Mombasa.

### 2.6 Research Gaps

The literature shows that there is a little research, which has been done on the impact of e-procurement on the county governments in Kenya. Also, literature has shown very little concerning the direct impact of e-procurement on the service delivery on the county governments. Many research which have been done majorly dwell on the ICT impact on the national government or parastatals. This research explores more on the actual adoption of e-procurement in county governments.

### 2.7 Summary

Public sector organizations need to use e-procurement for the purchase of goods, work or services 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 in both county and national governments. E-procurement in the public sector has seen rapid growth in recent years. E-procurement in the public sector is emerging internationally and thus initiatives have been implemented by Kenyan government by the introduction of e-procurement through IFMIS System.

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-procurement will strengthen relationships with suppliers by providing easy access to documentation and “simplify the bidding process” while providing “clear audit trails and identification of the originator of all transactions”. E-procurement helps in modernization of public financial management systems by the National Treasury.

## RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter describes the research design and the methodology that was used in investigating the factors affecting the adoption of e-procurement in Mombasa County Government and the specific objectives thereof. The research design, population,
sampling technique, sample size, data collection instruments, pilot testing, data collection procedures, data analysis and presentation was discussed.

3.2 Research Design

A research design is an in-depth plan of how an investigation into a specific problem was carried out. A research design includes the methodology and procedure employed to conduct scientific research. It is the conceptual structure within the research is conducted including collection, measurement and analysis of data (Kothari, 2003). Research design is a plan for collecting and utilizing data so that desired information can be obtained with sufficient precision or so that a hypothesis can be tested properly (Mugenda & Mugenda, 2003). This study employed a descriptive design to assess how the independent factors affect adoption of e-procurement system in county governments; a case study of Mombasa county government. According to Creswell (2003), descriptive survey designs are used in preliminary and exploratory studies, to allow researchers to gather information, summarize, present data, and interpret it for the purpose of clarification. The study under this research was to find out where, when, or what are the factors that contribute to the adoption of e-procurement in Mombasa county.

3.3 Population of Study

A population is a group of individuals, events or objects to which researchers wish to generate the results of the study, (Gall and Borg 2002). The target population is a group of individuals which a researcher wants to generalize the results of a study. For this study the population was the procurement, finance and ICT functions of Mombasa county government in the country. Due to the limitations of time and finance a case study of Mombasa County Government was chosen and the findings from it would be confidently applied to all other county governments.

3.4 Sampling Frame

Nachmias and Nachmias (2008) define a sampling frame as a list of all the items from where a representative sample is drawn for the purpose of a study. This study targeted all middle and senior level employees in the departments of procurement, finance and ICT of Mombasa County Government. These middle and senior staff was chosen because they are the ones who have the required information and they are the ones who work to implement e-procurement system in the county on a day to day basis.

According to data from Mombasa County government office, there are 45 middle and upper tier employees working in finance, ICT and procurement offices.

According to Cooper and Schindler (2006) every sample must have a non zero probability of selection.

This gives a sample size of 41 respondents. The study therefore involved 45 respondents in county government of Mombasa.

<table>
<thead>
<tr>
<th>NO</th>
<th>Department</th>
<th>Number of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Procurement</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Accounts Department</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>ICT/IFMIS Department</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>45</td>
</tr>
</tbody>
</table>

The researcher took a population of 45.

3.5 Sample Design and Sampling Techniques

Sampling is a procedure of selecting a part of population on which research can be conducted. This ensures that conclusions from the study can be generalized to the entire population. On the other hand, a sample refers to any group on which information is obtained. To obtain a sample size there are factors to be put into consideration such as-type of research design, method of data analysis and the size of the accessible population (Mugenda&Mugenda,2003).

The entire 45 employees were selected from the county headquarters. The respondents were informed about the intended study through e-mail and a personal visit.
Table 3.2 Sample size

<table>
<thead>
<tr>
<th>NO</th>
<th>Department</th>
<th>Number of Staff</th>
<th>Sample</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Procurement</td>
<td>18</td>
<td>16</td>
<td>39%</td>
</tr>
<tr>
<td>2</td>
<td>Accounts Department</td>
<td>19</td>
<td>18</td>
<td>44%</td>
</tr>
<tr>
<td>3</td>
<td>ICT/IFMIS Department</td>
<td>8</td>
<td>7</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>45</td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

3.6 Research Instruments

The researcher used questionnaires.

3.6.1 Questionnaire

Kothari (2007) defines a questionnaire as that consisting of a number of questions printed or typed in a definite order on a form or set of forms. The researcher used the questionnaire because of its low cost. Moreover, it is free from bias given those respondents had adequate time to give well thought out answers.

This method is quite popular especially when survey is used, as the researcher is interested in finding out the views, opinion and attitudes of the respondents regarding the perception of employees on internal factors affecting adoption of procurement-to-pay system in a public entity. Such information is collected rapidly through questionnaire. In this study, the structure of the questionnaire was such that it would elicit responses relevant to the study. The researcher constructed closed-ended and open-ended questionnaires which was administered to the employees.

3.7 Data Collection Procedures

Primary and secondary data was used. The researcher used semi-structured questionnaires which assisted in undertaking a complete and detailed understanding of the issue. The questionnaires consisted of both open and closed ended questions which were distributed in two sections.

