INFLUENCE OF E-PROCUREMENT ON STRATEGIC SOURCING IN THE JUDICIARY OF KENYA

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, STRATEGIC MANAGEMENT OPTION, SCHOOL OF BUSINESS, KENYATTA UNIVERSITY

OCTOBER, 2016
DECLARATION

This research project is my original work and has not been presented for the award of a degree or other award in any other university. No part of this research project should be reproduced without authority of the author or/and Kenyatta University.

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I/We confirm that the work in this project was done by the candidate under my/ our supervision.

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Signature                      Date

Dr. Hannah Bula
DEDICATION

To my mother Joyce Nduku Mutoko
ACKNOWLEDGMENT

My appreciation goes to my supervisor Dr. Hannah Bula for the assistance, guidance and encouragement I received from her during the preparation of this project. Secondly, I acknowledge my colleagues and classmates for the inspiration and support. I also wish to thank Kenyatta University for making their facilities available for my utilization for the research. Finally, for the successful completion of this research project, I would like to thank the Almighty God for not only keeping me healthy but also for His sufficient grace that saw the completion of this project.
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# Abbreviations & Acronyms

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>FIFO</td>
<td>First In First Out</td>
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<td>SCM</td>
<td>Supply Chain Management</td>
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<td>CRJ</td>
<td>Chief Registrar of the Judiciary</td>
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<tr>
<td>IFMIS</td>
<td>Integrated financial management and information system</td>
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<tr>
<td>PPDA</td>
<td>Public procurement and Disposal Act</td>
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<tr>
<td>PPDR</td>
<td>Public Procurement and Disposal Regulations</td>
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<td>PPOA</td>
<td>Public Procurement Oversight Authority</td>
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**OPERATIONAL DEFINITION OF TERMS**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>Communication</td>
<td>Transfer/sharing of information through transmission</td>
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<td></td>
<td>Symbolic messages written or spoken.</td>
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<tr>
<td>Documentation</td>
<td>Keeping of records in form of files either manually or Computerized</td>
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<tr>
<td>Procurement Audit</td>
<td>Process of ascertaining the reliability and validity of Information used in procurement.</td>
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<tr>
<td>Procurement</td>
<td>Purchase of merchandise/ services at the optimum possible Total cost in the correct amount and quality.</td>
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<tr>
<td>E-procurement</td>
<td>Business-to-Business purchase and sale of supplies and Services over the internet.</td>
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<tr>
<td>Strategic sourcing</td>
<td>A way that organization can obtain the right goods, services and works while achieving value for money</td>
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ABSTRACT
The use of e-procurement is expected to enhance inter-organizational coordination and result in significant economic benefits. Many organizations that have implemented the software have proved to be beneficial. Even though the overall benefits of web-based systems are established, there is a need to understand the conditions that lead to different levels of benefits among different organizations, and even among different business units within the same organization. The government of Kenya recently introduced an E-procurement system (IFMIS) to help in faster processes and to facilitate fairness and equality in public procurement. The study therefore sought to analyze the influence of the E-procurement system on strategic sourcing in government institutions a case of the Kenyan Judiciary. The specific objectives was to determine the effect of e-tendering on strategic sourcing in the Judiciary of Kenya, to determine the relationship between communication and strategic sourcing, to assess the effect of electronic order processing on strategic sourcing and to establish the contribution of electronic documentation on strategic sourcing. The research was based on the theory of technical assimilation state and the institutional theory. The study utilized descriptive research design. The study targeted a population of 106 Judiciary procurement department employees. The sample size consisted of only 19 officers based at the Judiciary’s headquarters and who use the e-procurement system. The research was carried out on the headquarters officers using the census method as the sample size is small. Validity was established through construct validity while the instruments reliability was tested using the internal consistency methods in this case the Cronbach’s Alpha. The data was collected using questionnaires which were administered to the sample population. Descriptive analysis was used to analyze the collected data. At the end of the research, the findings should help the Judiciary of Kenya to understand the influence that E-procurement has on strategic sourcing and enable the organization to identify the key areas of the using the internet to perform the procurement function, the benefits and the areas of improvement. The study concluded that the emergence of the new Information and Communication Technologies (ICTs) has also offered promising opportunities as regards the efficiency, transparency and opening-up of public procurement. Technology advances such as the Internet and online proposal/bid processes have created competitive environments that may not previously have existed, but have caused current suppliers to be more responsive to an organization’s financial objectives. The study recommended that for e-procurement to improve sourcing, managers must believe in the benefits of the technology, opt for a comprehensive approach, define new relationships with vendors, train and support suppliers, and openly communicate with employees.
CHAPTER ONE
INTRODUCTION

1.1. Background of study

Procurement is the acquisition of goods and services. According to the Certified Institute of purchasing and supply, supply chain management is “the supply chain conceptually covers the entire physical process from obtaining the raw materials through all process steps until the finished product reaches the end consumer. Most supply chains consist of many separate companies, each linked by virtue of their part in satisfying the specific need of the end consumer.” The word supply chain and procurement are normally used interchangeably. It is the goal and desire of every organization to procure the right goods and services at the right price, from the right source, at the right quantity and quality and at the right time (Münch, 2015). The 5 rights of the procurement process bring in the aspect of strategic sourcing. Different organizations use different technics to acquire goods and services. Some methods are manual others are digital, whichever the case it is important to be strategic in order to meet the organizations needs and to attain value for money.

Global procurement is a way of enabling firms to pursue the full potential of worldwide sourcing through capitalizing on the best suppliers across the world. Globally, organizations coordinate and integrate complex networks for goods and services. In the Africa continent procurement has been improved through the use of technology. E – procurement started in Africa in the 1990s when it was launched as an easier way of conducting purchasing transactions (Porteous, 2010). Corporates in the African Continent have adopted E-procurement. Several governments have also moved to online procurement procedures like Kenya and Tanzania. Other African countries plan to use electronic procurement under the public procurement reform programs (Porteous, 2010). There are a lot of benefits that developing countries can get from the use of technology to perform procurement processes.

Locally in Kenya, a good number of the private sector has moved to the use of the internet and systems to perform the procurement function. The Kenyan Government launched the E-procurement module for the public institutions in August 2014 through
the National treasury (Mutegi, 2014). The main aim of launching the system was to ensure that there is prudent use of the public financial resources. The online system promotes transparency and credibility on the use of public resources.

1.1.1 E-procurement

E-procurement is the term used to describe electronic methods of conducting business transactions. The 'e' in e-procurement stands for electronic. E-procurement can be used in every stage of the process. It can begin with the actual sale coming through to the purchaser and end with the customer's invoice and payment.

Ordóñez (2013) with the advent of the Internet, many businesses now sell only via computer technology. It is an excellent way for businesses to cut overhead costs and reach a larger customer base. E-procurement is not only beneficial for businesses; customers can also find this method of purchasing advantageous. They have a wider choice of merchandise and can shop without leaving their home. With a little web research, they can easily find the lowest price when purchasing goods.

Specific benefits for a business using e-procurement include modernization, which brings the workplace up to date with the latest marketing and selling methods. It can also help departments manage their supply chain more efficiently (Porteous, 2010). It is also a strategic way of increasing the efficiency in the procurement processes.

Business to business e-procurement started in the 1970s with Electronic Data Interchange (EDI). With the widespread adoption of Information and Communication Technologies (ICTs) and especially the Internet over these past years, e-commerce started to grow exponentially. The Internet-enabled consumers to take part in the growing business to consumers (B2C) market while some countries such as the United States, Canada and the European Union are promoting business to government (B2G) e-commerce. A growing number of government agencies in the US and Canada are beginning to develop their own e-procurement systems to improve and enhance their business processes.

E-procurement, at the government and corporate level, is expected to be the fastest growing segment in E-business over the foreseeable future. It is a niche market that is most amenable to policy decision and also one which can have a major impact on the
economic viability. Institutions are computerizing to improve on their efficiency and
effectiveness. The government of Kenya is currently implementing the E-procurement and
E-tendering using the integrated financial management information system (IFMIS).
This is in a bid to streamline the processes and strategically improve the process while
curbing corruption and attaining value for money.

1.1.2 Strategic Sourcing
Strategic sourcing is a procurement process that helps an organization to continuously
improve and evaluate its procurement practices. The advantages of strategic sourcing
include sharing of best practices, cost savings, the access to new suppliers,
standardization of prices, and improvement in the operational efficiency among others
(Booth, 2010). The objective of strategic sourcing includes to active cost reductions,
reduction of waste and improvement of the process among others. One of the best
practices of strategic sourcing is to make technology do the work (Sollish & Semanik,
2011). The use of technology should help an organization to achieve its sourcing needs
better than a manual system.

Strategic sourcing helps organizations to optimize performance, increase the achievement
of socio-economic acquisition goals, minimize prices, evaluate total life cycle
management costs, improve vendor access to business opportunities, and otherwise
increase the value of each dollar spent. Strategic sourcing is a proven best practice and
reflects how the Department acquires goods and service.

1.1.3 The Judiciary of Kenya
The Judiciary of Kenya is the institution established under Chapter 10, Article 159 of the
Constitution of Kenya. It is one of the state organs charged with the dispensation of
justice. Besides the core mandate of the Judiciary, the organization has the administrative
role which includes functions like finance, procurement, human resources among others.
The judiciary of Kenya being a public institution performs its procurement under the
public procurement provisions (About the Judiciary of Kenya, 2016). The institution, just
like the rest of the public organization has adopted the E-procurement launched by the
government in 2014.
1.2. Statement of the problem

Assessment of the contribution of strategic sourcing in public procurement is very important so as to help organizations attain value for money and be successful in the entire procurement procedure. There is the need to understand the link and effect of the E-procurement on the attainment of strategic sourcing. The public sector needs to be accountable to the citizen so it crucial to employ procurement practices that ensure proper management of public resources. The public procurement act and regulations may not specifically talk about strategic sourcing. Therefore, procurement officers and management need to consider an internal strategic sourcing policy in order to meet the objectives.

The Government of Kenya has been using manual procurement systems to acquire goods and services. There have been several complains and cases of procurement malpractice in the public sector over time. The government introduced the E-procurement system to facilitate efficient procurement practices, get value for money, and creates a level ground for suppliers and to curb malpractices. The government’s intention while launching the system was to improve the process and to make practice strategic sourcing (Mutegi, 2014).

Some governors in Kenya complained about the use of the E-procurement and called on His Excellency the President to drop the E-procurement system. The governors complained that the systems were frustrating development in some counties and that the IFMIS system was an avenue to corruption (Barisa, 2015). So far there had not been any written feedback on the use of IFMIS from the Judiciary of Kenya. There is no research on whether the E-procurement is helping the institution to achieve strategic sourcing. The proposed study is intended to find out if the e-procurement system has any influence on strategic sourcing in the public institution by carrying out a research on one of the public institutions, the Judiciary of Kenya.
1.3 Objectives of the study

1.3.1 General objectives
The general objective of the study was to determine the influence of E-procurement on strategic sourcing in the Judiciary of Kenya

1.3.2 Specific Objectives
The specific objective of this study was to

i. To determine the effect of e-tendering on strategic sourcing in the Judiciary of Kenya
ii. To determine the relationship between electronic communication and strategic sourcing
iii. To assess the effect of electronic order processing on strategic sourcing.
iv. To establish the contribution of electronic documentation on strategic sourcing.

1.4 Research Questions

i. How does e-tendering affect strategic sourcing in the Judiciary of Kenya?
ii. In what ways communication affect strategic sourcing in the Judiciary of Kenya?
iii. How does accuracy in order processing affect the strategic sourcing in the Judiciary of Kenya?
iv. How does documentation contribute to strategic sourcing in the Judiciary of Kenya?

1.5. The scope of the study
The research concentrated on an organization that utilizes e-procurement as part of its operations. In this case, The Judiciary of Kenya was taken as the case study because it has a number of operations with the core business being the dispensation of justice. The organization is an arm of government that operates in all parts of the country but the main focus will be in the headquarters in Nairobi where most of the major sourcing activities take place. The judiciary is responsible for administering justice but it requires other operations to help in the delivery of its mandate. These operations include finance, Human resources, information technology and procurement among others.
The scope of the study included the supply chain management directorate based at the Judiciary’s headquarters. The department is located in Nairobi at the Central Business District at the Supreme Court Building. The target population scope is of 106 employees who were officers in the procurement department. However, the study specifically focused on 19 officers at the headquarters. The officers in the Judiciary’s headquarters are the only ones in the entire supply chain directorate country wide who utilize the e-procurement system.

The reason for selecting this institution is because the researcher was able to access information and a reliable contact to help in data collection. The organization has embraced the e- procurement module. It would make a good case to consider in trying to find out the benefits of the systems and if they promote strategic souring.

1.6. Significance of the study

The study provided important information to various stakeholders. The Management at the Judiciary got detailed information on the e-procurement in the organization which will form a basis for continuous improvement and change if any. It served as a barometer upon which various public institutions can measure the output of their computer systems and the level of effectiveness. The study also helps the management in public institutions in incorporating digital ways of making decisions that help in the improvement of performance. The results of the study contributed to the understanding of the effects of computerization in government institutions. The study help in the incorporation of the system in the existing management practices to promote effective and efficient operations of public institutions.

The study generated information and recommendation that help organizations plan for improvement of their computer system as well as come up with policies that govern effective use of electronic means to improve processes. Based on the findings of the study, organizations may have to adopt new or alter some of the policies to accommodate the provisions of the procurement practices in order to promote strategic sourcing. The study helps other researchers to identify the gaps that may not be covered in the research and can form a basis of other studies. It also helps in providing information to scholars.
when carrying out related studies. The study provides other areas which scholars and researchers may use for further research.

1.7 Limitation of the study

The lack of full information disclosure by procurement officers may expose a great limitation. Some of the employees were unwilling to provide full details for fear of victimization. This challenge was addressed by explaining to the officers that the research is purely for educational purpose and respondent’s privacy was guaranteed. The researcher produced a letter of identification issued from the university to support the research study.