The first section included general profile questions regarding the respondents. The second section consisted of questions which pertain to the area of study. The questionnaires were distributed to all members of the procuring entity departments and sub county procurement officers, head of ICT and IFMIS section.

The questionnaire was developed from an extensive review of literature and designed on the basis of the research questions. This was pre-tested with a group of academicians and practitioners. Completed questionnaires were collected directly from the respondents. This enabled the researcher to clarify any issues that was not clear to the respondents. The researcher then acquired a permit from the county to conduct the research. The permit was used to get permission from the County government so as to administer the questionnaires to respondents. Appointment dates was set with the concerned individuals about the actual days of data collection. The researcher distributed the questionnaires on the set days and was collected immediately after the exercise hence ensuring efficiency in data collection. Secondary data was used to collect information through a review of relevant literature on adoption of e-procurement in county governments as obtained from academic journals, books, magazines, newspapers and related online searches.

3.8 Pilot Study

A pilot test is the pre-testing or ‘trying out’ of a particular research instrument (Teijlingen & Hundley 2001). In this study, pilot study was conducted from among the procurement staff in the county government.

A total of 12 respondents were randomly chosen for pilot testing. These respondents bore the same characteristics as the study’s sample. The results from piloting assisted in restructuring the questions in the questionnaire that is not clear to the respondents. Validity is tested through expert opinion where the supervisor assisted the researcher to determine whether the questionnaire answers all the research objectives; thereby ensuring that relevant data is collected. The opinion of the expert (supervisor) plays a very significant role in determining the validity of the research instrument.

3.8.1 Validity

Validity aims at ascertaining the extent to which the research instruments collect the necessary information (Serem, 2013). Validity is concerned with accurate measurement of phenomena under investigation (Golafshani, 2003) and therefore
validity in data collection means that the research findings truly represent the phenomenon that the researcher claims to measure. Similarly, reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Mugenda & Mugenda, 2003) hence it addresses the extent to which the results of a study can be reproduced under similar methodology and instruments.

The questionnaire that was used in this study was pre-tested through a pilot study before actual data collection. This enabled a revision of the questionnaire, before actual data collection.

3.8.2 Reliability
According to Serem, (2013), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. The study will employ the test-retest method whereby the same data collection instrument was used more than once, with the same group of people, and the results compared statistically. According to Borg and Gall (1986), reliability is the level of internal consistency or stability of measuring device overtime. A measuring instrument is only reliable if it provides consistent results. In a research study, reliability coefficient can be computed to indicate how reliable data is. In order to test reliability of the instruments, internal consistence was applied using Cronbach’s alpha. The value ranges between 0-1 with reliability increasing with increase in value.

Coefficient of 0.6-0.7 is commonly acceptable rule of thumb that indicated acceptable reliability and a coefficient of 0.70 or more implies that there is a high degree of reliability of data (Mugenda & Mugenda, 2003).

3.9 Data Analysis and Presentation
Tromp and Kombo (2007) described data analysis as the process through which the data that has been collected was examined. It involves uncovering underlying structures, extracting important variables, detecting any anomalies and testing any underlying assumptions. It involves scrutinizing the acquired information and making inferences.

Orodho (2004) defines data analysis as a process of systematically searching and arranging interview transcript, field notes, data and other materials obtained from the field with the aim of increasing your understanding of them and enabling you to present them to others.

Once the questionnaire is collected, the mass of raw data gathered was systematically organized in a manner that facilitated analysis. The analysis was carried out in both quantitative and qualitative analysis. Qualitative analysis refers to assessment of data that is non-empirical.

It analyses information in a systematic way in order to come up with useful conclusions and recommendations. The detailed information is used to analyze and to establish patterns, trends and relationships from the information gathered.

Quantitative analysis on the other hand involves measuring numerical values from which descriptions are made. The researcher summarized the data using descriptive statistics to allow for meaningful assessment of the measurements using statistics. Data that was collected were organized, coded and entered directly into SPSS version 20.0. This statistical tool aids the researcher to perform summary statistics and graphical presentations of the results. The analysis employs the use of both qualitative and quantitative techniques. In quantitative analysis, the researcher used descriptive statistics such as frequencies, percentages and means to analyze the data. Thereafter, correlation data analysis was employed which involves computing a correlation.

4.1 Introduction
This chapter presents the research findings through data analysis and presentation of the research findings. The chapter begins with demographic data of the research responses, age and experience of staff working for the county government. The chapter presents the findings in line with research objectives and research variables demonstrating the relationship among the various variables, the data is presented in the form of tables, frequencies percentages, graphs and pie charts where possible and in line with research design and objectives.

4.2. Result of the Pilot study
Pilot study helps to point out any problems with the test instructions, instances where items are not clear and formatting and other typographical errors and/or issues. Once all issues with the test items and forms have been addressed, the tests are ready for large-scale field testing. The Cronbach’s alpha for the five respondents gave a result of over 0.7 implying that there was internal consistency within the questionnaires.
4.3 Background Information

4.3.1 Response Rate

Target population for the study was 45 and 41 respondents returned the questionnaires.