There could be cases of some respondents may not adherence to the timelines for submitting the questionnaires, others may give inaccurate data that could undermine the outcome of the research. To counter this challenge, the researcher convinced the respondents on the importance of the study, which helped to reduce the magnitude of the limitation. The working environment at the institution was a challenge to some employees which resulted to lack of sufficient time to respond to the questionnaires. The researcher tried to provide reasonable time for responding to the questionnaires.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter seeks to find out or determine what other writers have said about the influence of e-procurement in most firms, the chapter seeks to go deeper and further to determine the effect e-tendering, communication, documentation, accuracy in the ordering process as put by other writers.

2.2 Theoretical Review

2.2.1 Theory of technical assimilation
The theory of technical assimilation states about the extent to which the use of technology diffuses into the organizations processes and projects and becomes part and parcel of the daily operations (Pani, & Agrahari, 2007) In relation to e-procurement assimilation is the extent to which the organization utilizes e-procurement technology including e-tendering and software to be part of the procurement processes and be incorporated in the practices in the facilitation of transactional and strategic procurement activities. The theory best explains the objective on the electronic order processing and documentation as the two processes get assimilate into an electronic technical methods. The two objectives involve two processes that are carried out on a daily basis at the work place.

2.2.2 Institutional theory
The institutional theory has been used in the assimilation of e-procurement in organization. The theory is about the way the human imposed constraints shape the interactions human interactions, In relation to e-procurement, the theory can be used to show how the change from the manual procurement process change the behavior of the affected agents in this case the government institutions (Global Sourcing Workshop, In Oshri, In Kotlarsky & In Willcocks, 2013). The theory will be used as a basis to expound on the objective of determining the effect of e-tendering on strategic sourcing and the relationship between communication and strategic sourcing. This is because the
institutions are trying to move from the manual systems to electronic ways of handling the sourcing function

The use of internet and e-commerce has increased and advanced globally over time leading to global networking of the economy. The institutional environment influences the utilization of the interactive technologies. It is worth noting that the environment include the suppliers among other key players (Gibbs & Kraemer, 2004). Institutions are moving away from the manual ways of operation and adopting technology as a method of operation.

2.3. Empirical review

A couple of researchers have previously researched on e-procurement and its contribution to the supply chain as a whole or on some parts of the procurement system. From the studies carried out e-procurement has helped several organization to better their procurement processes. Some studies show that there is indeed a link between e-procurement and improved performance in terms of sourcing. For Instance Wangui, (2013) says that there is a positive indicator of E-procurement’s contribution to the supply chain as a whole. Further, the companies that adopt E-procurement stand a better chance of improving their procurement processes. There is a notable and rapid change in technology that companies need to adopt and incorporate in the procurement process in order to have a successful supply chain system. From the conclusion of the study, companies need to give priority to e-procurement applications to pave way for an effective supply chain.

Croom & Brandon-Jones (2007) studied the impact of e-procurement based on the experiences from implementation in the UK public sector. The study shows that the introduction of the internet for use in the business world has been a catalyst for major operations in the organizations. The study sort to evaluate the validity of the early e-procurement literature that forecasted on significant improvements in procurement costs, an improving status of the purchasing function, and changes to the structure of supply markets. The study provides a gap and a suggestion for a future research on e-
procurement adoption to address the internal service quality attributes of e-procurement processes.

A study by Puschmann & Alt (2005) shows that although e-procurement has substantially streamlined the procurement and coordination processes for indirect goods, many companies operate multiple e-procurement solutions. For integrated procurement solutions, the research recognizes the need of an overall procurement strategy and organization, an alignment of various e-procurement solutions along the procurement process and the need for integrated system architectures. The study was conducted using a two-part qualitative approach; it first summarized the studies of the results of a benchmarking study that was conducted by a consortium of 12 multinational companies. During the benchmarking Questionnaires and telephone based interviews were conducted. A list of five successful companies was selected for a detailed analysis. It then drew together the success factors identified in the benchmarking study and mapped them against the successful practice companies.

The concept of the e-procurement solutions has also been described broadly in the study. However, studies on how companies use these e-procurement solutions and what factors are critical to their implementation are only emerging. This research aimed to explore the introduction of e-procurement systems and their contribution to the management of indirect goods supply chain (Puschmann & Alt, 2005).

There is an increasing number of public sector that are adopting e-procurement to tap the benefits which include the reduction in costs through increased efficiency in the procurement function (Engström, Wallström & Salehi-Sangari, 2009). The purpose of the paper was to assess the implementation of e-procurement concept within Swedish government authorities during the period between 2001 and 2008. A qualitative research approach was applied, and a longitudinal study was conducted. Structured personal telephone interviews with 15 central government agencies were used in data collection.

The results of the study showed that the implementation of e-procurement had developed substantially during past years, but Swedish government authorities had still not yet adopted and utilized e-procurement to its full potential at the time of the study. The E
procurement benefits and challenges were identified. The implementation and use of e-procurement were also found to have an impact on the buying behavior, i.e., on the buying process, the selection criteria and the buying center.

2.3.1 Electronic Order processing

Most supply chain projects to date have focused on reducing operating costs through inventory reductions, lower transaction costs and improved supplier management Industry. Leading companies are transforming their supply chain to be demand driven, with key objectives to grow revenue and profits. A simple ordering process involves; Information gathering which happens if potential customer does not already have an establishment with sales or marketing functions of suppliers of needed products and services. There is also Supplier contact occurs when one or more suitable suppliers have been identified, requests for quotations, request for proposals, requests for information or request for tender may be advertised or direct contact may be made with suppliers (Kurbel, 2012).

E-procurement software allows purchasers to place orders directly into a supplier order-entry system. This has proved to be quite advantageous to organizations through immediate visibility to back ordered items, faster order input time which contributes to reduced order cycle times, ability to batch multiple items from multiple users on a single online order.

2.3.2 Electronic Documentation

As stated by Collins, (2000) documentation is the proper keeping of records for future reference regarding issues and dispatch. All or most documents are filed in box files. Some of the documents include requisition forms, copies of local purchase order (LPO), electricity bills; dispatch records are also kept for example the invoices for various transactions. The purpose of keeping records is easy retrieval whenever needed and also for payment. This reduces delays that may not be cost effective and may lead to buying the same items in stock of proper documents that clearly shows what stock is in store and what needs to be ordered. Therefore proper documentation is cost reduction measure.

Baily, (1998) said documentation is done as per the organization ISO certification programme. He continued to say that organizations are working hard to reduce the paper
based transaction hence introduction of using e-procurement. Promoting transparency and accountability are pre-requisites for safeguarding integrity and preventing fraud in procurement. E-procurement is recognized as a strategic policy instrument to provide goods and services that meet the needs of the organization. Through documentation, companies participating expect to be able to control parts inventories more effectively.