### Table 3: Response rate

<table>
<thead>
<tr>
<th>Population</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>41</td>
<td>91%</td>
</tr>
</tbody>
</table>

From table 4.1 above, the response rate was 91%. Mugenda & Mugenda 1999, states that a response rate of 60% is good, and above 70% is perfect. Since the response rate is 91%, it is excellent. According to Gay (1995) a response rate of 50% is adequate and therefore that of 91% is also adequate for data to be analyzed and interpreted.

4.3.2 Gender of respondents

The study sought out the gender of the respondents who were working in the various departments in the county government. Men were represented by 59% of the respondents while women were represented by 41%. This imply that more men than women are currently employed by the county government.

![Figure 2: Genders of Respondents](chart.png)

4.3.3 Age of Respondents

From the findings in table 3 below, years of age, 41.5% of the respondents were aged between 22 to 30 years of age, 29.3% respondents aged 31 – 55 years of age, 4.9% respondents aged 36 to 40 years of age, 12.1% respondents aged 41 to 45 years of age, 4.9% respondents aged 46 to 50 years of age and 7.3% are aged over 51 years of age. This implies that many employees in the county government are still young with 70.8 percent below age of 35 years.

### Table 4: Age of Respondents

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-30 Years</td>
<td>17</td>
<td>41.5%</td>
<td>41.5</td>
</tr>
<tr>
<td>31 - 35 Years</td>
<td>12</td>
<td>29.3%</td>
<td>70.8</td>
</tr>
<tr>
<td>36 - 40 Years</td>
<td>2</td>
<td>4.9%</td>
<td>75.7</td>
</tr>
<tr>
<td>41-45 Years</td>
<td>5</td>
<td>12.1%</td>
<td>87.8</td>
</tr>
<tr>
<td>46 - 50 Years</td>
<td>2</td>
<td>4.9%</td>
<td>92.7</td>
</tr>
<tr>
<td>Over 51</td>
<td>3</td>
<td>7.3%</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

4.3.4 Highest Education level of Respondents

Of the 41 respondents, 10% had Master’s Degree as their highest education level, 49% had degrees as their highest education level, 39% had diplomas as their highest education level, 2% had certificates as their highest education level and none had other qualification levels. This meant that 59% of the respondents had degrees or higher levels. Hardy and Williams (2011) found that high degree of re-engineering of the process is positively associated with the practices and processes implementation perspective of an e-procurement initiative in their study of barriers to e-government projects in Sub-Saharan Africa.
3.5 Work Experience

Of the 41 respondents, 27% have experience of less than 3 years, 46% have experience of between 4 to 7 years, 15% have experience of between 7 to ten years and 12% have experience of over 10 years. This shows that majority of staff working for the county governments have experience of between 4 to 7 years. The experience of the respondents in this case will influence the responses to the questionnaire whereby respondents who have more experience will have better responses in regards to the adoption of e-procurement. This also implies that majority of the respondents have served for long periods which translates to a good experience and consequently adequate knowledge on matters pertaining to process of procurement.

4.3.6 Procurement Method Commonly Used

From the figure, the most commonly used method of procurement from the procuring departments is the request for quotation with 33 respondents, 3 respondents commonly use open tendering, 3 respondents use restricted tendering while 2 respondents commonly use direct procurement.

4.3.7 Procurement Process preferred

From the above figure, majority of the respondents with 76% prefer the use of e-procurement compared to 24% of those supporting the use of manual procurement. This is well in line with Aberdeen benchmark researches by participants conducted in 2004 which showed that e-procurement produces cost reductions, higher productivity, and increased spend under management.

It simply stated that e-procurement is consistently delivering significant benefits to enterprises. Benchmark survey respondents also reported improved compliance, reductions in off-contract (“maverick”) spending, reductions in requisition-to-order cycles and costs, and percentage of total enterprise spend under management (Aberdeen Publication, 2005). The research also found that e-procurement not only reduces the cost of transactions, it also improves process efficiency and can reduce administrative and other costs. Manual (phone and fax) communications are reduced or eliminated, as are paper invoices and their associated costs.
4.2. Specific Information

4.5.1 Influence of technology on the adoption of e-procurement

One of the objectives the study was to establish the influence of technology on the adoption of e-procurement. The result are recorded in the table 4.2 below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compared to the manual system, e-procurement is more beneficial.</td>
<td>41</td>
<td>48.78%</td>
<td>36.59%</td>
<td>2.44%</td>
<td>12.20%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>There are enough ICT infrastructures for all the staff.</td>
<td>41</td>
<td>0.00%</td>
<td>12.20%</td>
<td>9.76%</td>
<td>63.41%</td>
<td>14.63%</td>
<td>100.00%</td>
</tr>
<tr>
<td>There is fast access to the internet &amp; IFMIS services at all time.</td>
<td>41</td>
<td>0.00%</td>
<td>2.44%</td>
<td>7.32%</td>
<td>63.41%</td>
<td>26.83%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Cost of implementation is high</td>
<td>41</td>
<td>21.95%</td>
<td>41.46%</td>
<td>24.39%</td>
<td>12.20%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

From the table above, 48.78% of the respondents strongly agree that e-procurement is more beneficial compared to manual system while 36.59% agree on the same. 2.44% of the respondents aren’t sure if the e-procurement system is beneficial while 12.20% disagree that e-procurement system is beneficial. Only 12.20% of the respondents agree that there’s enough ICT infrastructure for all the staff while 9.76% aren’t sure. Majority of 63.41% of the respondents disagree while 14.63% of the respondents strongly disagree that there’s enough ICT infrastructure for all the staff in the county government. 2.44% of the respondents agree that there is fast access to the internet & IFMIS services at all time while 7.32% aren’t sure of the same. Majority of the respondents 63.41% disagree that there is fast access to the internet & IFMIS services at all the time while 26.83% strongly disagree. 21.95% of the respondents strongly agree that cost of e-procurement implementation is high while 41.46% agree. 24.39% of the respondents aren’t sure if the cost of implementation is high, 12.20% disagree that cost of implementation is high.