Without access to good records, officials are forced to take decisions on an ad hoc basis without the benefit of institutional memory (Piggot, 1994). It is a hard task to prove fraud in procurement, meaningful public audits cannot be carried out and government actions are not open to review if documentation is not properly done (PPOA, 2010). According to PPOA (2007) while the legal frame-work establishes norms for the safe keeping of records and documents related to procurement transactions and contract management, compliance levels in this area remain low.

2.3.3 Electronic Communication

Silas, (1988) Communication refers to the transfer or sharing of information through transmission of symbolic messages written or spoken. Communication is the giving, receiving or exchanging information, opinions or ideas by writing, speech or visual means. Ball, (2003) the function of communication is to ensure that every member of the organization knows what is expected of them. Good communication is critical in ensuring co-ordination and control of individuals, groups and departments.

E-procurement is concerned with the flow of products and information between supply chain members’ organization. Improved channels of communication have enabled organization to avail information easily at their premises. Managers need to understand that if a proper mode of communication is enhanced within the supply chain organization, then effective information sharing can be achieved between suppliers and customers because they share a common database. In order to achieve efficiency in strategic sourcing the communication needs to be clear, accurate and consistent. E-procurement provides a platform for faster communication with the suppliers.
2.3.4 Electronic tendering

E-tendering is the use of the traditional tendering process using electronic means. E-tendering allows an easy and accurate cost planning as well as storage of historical data through the use of the software. In as much as e-tendering comes with a couple of benefits, it is not an easy task to transit from the manual paper based system to the electronic one. E-tendering helps in the reduction of costs like the cost of paper, the administration cost of issuing the tenders and is a strategic cost saving method (Chartered Institute of Building, Great Britain, 2009). The processes entail distributing of the bidding documents to the suppliers electronically through a secure web based system. In due course the bidders respond or return the documents the same way.

2.3.4 Strategic sourcing

Strategic sourcing is one of the ways that organization can obtain the right goods, services and works while achieving value for money. All government institution operates under specified or defined procurement processes or procedures. There are various strategic sourcing elements that help and can help public institutions to effectively and efficiently acquire goods and services. Strategic sourcing is a way of implementing best practices in public procurement and maintaining better relationships with suppliers. Strategic sourcing is critical for firms practicing the principles of supply chain management (Talluri & Narasimhan, 2004). It specifically deals with managing the supply base in an effective manner by identifying and selecting suppliers for strategic long-term partnerships, involving in supplier development initiatives by effectively allocating resources to enhance supplier performance, providing benchmarks and continuous feedback to suppliers, and in some cases involving in supplier pruning activities.

2.4 Summary of the literature review and Research Gaps

From the literature review, it is clear that the management should understand importance of e-procurement to an organization. The review came up clearly with effects of electronic documentation, e-tendering, accuracy in order processing and strategic sourcing, and a lengthy discussion on how each factor affects strategic sourcing. It is
evident from the study carried out that as the organization grows due to changing times, increased customer base, the advancement in technology and distribution capacity, the organization needs to improve on its supply chain management which in essence involves the planning and management. In the current times procurement need strategies to achieve value for money.

One of the research gaps in the area of study is the effects of the e-procurement process on the suppliers. This proposal leans on the buyers side (the Judiciary). It may be important to research from the suppliers side how the process affects their operation or the sourcing process form their end.

Another gap is probably the benefits that the government of Kenya hopes to or may acquire from digitizing the procurement processes. It would also be important to carry out a study on the security of the e-procurement system.
Conceptual Framework
The conceptual framework indicates the relationship between the dependent and the independent variables

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</tr>
<tr>
<td>• Shorter processes</td>
<td>• Faster processes</td>
</tr>
<tr>
<td>• Minimize waste</td>
<td>• Value for money</td>
</tr>
<tr>
<td>• Eliminate corruption</td>
<td>• Transparency</td>
</tr>
</tbody>
</table>

| **Electronic Communication**                    |                                |
| • Faster communication                          |                                |
| • Easy access to information                    |                                |

| **Electronic Documentation**                    |                                |
| • Safer storage methods                         |                                |
| • Utilization of space                          |                                |
| • Faster retrieval of documents                 |                                |

| **Electronic Order Processing**                 |                                |
| • Automated systems                             |                                |
| • Minimized errors                              |                                |
| • Facilitates tracking of the process           |                                |

Figure 2.1: Conceptual framework of variables
CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Introduction
This chapter provided a detailed description of how the research work was conducted. It comprised of the choice of research area to be covered, the sample size and how the sample size was selected; various instruments that the researcher was used to collect data, how the data collected was analyzed in order to come up with the expected solution.

3.2. Research design
Research design can be defined as the strategy that is used to integrate the various components of a study in a coherent and logical manner thus ensuring effective addressing of the research problem (Creswell, 2013). This research was used the descriptive research design which describes phenomena with a subject population. In this case the population was the Procurement officers in Judiciary Headquarters in Nairobi. The study is meant to evaluate the influence of electronic procurement process on strategic sourcing in the government institutions.

3.3. Target population
Target population is the group of people to whom the results of the research apply; it is composed of all the elements that possess the information sought by the researcher (Rosendo & Pérez, 2013). The target population comprised of 106 procurement officers in the entire Judiciary (Human Resource Data, HQ, and Judiciary of Kenya). However, the outside court stations was not considered for the research as only the officers based at the headquarters use the e-procurement system. The court stations still utilize the manual procurement systems. Therefore out of the total number of the officers the research focused on only 19 employees from the procurement directorate of Judiciary at the Headquarters in Nairobi (Human Resource Data, HQ, and Judiciary of Kenya). This is the total number of all the officers in the directorate at the Headquarters of the Judiciary of Kenya.
3.4.1 Sampling Techniques
Since the population of the study is too small the study adopted a census approach by using all the possible respondents in the sample. In the census approach, the researcher surveys the entire realistic population without drawing a random sample from the population (Hair, Celsi, Money, Samouel, & Page, 2011).

3.4.2 Sample size
The sample size was 17% of the total population of the procurement officer at the Judiciary. This is because out of the target population of 106 procurement officers in the judiciary only 19 of them which is 17% of the total target population use the e-procurement system. The 19 officers based at the headquarters where the major procurements took place participate in the research.

3.5. Data collection Instruments
Data collection instruments are the devices used to collect data. This entails the research instruments or methods used to collect data or information required for the research project. The research conducted through the use of questionnaires. The questionnaires comprised of structured questions for the researcher to get varied responses.

3.6 Validity and Reliability
3.6.1 Validity
Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Kim, 2009). This means that the instrument must measure what it claims to measure. The instrument must be relevant with respect to the content as expressed by the research objectives. Validity is the degree to which a test measures what it purports to measure. All assessments of validity are subjective opinions based on the judgment of the researcher. The pilot study was used to help improve face validity of the instruments. Content validity of the instruments was improved through expert judgment. As such, the researcher sought assistance of his supervisors, who, as experts in research, and helped to improve content validity of the instrument.
3.6.2 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Baumgarten, 2013). Reliability of a research instrument refers to the degree of consistency or whether it can be relied upon to produce the same results when used by someone else or when used again and again on the same respondents. The pilot study enabled the researcher to assess the clarity of the questionnaire items so that those items found to be inadequate or vague was modified to improve the quality of the research instrument thus increasing its reliability. Cronbach’s alpha was used to measure internal consistency/reliability of the instrument. Cronbach’s alpha is the most common measure of internal consistency (Laerd, 2009).