The research concurs with study carried out by Wong and Sloan (2004) and quoted in Eadie et al (2007) that lack of ICT infrastructure is a challenge of e-procurement.

This was evident in most companies that lacked the relevant technology to carry out e-procurement. The same sentiments are shared with Harrigan (2008) whose research found out that technological integration, data quality, system to system integration, and ICT/technical issues have been identified as major challenges for many organizations when implementing e-procurement (Harrigan, 2008).

4.5.2 Influence of organizational culture on the adoption of e-procurement system.

The study sought to investigate how organizational culture affects effective adoption of the e-procurement system. The result are presented in Table 4.4 below.
Table 1 Organizational Culture influence on the adoption of E-procurement

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management is interested in the adoption of e-procurement</td>
<td>41</td>
<td>41.46%</td>
<td>12.20%</td>
<td>26.83%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Staff of the county government embraces the culture of information sharing</td>
<td>41</td>
<td>34.15%</td>
<td>24.39%</td>
<td>34.15%</td>
<td>4.88%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Staff In the county Government are educated on how to use the procurement software</td>
<td>41</td>
<td>39.02%</td>
<td>7.32%</td>
<td>51.22%</td>
<td>2.44%</td>
<td>100.00%</td>
</tr>
<tr>
<td>All staff in the county government have the learning ability to understand the system</td>
<td>41</td>
<td>7.32%</td>
<td>7.32%</td>
<td>24.39%</td>
<td>36.59%</td>
<td>24.39% 100.00%</td>
</tr>
</tbody>
</table>

Top management is interested in the adoption of e-procurement as strongly agreed by 19.51% of the respondents and 41.46% agreeing on the same. Of the respondents 12.20% wasn’t sure if top management is interested in the adoption of e-procurement while 26.83% felt that top management is interested in the adoption of the e-procurement system. 2.44% of the respondents strongly agree that staff of the county government embraces the culture of information sharing while 34.15% agree. 34.15% of the respondents disagree that staff at the county government embraces the culture of information sharing and 4.88% strongly believe that staff at the county government doesn’t embrace the culture of information sharing. 39.02% of the respondents feel that staff in the county Government are educated on how to use the e-procurement software while 7.32% of the respondents aren’t sure. Majority of the respondents with 51.22% disagree that staff in the county government have knowledge on the software while 2.44% strongly disagree on the same. Of the respondents, 7.32% strongly agree that staff working with the county government have the learning ability to understand the system and the same percentage agreeing on the same. 24.39% of the respondents aren’t sure of the learning ability by county government staff while 36.59% of the respondents disagree and 24.39% strongly disagreeing.

Most of the studies for example, Harrigan et al., 2008; Hawking & Stein, 2004) contended that lack of top management support was a barrier to e-procurement adoption and use. Senior managers should be part of e-procurement as per the research by Gunasekaran & Ngai, (2008). The extent to which senior personnel in an organization believe that e-procurement can positively affect the organization’s performance will influence their decisions on e-procurement adoption and use (Gunasekaran et al., 2009).

Eadie (2007) identifies the following notable challenges: Company culture and upper management support: Davila et al (2003) points out that resistance to change, lack of a widely accepted solution and lack of leadership, which are cultural, are some of the biggest barriers to the introduction of e-procurement within the public sector. To counter this problem, Eadie (2007) points out that a cultural change needs to take place prior to adoption of an e-procurement system. People need to be appointed and backed with full senior management support in order to effect this change. Adequate sensitization on the system will greatly reduce the resistance to the change. As pointed out by Eadie (2007), it is the cultural change brought about by senior management support which can enable e-procurement to be successfully implemented. Barceló (1999). Lack of e-procurement knowledge / skilled personnel is another barrier hindering smooth implementation of e-procurement. The older generation that has not kept up to the advances in IT related issues. This makes them rely heavily on traditional forms and means of procurement.

In fact, this forms the majority of those against change, especially when the change requires anything more that the training they already have. Therefore, as e-Procurement includes new technologies and changes in traditional procurement approaches, the need to train staff in procurement practices and the use of e-Procurement tools are critical to the success of an e-Procurement initiative (World Bank, 2003).

Successful implementation of e-procurement in an organization depends on the employees’ skills and
knowledge about e-procurement. It’s important for an organization to have employees with skills and knowledge about e-procurement to ensure the successful implementation of e-procurement (Gunasekaran & Ngai, 2008)

4.5.3 Influence of Standardization on the adoption of e-procurement system.

The study sought to investigate how standardization affects effective adoption of the e-procurement system. The result are presented in Table 7 below

<table>
<thead>
<tr>
<th>Statements</th>
<th>Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management take on the wider spread supplier bases</td>
<td>41</td>
<td>19.51%</td>
<td>41.46%</td>
<td>12.20%</td>
<td>26.83%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Staff of the county government take on simplified global procurement</td>
<td>41</td>
<td>2.44%</td>
<td>34.15%</td>
<td>24.39%</td>
<td>34.15%</td>
<td>4.88%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Top management strongly agree by 19.51% that there is a wider spread supplier base and 41.46% agreeing on the same. Of the respondents 12.20% wasn’t sure if wider spread supplier base would be achieved on adoption of e-procurement while 26.83% felt that wider spread supplier base would not be achieved on adoption of the e-procurement system.

2.44% of the respondents of staff of the county government strongly agree that simplified global procurement is a driving force for the adoption of the e-procurement while 34.15% agree. 34.15% of the respondents disagree that the simplified global procurement is not a contributing factor of e-procurement and 4.88% strongly believe that simplified global procurement doesn’t contribute to e-procurement adoption.

Most of the studies contended that wider spread supplier is a force that drives most companies in the adoption and use of e-procurement. Therefore all the organizations should be part of e-procurement as per the research by Gunasekaran & Ngai, (2008).

The extent to which senior personnel in an organization believe that e-procurement can positively affect the organization’s performance will influence their decisions on e-procurement adoption and use (Gunasekaran et al., 2009).

4.5.4 Influence of the e-procurement system.

Lastly, the study sought to investigate the influence of the e-procurement system.

The table below shows the findings

<table>
<thead>
<tr>
<th>Statements</th>
<th>Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-procurement leads to cost reduction</td>
<td>41</td>
<td>19.51%</td>
<td>36.59%</td>
<td>24.39%</td>
<td>14.63%</td>
<td>4.88%</td>
<td>100.00%</td>
</tr>
<tr>
<td>E-procurement increases productivity</td>
<td>41</td>
<td>21.95%</td>
<td>48.78%</td>
<td>19.51%</td>
<td>7.32%</td>
<td>2.44%</td>
<td>100.00%</td>
</tr>
<tr>
<td>E-procurement leads to compliance</td>
<td>41</td>
<td>21.95%</td>
<td>63.41%</td>
<td>12.20%</td>
<td>2.44%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>E-procurement system has enabled enhanced controls on procurement</td>
<td>41</td>
<td>41.46%</td>
<td>31.71%</td>
<td>21.95%</td>
<td>4.88%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

From the table above, 19.51% of the respondents strongly agree that e-procurement leads to cost reduction while 36.59% agree on the same. 24.39% of the respondents aren’t sure that e-procurement leads to cost reduction.

14.63% of the respondents disagree that e-procurement leads to cost reduction while 4.88% strongly disagree. In terms of productivity, 21.95% strongly agree that e-procurement increases productivity while 48.78% agree on the same. 19.51% of the respondents aren’t sure if e-procurement leads to productivity. 7.32% disagree that productivity is increased due to e-procurement.
while 2.44% strongly disagree. A high percentage of the respondents agree that e-procurement leads to more compliance while 21.95% strongly agree on the same. 12.20% of the respondents are not sure while 2.44% of the respondents don’t agree. 41.46% of the respondents strongly agree that E-procurement system has enabled enhanced controls on procurement while 31.71% agree on the same. 21.95% of the respondents aren’t sure if the e-procurement system has enabled enhanced controls on procurement. 4.88% doesn’t agree that e-procurement system has enabled enhanced controls.

Eadie et al (2007) argues that e-procurement allows sections of electronic documentation to flow through the supply chain; it improves the speed of returns and subcontractor price visibility. He further notes that since it is easier to communicate requirements in a quicker more accessible manner, it will result in a better understanding of requirements and due compliance besides allowing clients to gauge the state of the market by seeing how much interest is shown in the tender.

According to Eadie et al (2007), An organization which uses E-procurement has the following advantages: First, Price reduction in tendering: Empirical studies carried out Gebauer et al (1988) in the United States of America indicated that the two most important measures for the success of procurement processes are cost and time. In this method, there is no paperwork, postage fee and other costs associated with preparation and sending tender documents. It is also faster to send a document electronically as compared to the traditional method of sending tender documents through post office. It results to improved order tracking and tracing, for it is much easier to trace the orders and make necessary corrections in case an error is observed in the previous order.

Positive impact on procurement practices facilitates the development of operational tasks in the procurement function, which leads to continuous improving. As the operational tasks are performed more effectively the procurement performance is enhanced.

According to Davila et al., companies using e-procurement solutions report savings of 42 percent in purchasing transactions costs. Another research by Croom and Johnston (2003) found that e-procurement implementation can have up to 75% cost reduction in procurement process costs and 16 – 18% reduction in purchasing price for indirect purchases. The research by Davila et al. (2003) also identifies that companies using e-procurement gain additional control over maverick spending and can reduce the headcount supporting purchasing transactions. To support this Croom and Johnston (2003) found that e-procurement can have a major impact on compliance on many different levels of the procurement process: it supports managerial budgetary control; reduces data entering failures; offers greater transparency and accessibility to corporate wide spending; improves system reliability; and improves the access to managerial information.