Through the use of software like SPSS, a researcher can test the degree of internal consistency of a group of self-report items by computing Cronbach α statistic (Andrew, Pedersen & McEvoy, 2011). The value of Cronbach α measure of reliability may range from zero to one. Some Researchers deem values in the range of 0.60 to 0.70 are to be the lower limit of acceptability.

The Values of the Alpha coefficient range from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous i.e., questions with two possible answers and/or multi-point formatted questionnaires or scales. The higher the score, the more reliable the generated scale. According to Mugenda, (2008) the commonly accepted rule of thumb is a Coefficient of 0.7 which indicates acceptable reliability and 0.8 or higher indicated good reliability.

3.7 Data analysis

Data analysis involves arranging data and breaking it into smaller units. It is working with data, organizing it, breaking it into manageable units, synthesizing it, search for tables, pie charts, and graphs, discovering what is important and what is to be learned, and highlighting what to inform others (Rosendo & Pérez, 2013). Descriptive statistics and inferential statistics were used in analyzing and presenting data in form of frequency distribution tables along with explanation of the research findings. Descriptive statistics
helps to summarize data in a meaningful way. The inferential statistics were just regression models. It therefore enables the researcher to present the data in a more meaningful way, which facilitates simpler interpretation of the data.

### 3.8 Ethical considerations

The research project was conducted in an ethical manner; the data obtained was purely for the research purposes and was held in confidentiality. The researcher protected the respondents, upholds their privacy and obtained their consent while collecting data.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction
The description of the findings of the study in terms of background information and specific research findings were discussed in this chapter. Descriptive statistics were used to discuss the findings of the study. The study findings were presented on to analyze the influence of E-procurement on strategic sourcing in the Judiciary of Kenya. Data was gathered exclusively from the questionnaire as the research instrument.

4.2 Response Rate
The response rate was 100% of the sampled population. The study targeted a population of 106 employees who were officers in the procurement department from which a sample size of 19 respondents were selected. Census method of data collection was used. All the questionnaires distributed were fully filled and returned. According to Mugenda and Mugenda (2003), a response rate below 40% is unreliable, a response rate of 40%-50% is poor, a response rate of 50%-60% is acceptable for analysis and reporting, a response rate of 60%-70% is good and a response rate of 70%-80% is very good while response of over 80% is excellent. The response rate was excellent.

4.3 Reliability Test
Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 2003). During the pilot study, two repeat mailings of the instrument were carried out to improve the overall response rate before sending the actual instrument to allow for pre-testing of the research instrument. Cronbach’s alpha for each value was established by the SPSS application and gauged against each other at a cut off value of 0.7 which is acceptable according to Cooper and Schindler (2008). According to Table 4.1 all the values were above 0.7 which concludes that the data collection instrument was reliable.
Table 4.1: Reliability test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>No of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-tendering</td>
<td>.7937</td>
<td>7</td>
</tr>
<tr>
<td>Electronic Documentation</td>
<td>.7739</td>
<td>4</td>
</tr>
<tr>
<td>Communication</td>
<td>.7838</td>
<td>5</td>
</tr>
<tr>
<td>Electronic Order processing</td>
<td>.7763</td>
<td>5</td>
</tr>
</tbody>
</table>

4.4 Background Information

4.4.1 Gender of the Respondents

The researcher sought the information about the distribution of gender to establish gender presentation in the study. Gender was itemized as male and female, it was established from the study that 56.4% of the respondents were male and 43.6% were female, this is shown in table 4.2. This response indicates that there is a near equal distribution of gender. In addition it shows that both genders were well involved in this study and thus the finding of the study did not suffer from gender bias. Therefore this indicates that the judiciary in Kenya engages in gender equality in their employee recruitment and hence the information given in the study is reliable and effective in given recommendations.

Table 4.2: Gender of the Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>56.4</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>43.6</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.4.2 Age of the Respondents

The study sought to find out the age distribution of the respondents. Age plays a role in gaining experience and skills in procurement practices. It was established from the study...
that 45% of the respondents are between 18-30 years, 36% are between 31 and 40 years, 15% are between 41 and 50 years, whereas 4% of the respondents were between 51 and 60 years. This is shown in figure 4.1 below. The findings indicate that age of the respondents were evenly distributed in all the age groups and therefore the respondents had a good knowledge and were old enough to give correct information.

Age is paramount in employee efficiency as it goes with experience. Hence need to know the age of the respondent. This is to relate it with supply chain management decision making as a young employee is always at the explorer age and wants to know more as the older age is settled with experienced which leads to improved performance. Apparently therefore majority of the respondents are aged between 18 and 30 years hence a prime age for energetic and industrious work force.

![Figure 4.1: Age of the Respondents](image)

4.4.3 Highest Level of education of the Respondents

The study sought to find out the highest level of education of the respondents. Education is paramount in enabling the respondents to conceptualize issues related to low cost housing. It was established from the study that 37% of the respondents had bachelor’s degrees, 35% of the respondents indicated that they were masters degree holders, 21%
had diploma. This implied that most of the respondents had attained higher level (bachelors and masters) of academic qualification and thus had acquired recommendable qualifications to work effectively at the housing corporations. This finding is as observed by Katz (2002) that those with higher education are more successful as they have more knowledge and have modern managerial skills making them more conscious of the reality of the business work. This is shown in Figure 4.2 below.

![Figure 4.2: Highest Level of education](image)

**4.5 E-Tendering process**

The study sought to find out the respondents’ extent of agreement or disagreement with statements regarding electronic tendering process at the Judiciary of Kenya. A scale of 1-5 was used. The scores “strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale. The scores of ‘Not sure’ were represented by a score equivalent to 2.6 to 3.5 on the Likert. The score of “Agree” and “Strongly disagree” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale.

The study findings showed that, majority of the respondents strongly agreed that e-tendering has influenced operational performance of supply chain management in the Judiciary as shown by a mean score of 4.847 and a standard deviation of 0.228, that e-tendering has affected sourcing process in the judiciary as shown by a mean score of 4.565 and a standard deviation of 0.376, that the organization achieves value for money through e-tendering as shown by a mean score of 4.782 and a standard deviation of 0.364,
that e-tendering is safer for the organization as shown by a mean score of 4.652 and a standard deviation of 0.233, that e-tendering is faster than manual tendering as shown by a mean score of 4.956 and a standard deviation of 0.134, that e-tendering is more cost effective as shown by a mean score of 4.978 and a standard deviation of 0.374, while some respondents agreed that e-tendering is an important factor in strategic sourcing in the organization as shown by a mean score of 4.065 and standard deviation of 0.526. The study showed that e-tendering is safer, affects sourcing process, and achieves value for money, faster and cost effective to the organization. Similarly, Chen, (2004) echoes that e-tendering provides a centralized process that helps organizations to reduce traditional tendering costs, improve efficiencies and accountability as well as increase supply chain performance.