### 4.5. Correlations and regression analysis

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Which procurement method is commonly used?</th>
<th>Which procurement process do you prefer</th>
<th>The influence of technology on the adoption of E-procurement</th>
<th>Compared to manual system, e-procurement is more beneficial</th>
<th>There are enough ICT Infrastructures for all the staff</th>
<th>There is fast access to the internet &amp; IFMIS services at all time</th>
<th>Influence of organization culture on effective adoption of e-procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>0.999</td>
<td>0.720</td>
<td>0.200</td>
<td>0.119</td>
<td>0.135</td>
<td>-0.286</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.995</td>
<td>0.999</td>
<td>0.866</td>
<td>0.635</td>
<td>0.779</td>
<td>0.750</td>
<td>0.492</td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
### Which procurement process do you prefer

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>.224</th>
<th>.1000</th>
<th>-.160</th>
<th>.447</th>
<th>-.621</th>
<th>.603</th>
<th>-.480</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.595</td>
<td>1.000</td>
<td>.705</td>
<td>.267</td>
<td>.100</td>
<td>.114</td>
<td>.228</td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

### The influence of technology on the adoption of E-procurement

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>.000</th>
<th>.000</th>
<th>1</th>
<th>-.771</th>
<th>.718</th>
<th>.468</th>
<th>.484</th>
<th>-.551</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
<td>1.000</td>
<td>.025</td>
<td>.045</td>
<td>.242</td>
<td>.224</td>
<td>.157</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### Compared to manual system, e-procurement is more beneficial

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>.072</th>
<th>-.160</th>
<th>-.771</th>
<th>1</th>
<th>.501</th>
<th>-.526</th>
<th>-.435</th>
<th>.795*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.866</td>
<td>.705</td>
<td>.025</td>
<td>.206</td>
<td>.181</td>
<td>.282</td>
<td>.018</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### There are enough ICT Infrastructures for all the staff

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>-.200</th>
<th>.447</th>
<th>-.718</th>
<th>.501</th>
<th>1</th>
<th>-.675</th>
<th>.000</th>
<th>.215</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.635</td>
<td>.267</td>
<td>.045</td>
<td>.206</td>
<td>.066</td>
<td>1.000</td>
<td>.609</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### There is fast access to the internet & IFMIS services at all time

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>.119</th>
<th>-.621</th>
<th>.468</th>
<th>-.526</th>
<th>-.675</th>
<th>1</th>
<th>-.134</th>
<th>-.185</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.779</td>
<td>.100</td>
<td>.242</td>
<td>.181</td>
<td>.066</td>
<td>.752</td>
<td>.661</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### Influence of organization culture on effective adoption of e-procurement

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>-.135</th>
<th>.603</th>
<th>.484</th>
<th>-.435</th>
<th>.000</th>
<th>-.134</th>
<th>1</th>
<th>-.241</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.750</td>
<td>.114</td>
<td>.224</td>
<td>.282</td>
<td>.100</td>
<td>.752</td>
<td>.565</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### Staff of the county government embraces the culture of information sharing

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>-.286</th>
<th>-.480</th>
<th>-.551</th>
<th>.795*</th>
<th>.215</th>
<th>-.185</th>
<th>-.241</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.492</td>
<td>.228</td>
<td>.157</td>
<td>.018</td>
<td>.609</td>
<td>.661</td>
<td>.565</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

### Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Compared to manual system, e-procurement is more beneficial, Which procurement method is commonly used?, Which procurement process do you prefer, The influence of technology on the adoption of E-procurement</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>
Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Compared to manual system, e-procurement is more beneficial, Which procurement method is commonly used?, Which procurement process do you prefer, The influence of technology on the adoption of E-procurement</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. All requested variables entered.
b. Dependent Variable: Cost of implementation is high

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.756</td>
<td>.571</td>
<td>-.001</td>
<td>1.489</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Compared to manual system, e-procurement is more beneficial, Which procurement method is commonly used?, Which procurement process do you prefer, The influence of technology on the adoption of E-procurement

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>8.850</td>
<td>4</td>
<td>2.213</td>
<td>.998</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>6.650</td>
<td>3</td>
<td>2.217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15.500</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Compared to manual system, e-procurement is more beneficial, Which procurement method is commonly used?, Which procurement process do you prefer, The influence of technology on the adoption of E-procurement

b. Dependent Variable: Cost of implementation is high

From the table the regression and correlation analysis were generated by the SPSS statistic derivatives. This was to depict the correlation and regression outcomes between variable that affects the e-procurement at the county government of Mombasa. The correlation indicates that there was a strong correlation between the use of E-procurement and cost minimization, efficiency and organization culture in the county government. The module summary indicated a standard an error of 1.486 and the mean square of 2.213.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the summary, conclusions and recommendations arising from the research while also providing areas for further research which couldn’t be covered by this study. The recommendations on those findings are discussed and areas of further research suggested. The findings were thematically based on the objectives of the study thus the summary, conclusion and recommendations in this chapter are consequently arranged in the same prose.

5.2 Summary

The study had statistically sufficient and relevant response rates of 91% from the target sample of 45 staff members working for the county government of Mombasa in procurement, ICT and accounts...
department. Furthermore, the study received responses from a dynamic set of respondents with regards to their age, level of education and work experience further ensuring richness and sufficient knowledge to deduce feasible patterns pertinent in the study. The regression and correlation analysis were generated by the SPSS statistic derivatives. This was to depict the correlation and regression outcomes between variable that affects the e-procurement at the county government of Mombasa. The correlation indicates that there was a strong correlation between the use of E-procurement and cost minimization, efficiency and organization culture in the county government. The module summary indicated a standard an error of 1.486 and the mean square of 2.213.

5.2.1 Influence of technology on the adoption of e-procurement

The study found that the more we embrace on the technology, the more we adopt e-procurement as the most preferred mode. E-procurement is deemed more appropriate to be used rather than the manual way. Study also found out that ICT infrastructure availability contributes to the adoption. This study also noted that availability of the IFMIS system, the platform used in e-procurement isn’t available at all times. The downtime of the system greatly impacts on its adoption. Implementation cost is high because the initial costs for the acquiring of the infrastructure is high thus impacts on the adoption.

5.2.2 Influence of organizational culture on the adoption of e-procurement system.

The study found that organizational culture tends to affect the adoption of the e-procurement system. Influence of top management and the culture of information sharing tend to influence effective adoption. The study found out that top management isn’t really interested in the adoption of the e-procurement system. From the study, majority of staff at the county government believes that there’s information sharing thus improves the on the adoption of the system. The study found out that majority of the staff aren’t yet conversant with the system and enough training is yet to be done.

5.2.3 Influence of Standardization on the adoption of e-procurement system.

The study found that increased standardization tends to affect the adoption of the e-procurement system. Quest for wider spread supplier bases and simplified global procurement are the driving forces for adoption of the e-procurement.

The study found out that the management quest for wider supplier base is high and are ready for the adoption of e-procurement. From the study, majority of staff at the county government believes that there are benefits of adopting e-procurement in the county thus improve the efficiency of their procurement system. The study found out that majority of the staff aren’t yet conversant with this system.

5.2.4 Influence of the e-procurement system.

The study found out that e-procurement system has more benefits than the manual system. The study also found out that e-procurement leads to cost reduction, increased productivity, compliance and enhanced controls on procurement. The study found out that there’s more to gain by e-procurement adoption than the old system.

5.3 Conclusion

The study found that larger percentage of staff working for the county government supports the adoption of the e-procurement system despite the challenges. Procurement function within the public sector has generally been characterized as being highly bureaucratic, paper based model with multiple hand-offs, process duplication, and highly time consuming before the introduction of IFMIS system. E-Procurement is now strongly advocated as offering a real and deliverable solution to substantially improve County Government spending, allow technology integration, and facilitate information management and sharing and to streamline the procurement function within Public Sector bodies.

5.4 Recommendations

Organization’s inability to handle change management, lack of training of employees on how to use the system, adoption of E-procurement at a slow pace, inadequate responding to queries by the system provider, suppliers not being ready to use this system and unfavorable payment when using the system both to the county government and the supplier. Besides, the county government should also advise suppliers to deliver supplies, services and works promptly, monitor closely inflated prices of goods, services and works. Besides, the county government should ensure that goods, services and works that are subs standard are not received.

The fact that e-procurement have been adopted to some extent is step in the right direction for the county governments since it implies that county governments are not only more receptive and agile
but also keen to enhance their competitiveness now more than ever before. The challenges identified in the study on the other hand shed light on the critical success factors that need to be put in place to ensure that the e-procurement policy is successful at least in the medium-term.

The following are recommendations of the study based on the findings.

### 5.4.1 Influence of technology on the adoption of e-procurement

County governments should do more on equipping staff with ICT facilities, and ensure that the system is available at all times. Despite implementation costs being high, county governments should invest on it since it will be more beneficial in the long run.

### 5.2.2 Influence of organizational culture on the adoption of e-procurement system.

The study found that organizational culture tends to affect the adoption of the e-procurement system. Influence of top management and the culture of information sharing tend to influence effective adoption. The study found out that top management isn’t really interested in the adoption of the e-procurement system. From the study, majority of staff at the county government believes that there’s information sharing thus improves the on the adoption of the system. The study found out that majority of the staff aren’t yet conversant with the system and enough training is yet to be done.

### 5.4.3 Influence of standardization on the adoption of e-procurement system.

County government should educate staff more on the benefits of e-procurement.

Top management should be encouraged more on the benefits of in adoption of e-procurement because quite a number of staffs appeared not to be aware of. Improved standardization in goods, services and works of the procurement is key success to any procuring firm.

### 5.4.4 Influence of the e-procurement system.

County Governments should fully implement e-procurement for better interactions with suppliers and make it easy for processing of documents which shall result into efficiency hence improved performance and better supplier satisfaction.

### 5.5 Areas for Further Study

The researcher suggests the following areas for further are as follows. First, the risks associated with the adoption of e-procurement. Secondly, impact of supplier’s ability to trade electronically. Thirdly, compliance level on the e-procurement platform compared to manual system and lastly effect of e-procurement on corruption in county governments.