Table 4.3: E-procurement’s Practices at the Judiciary of Kenya

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std_Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-tendering has influenced operational performance of supply chain management in the Judiciary</td>
<td>4.847</td>
<td>0.228</td>
</tr>
<tr>
<td>E-tendering has affected sourcing process in the Judiciary</td>
<td>4.565</td>
<td>0.376</td>
</tr>
<tr>
<td>The organization achieves value for money through e-tendering</td>
<td>4.782</td>
<td>0.364</td>
</tr>
<tr>
<td>E-tendering is safer for the organization</td>
<td>4.652</td>
<td>0.233</td>
</tr>
<tr>
<td>E-tendering is faster than manual tendering</td>
<td>4.956</td>
<td>0.134</td>
</tr>
<tr>
<td>E-tendering is more cost effective</td>
<td>4.978</td>
<td>0.374</td>
</tr>
<tr>
<td>E-tendering is an important factor in strategic sourcing in the organization</td>
<td>4.065</td>
<td>0.526</td>
</tr>
</tbody>
</table>
4.6 Electronic Documentation

The study sought to find the extent of agreement with statements regarding documentation in the judiciary in Kenya. A scale of 1-5 was used. The scores “strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale. The scores of ‘Not sure’ were represented by a score equivalent to 2.6 to 3.5 on the Likert. The score of “Agree” and “Strongly disagree” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale. According to the findings, the study found out that respondents agreed electronic documentation has affected strategic sourcing in the judiciary as shown by a mean of 4.326 and a standard deviation of 0.564, that procurement documents are easily automated as shown by a mean of 4.239 and a standard deviation of 0.566; that record keeping is safer through e-procurement as shown by a mean of 4.043 and a standard deviation of 0.618. Further, respondents agreed that documentation is faster through e-procurement as shown by a mean of 4.043 and a standard deviation of 0.490.

Table 4.4: Extent of agreement with statements on Documentation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std_Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic documentation has affected strategic sourcing in the Judiciary</td>
<td>4.326</td>
<td>0.564</td>
</tr>
<tr>
<td>Record keeping is safer through e-procurement</td>
<td>4.043</td>
<td>0.618</td>
</tr>
<tr>
<td>Procurement documents are easily automated</td>
<td>4.239</td>
<td>0.566</td>
</tr>
<tr>
<td>Documentation is faster through e-procurement</td>
<td>4.043</td>
<td>0.490</td>
</tr>
</tbody>
</table>

4.7 Electronic Communication

The study sought to find out the extent of agreement of statements on communication at the judiciary in Kenya. A scale of 1-5 was used. The scores “strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale. The scores of ‘Not sure’ were represented by a score equivalent to 2.6 to 3.5 on the Likert. The score of “Agree” and “Strongly disagree” were represented by a mean
score equivalent to 3.6 to 5.0 on the Likert Scale. The study found out that the respondents agreed; that communication is safe electronically as shown by a mean of 4.464 and a standard deviation of 0.127; that the suppliers are able to get information in real time as shown by a mean of 4.354 and a standard deviation of 0.115, that implementation of e-procurement has made an impact on communication between the judiciary and its suppliers as shown by a mean of 4.283 and a standard deviation of 0.196, that It is easier and cheaper to make corrections online as shown by a mean of 4.232 and a standard deviation of 0.159 and that communication is slower electronically as shown by a mean of 4.173 and a standard deviation of 0.147. The results showed that electronic communication is safe, effective, and faster and suppliers are able to get information in real time. Similarly, Croom, (2003) opines that e-communication ensures quality with accuracy, timeliness, adequacy, credibility, and criticality thus more noticeable supply chain performance. In line with the findings of the study, a study by Presutti, (2003) found out that real-time exchange of information in the e-design stage reduces time-to-market thus improving sourcing

**Table 4.5: Extent of agreement on statements relating to Communication**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std_Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of e-procurement has made an impact on communication</td>
<td>4.283</td>
<td>0.196</td>
</tr>
<tr>
<td>between the judiciary and its suppliers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication is safe electronically</td>
<td>4.465</td>
<td>0.127</td>
</tr>
<tr>
<td>Suppliers are able to get information in real time</td>
<td>4.354</td>
<td>0.115</td>
</tr>
<tr>
<td>It is easier and cheaper to make corrections online</td>
<td>4.232</td>
<td>0.159</td>
</tr>
<tr>
<td>Communication is faster electronically</td>
<td>4.173</td>
<td>0.147</td>
</tr>
</tbody>
</table>
4.8 Electronic Order processing

Table 4.6 depicts the results of the extent to which aspects of government regulations on the strategic sourcing in the Judiciary of Kenya. A scale of 1-5 was used. The scores “strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale. The scores of ‘Not sure’ were represented by a score equivalent to 2.6 to 3.5 on the Likert. The score of “Agree” and “Strongly disagree” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale.

The study presented the results in mean and standard deviation. The respondents strongly agreed that Online ordering has no / minimal errors as shown by a mean of 4.866 and a standard deviation of 0.152 and online ordering processes is faster than manual as shown by a mean of 4.804 and a standard deviation of 0.143. The respondents strongly agreed that introduction of e-procurement in the organization affected efficiency of the ordering process as shown by a mean of 4.634 and a standard deviation of 0.152. The study further found out that the respondents strongly agreed it is easy to track the ordering process online as shown by a mean of 4.500 and a standard deviation of 0.176. The respondents agreed that online ordering reduces cases of corruption in the organization as shown by a mean of 4.108 and a standard deviation of 0.144. The study agreed that e-ordering is faster than manual, has minimal errors, is easy to track, and reduces cases of corruption in the organization. The study is supported in the literature by Petersen, (2005) who asserts that online ordering allows customers to order products or services via their website thus improving supply chain performance.

Table 4.6: Extent of agreement with statements on order processing

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std_Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of e-procurement in the organization affected efficiency of the ordering process</td>
<td>4.634</td>
<td>0.152</td>
</tr>
<tr>
<td>Online ordering processes is faster than manual</td>
<td>4.804</td>
<td>0.143</td>
</tr>
<tr>
<td>Online ordering has no / minimal errors</td>
<td>4.866</td>
<td>0.125</td>
</tr>
</tbody>
</table>
Online ordering reduces cases of corruption in the organization 4.108 0.144

4.9 Strategic sourcing at the Judiciary of Kenya

The study sought to find out the extent of agreement to statements relating to efficiency of electronic sourcing. A scale of 1-5 was used. The scores “strongly disagree” and “Disagree” were represented by mean score, equivalent to 1 to 2.5 on the continuous Likert scale. The scores of ‘Not sure’ were represented by a score equivalent to 2.6 to 3.5 on the Likert. The score of “Agree” and “Strongly disagree” were represented by a mean score equivalent to 3.6 to 5.0 on the Likert Scale. From the findings as shown in table 4., majority of the respondents agreed; the organization achieves value for money in the overall procurement process though strategic sourcing and organization implements transparent sourcing processes using e-procurement as shown by a mean score of 4.4262 and a standard deviation of 0.647, that the organization complies with the public procurement laws and regulations under the e-procurement methods as shown by a mean score of 4.327 and a standard deviation of 0.350.; that The organization achieves procurement cycle time within the required time as shown by a mean score of 4.213 and a standard deviation of 0.292., that the judiciary invests on modern technology as shown by a mean score of 4.082 and a standard deviation of 0.584 and finally they agreed that the organization has reduced operation cost though use of electronic sourcing means as shown by a mean score of 4.0656 and a standard deviation of 0.504. From the results of the study, the organization achieves value for money in the overall procurement process though strategic sourcing, complies with the public procurement laws and regulations under the e-procurement methods, achieves procurement cycle time within the required time, invests on modern technology, has reduced operation cost though use of electronic sourcing means and implements transparent sourcing processes using e-procurement.

Though E-procurement has been touted as a revolutionary tool in supply chain management, state corporations are still slow in embracing it. This is inspite of the advantages that its adoption would confer to the organizations and its suppliers alike. Key
benefits identified include: Cost savings, improved efficiency and better relations with suppliers.

**Table 4.7: Strategic sourcing at the Judiciary of Kenya**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization achieves value for money in the overall procurement</td>
<td>4.426</td>
<td>0.647</td>
</tr>
<tr>
<td>process though strategic sourcing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization complies with the public procurement laws and regulations</td>
<td>4.327</td>
<td>0.350</td>
</tr>
<tr>
<td>under the e-procurement methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization achieves procurement cycle time within the required time</td>
<td>4.213</td>
<td>0.292</td>
</tr>
<tr>
<td>The Judiciary invests on modern technology</td>
<td>4.082</td>
<td>0.584</td>
</tr>
<tr>
<td>The organization has reduced operation cost though use of electronic</td>
<td>4.065</td>
<td>0.504</td>
</tr>
<tr>
<td>sourcing means</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization implements transparent sourcing processes using e-</td>
<td>4.426</td>
<td>0.647</td>
</tr>
<tr>
<td>procurement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**4.10 Regression Analysis**

**Table 4.8: 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>.8496a</td>
<td>.7218</td>
<td>.7172</td>
<td>.24678</td>
</tr>
</tbody>
</table>

Adjusted R$^2$ which is termed as the coefficient of determination tells us how strategic sourcing at the judiciary in Kenya varied with E-procurement on strategic sourcing in the Judiciary of Kenya with e-tendering, electronic documentation, electronic order processing and electronic communication. According to the findings in the table above, the value of adjusted R$^2$ is 0.7172. This implied that there is a variation of 71.72% of
determines the influence of E-procurement on strategic sourcing in the Judiciary of Kenya with e-tendering, electronic documentation, electronic order processing and electronic communication at a confidence level of 95%. R is the correlation coefficient which showed that there was a strong correlation between the study variable as shown by the correlation coefficient of 0.8496.

### Table 4.9: 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 Regression</td>
<td>0.744</td>
<td>4</td>
<td>0.372</td>
<td>5.78</td>
<td>.028b</td>
</tr>
<tr>
<td>Residual</td>
<td>23.091</td>
<td>14</td>
<td>0.129</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23.835</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the ANOVA statistics below the processed data which is the population parameters, had a significance level of 0.028 which showed that the data was ideal for making conclusions on the population’s parameter as the value of significance (p-value) was less than 5%. The calculated was greater than the critical value (5.78>3.11) an indication that communication, documentation, e-tendering and electronic order processing significantly influence strategic sourcing at the judiciary. The significance value was less than 0.05 an indication that the model was significant.

### Table 4.10: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.233</td>
<td>.172</td>
<td></td>
<td>1.847</td>
</tr>
<tr>
<td>E-Tendering</td>
<td>.142</td>
<td>.082</td>
<td>.132</td>
<td>1.739</td>
</tr>
</tbody>
</table>
The researcher conducted a multiple regression analysis so as to determine the influence of E-procurement on strategic sourcing in the Judiciary of Kenya and the four variables. As per the SPSS generated table 4.10 above, the equation \( Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \) becomes: \[ Y = 0.233 + 0.142X_1 + 0.643X_2 + 0.232X_3 + 0.162X_4 \]

Where \( Y \) is the dependent variable (strategic sourcing), \( X_1 \) is the e-tendering variable, \( X_2 \) is electronic documentation, \( X_3 \) is e-communication variable and \( X_4 \) is electronic order processing variable.

According to the regression equation established, taking all factors into account (communication, documentation, e-tendering and electronic order processing) is held at constant zero, strategic sourcing will be 0.233. The data findings analyzed also show that taking all other independent variables at zero, a unit increase in e-tendering will lead to a 0.142 beta value increase in strategic sourcing; a unit increase in electronic documentation lead to a 0.643 beta value increase in strategic sourcing, a unit increase in communication variable will lead to a 0.232 beta value increase in strategic sourcing, a unit increase in order processing will lead to a 0.162 beta value increase in strategic sourcing.

The \( P \) value show the level of significance of each variable, from the \( p \)-value of all variable were less than 0.05 this is an indication that they were statistically significant. The study further revealed that there was positive relationship between e-communication, e-documentation, e-tendering, electronic order processing and strategic sourcing at the judiciary in Kenya.

The study is supported by Talluri & Narasimhan, (2004), strategic sourcing is one of the ways that organization can obtain the right goods, services and works while achieving
value for money. All government institution operates under specified or defined procurement processes or procedures. There are various strategic sourcing elements that help and can help public institutions to effectively and efficiently acquire goods and services. Strategic sourcing is a way of implementing best practices in public procurement and maintaining better relationships with suppliers. Strategic sourcing is critical for firms practicing the principles of supply chain management.
CHAPTER FIVE
SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
The chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to investigate the influence of E-procurement on strategic sourcing in the Judiciary of Kenya.

5.2 Summary of the Findings
The general purpose of this study was to determine the influence of E-procurement on strategic sourcing in the Judiciary of Kenya. The study also made inference on the research hypotheses that; e-tendering, electronic communication, electronic ordering and electronic documentation have significant effect on strategic sourcing at the judiciary in Kenya. The study had an adjusted \( R^2 \) of 0.7172. This means that 71.72% variation of strategic sourcing is explained by joint contribution of e-tendering, electronic communication, electronic ordering and electronic documentation.

Research findings revealed that E-tendering has a positive and significant effect on supply chain performance \( (\beta_1 = 0.142, p<0.034) \). In conformity with the findings, Smith, (2000) asserts that e-tendering which involves sending Request for quotations and Request For proposals and also tenders to suppliers and receiving the responses of suppliers back with the use of the internet results to improved supply chain performance. On the same note, Swan, (2000) states that the fact that the tendering process is online, it is more efficient than paper-based transactions hence facilitating speedy exchange of information which contributes to high supply chain performance. Finally, Chen, (2004) echoes that e-tendering provides a centralized process that helps organizations to reduce traditional tendering costs, improve efficiencies and accountability as well as increase supply chain performance.