### REFERENCES

[1] American International Journal of Contemporary Research Vol. 3 No. 8; August 2013, the Effect of E-Procurement Practices on Effective Procurement in Public Hospitals: A Case of KISII Level 5 Hospital By M.D Ateto, N.S Ondieki & Dr.W.Okibo


[3] A proposal document for the implementation of an e-Procurement initiative in Trinity College Dublin by Mr. Ben Hartnett &Mr. Brian Heffernan; August 2001


[14] Improving e-procurement compliance: The role of user perceptions By Dr Alistair Brandon-Jones Assistant Professor in Operations & Supply, Bath School of Management, Bath University Irish Computer Magazine – e Government Special - May 2001


[34] The critical success factors and challenges in e -procurement adoption among large
scale manufacturing firms in Nairobi, Kenya; European scientific journal May 2013 edition vol.9, no.13 James Mauti, MosePhd, Dr. James Muranga Njihia & Peterson ObaraMagutu

[36] Vinit Parida, Kittipong Sophonthummanaphan, Upasana Parida Journal on Understanding E-procurement: Qualitative Case Studies


Appendix I: Introductory Letter

Khalif Abdirahman Mohamed
School of Human Resource Development
Jomo Kenyatta University of Agriculture and Technology
P.O Box 62000-00200
Nairobi.
TEL: +254 723 657 123

LETTER OF INTRODUCTION
I am Khalif Abdirahman Mohamed, a postgraduate student pursuing masters of Science in procurement and logistics, school of human resource development, Jomo Kenyatta University of agriculture and Technology. I am currently conducting research in the area of procurement. The topic is; Factors contributing to the adaptation of e-procurement in the county government; a case study of county government of Mombasa government

The purpose of this letter is to kindly request you to respond to the name be attached questionnaire. The information you give will be treated confidentially and at no time your name referred to directly. The information given will only be used for academic purpose.

Thank you in advance for your time and cooperation

KHALIF ABDIRAHMAN MOHAMED

Appendix II: Questionnaire

Dear respondent, this questionnaire aims to collect information related to the impact e-procurement in the procurement process of county governments; a case study on County Government of Mombasa. This information given is for academic purpose only and will be treated as very confidential. Kindly fill the questions according to the instructions given.

Section A: Background Information
- **Gender:** Male ( ) Female ( )
- **Age**
  - 22-30 Yrs ( ) 31-35 Yrs ( )
  - 36-40 Yrs ( ) 41-45Yrs ( )
  - 46-50Yrs ( ) over 51 Yrs ( )
- **Level of education**
  - Certificate ( ) Diploma ( )
  - Degree ( ) Masters ( )
  - Other Qualification………………………………………………………………
- **Work experience**
Section B: Specific Information

Objective 1: The Influence of technology on the adoption of E-procurement

Kindly rate the extent to which you agree on the following statements in a scale of 1-5 where 1-strongly agree, 2-agree, 3- Not sure, 4- disagree, 5- strongly disagree. To what extent do you agree with the following statements ICT infrastructure usage in the county government?

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compared to the manual system, e-procurement is more beneficial.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are enough ICT infrastructures for all the staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is fast access to the internet &amp; IFMIS services at all time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of implementation is high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Objective 2: Influence of standardization on the adoption of e-procurement system.

Kindly rate the extent to which you agree on the following statement where 1-strongly agree, 2-agree, 3- Not sure, 4- disagree, 5- strongly disagree to the influence of top management on the e-procurement system.

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wider Spread Supplier Base is a driving factor for e-procurement adoption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplified Global Procurement is the main aim for e-procurement adoption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Objective 3: Influence of organizational culture on effective adoption of the e-procurement system.

Kindly rate the extent to which you agree on the following statement where 1-strongly agree, 2-agree, 3- Not sure, 4- disagree, 5- strongly disagree to the influence of top management on the e-procurement system.

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management is interested in the adoption of e-procurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff of the county government embraces the culture of information sharing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff In the county Government are educated on how to use the procurement software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All staff in the county government have the learning ability to understand the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Objective 4: Influence of the e-procurement system.

Kindly rate the extent to which you agree on the following statement where 1- strongly agree, 2- agree, 3- Not sure, 4- disagree, 5- strongly disagree to the influence of top management on the e-procurement system.

<table>
<thead>
<tr>
<th>Statements</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-procurement leads to cost reduction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-procurement increases productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-procurement leads to compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-procurement system has enabled enhanced controls on procurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section C: Work Plan

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission of draft proposal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation of final proposal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data collection and analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation of final research project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binding and submission of final research project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section D: Study Budget

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationery, typing, binding, photocopy</td>
<td>Kshs20,000.00</td>
</tr>
<tr>
<td>Subsistence (Transport, fuel, meals)</td>
<td>Ksh 30,000.00</td>
</tr>
<tr>
<td>Library and internet search</td>
<td>Kshs10,000.00</td>
</tr>
<tr>
<td>Telephone</td>
<td>Kshs 2,000.00</td>
</tr>
<tr>
<td>Research assistance in data collection 2persons for 7days @ Kshs. 2,000 per person per day</td>
<td>Kshs 28,000.00</td>
</tr>
<tr>
<td>Contingency expenses (10%)</td>
<td>Kshs 10,600.00</td>
</tr>
<tr>
<td>Total</td>
<td>Kshs100,600.00</td>
</tr>
</tbody>
</table>