Electronic documentation was found to have a positive and significant effect on strategic sourcing \( (\beta_2 = 0.643, p\text{-value} = 0.007) \). Firms are making significant investments in their
e-business strategies and IT; yet some managers remain unclear about how to adapt their organization to new strategies and processes. Advancements in procurement technology create the opportunities for new forms of arranging work, such as collapsing boundaries between suppliers and customers make it imperative for management to identify the key attributes and processes required for competitive advantage.

Further, electronic communication was found to have a positive and significant effect on strategic sourcing ($\beta_3 = 0.232$, p-value = 0.016). Therefore, the use of internet technology to gather and distribute purchasing information results to improved sourcing of suppliers. In conformity with the findings of the study, Li et al., (2005) echoed that information sharing facilitates relay of critical and proprietary information to one’s supply chain partner hence contributing to high performance of the supply chain. Finally, e-order processing showed a positive and significant effect on strategic sourcing. ($\beta_4 = 0.162$, p-value = 0.011). Bello, (2002) argues that, EDI electronic ordering eradicates repetitive manual processes and removes the need for paperwork leading to increased productivity and improved customer service thus improving supply chain performance.

5.3 Conclusion
Public procurement is an important function of government. Procurement outlays have a great impact on the economy and needs to be well managed. Indeed, in all countries in the world, estimates of the financial activities of government procurement managers are believed to be in the order of 10% – 30 % of GNP (Callender & Mathews, 2000). Efficiently handling this size of procurement outlays has been a policy and management concern as well as a challenge for public procurement practitioners. The introduction of E-procurement involves efforts to change how procurement functions, such as spending and budgets, employing staff, buying goods and services, and managing technological and organizational activity. It also has the potential to transform the relations between suppliers and customers.
The emergence of the new Information and Communication Technologies (ICTs) has also offered promising opportunities as regards the efficiency, transparency and opening-up of public procurement (European Commission 2000). Technology advances such as the Internet and on-line proposal/bid processes have created competitive environments that may not previously have existed, but have caused current suppliers to be more responsive to an organization’s financial objectives. However, before conducting an on-line event, it is important to understand the market characteristics to mitigate risks and prevent undesirable results. Through an understanding of strategic objectives and the marketplace, sourcing professionals can evaluate and modify supplier relationships to achieve the desired results.

5.4 Recommendation

The research recommends holding the key success for delivering cost effective services hence procurement performance. Strong concerns have thus been raised within the state corporations for adopting alternative integrated procurement cost reduction strategies to supersede the traditional cost approach with the concomitant problems of fragmented working relationship between parties in the supply chain. In line with this state corporation must view the embracement of e-procurement as a tool that will support procurement cost and processes as it generally contributes partner relationships, information sharing, and supply chain integrations as e-procurement contributes to supply chain performance.

The researcher recommends that using technology through e-procurement and procurement systems processes can be improved effectively and transparency of the supply chain can be enhanced. Therefore, e-procurement system is more pivotal than other e-business applications, the current economic environment, a value creation perspective is important for improving supply chain performance. The study recommended that for e-procurement to improve sourcing, mangers must believe in the benefits of the technology, opt for a comprehensive approach, define new relationships with vendors, train and support suppliers, and openly communicate with employees.
5.5 Recommendations For further studies

Although the implications of the findings in the study indicate that e-procurement has a positive influence on sourcing in Kenyan judiciary, more elaborate research is necessary to accurately quantify the effects of e-sourcing on supply chain performance. In addition, including moderator factors and looking forward to direct or indirect relationship towards supply chain performance can also be made in the research models of the new research by other scholars in future. A similar study also has to be conducted in another government agency so as to come up with a conclusive picture. Given these considerations, there will be conclusive results on the effect of e-procurement on strategic sourcing and supply chain performance.

According to the regression model, the value of adjusted $R^2$ is 0.7172. This implied that there is a variation of 71.72% of determines the influence of E-procurement on strategic sourcing in the Judiciary of Kenya with e-tendering, electronic documentation, electronic order processing and electronic communication at a confidence level of 95%. R is the correlation coefficient which showed that there was a strong correlation between the study variable as shown by the correlation coefficient of 0.8496. This therefore implies that there are other factors that account for 28.28% which influence of E-procurement on strategic sourcing in the Judiciary of Kenya can be studied in another study.
REFERENCES


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APPENDIX I: Questionnaire

I am a student at KENYATTA UNIVERSITY and would like to collect some data so as to facilitate research on E-procurement in relation to strategic sourcing. The collected data will be kept confidential and will be used for academic purposes only.

Kindly tick in the brackets or fill in the blank spaces:

SECTION A

PERSONAL INFORMATION:

(a) Gender: Male ( )
          Female ( )

(b) Age: 18-30 ( )
        31-40 ( )
        41-50 ( )
        51-60 ( )
        60 and above ( )

(c) Highest level of Education:
    Diploma ( )
    Bachelors Degree ( )

If others specify………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

SECTION B

The following statements relate to E-procurement’s Practices at the Judiciary of Kenya. Using the key (Where: Strongly Disagree-1; Disagree-2; Neutral-3; Agree-4; Strongly Agree-5), tick as appropriate the extent to which you agree with the statements in relation to your organization

40
<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Rating</th>
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<tbody>
<tr>
<td></td>
<td><strong>1. E-tendering</strong></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>E-tendering has influenced operational performance of supply chain management in the Judiciary</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>e-tendering has affected sourcing process in the Judiciary</td>
<td></td>
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<tr>
<td>c.</td>
<td>The organization achieves value for money through e-tendering</td>
<td></td>
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<tr>
<td>d.</td>
<td>E-tendering is safer for the organization</td>
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<tr>
<td>e.</td>
<td>E-tendering is faster than manual tendering</td>
<td></td>
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<tr>
<td>f.</td>
<td>E-tendering is more cost effective</td>
<td></td>
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<tr>
<td>g.</td>
<td>e-tendering is an important factor in strategic sourcing in the organization</td>
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<td></td>
<td><strong>2. Documentation</strong></td>
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<td>h.</td>
<td>electronic documentation has affected strategic sourcing in the Judiciary</td>
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</tr>
<tr>
<td>i.</td>
<td>Record keeping is safer through e-procurement</td>
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<td>j.</td>
<td>Procurement documents are easily automated</td>
<td></td>
</tr>
<tr>
<td>k.</td>
<td>Documentation is faster through e-procurement</td>
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<td></td>
<td><strong>3. Communication</strong></td>
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<td>l.</td>
<td>implementation of e-procurement has made an impact on communication between the judiciary and its suppliers</td>
<td></td>
</tr>
<tr>
<td>m.</td>
<td>Communication is safe electronically</td>
<td></td>
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<tr>
<td>n.</td>
<td>Suppliers are able to get information in real time</td>
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<td>o.</td>
<td>It is easier and cheaper to make corrections online</td>
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</tr>
<tr>
<td>p.</td>
<td>Communication is faster electronically</td>
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<td></td>
<td><strong>4 Accuracy in Ordering process</strong></td>
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<tr>
<td>q.</td>
<td>introduction of e-procurement in the organization</td>
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</tbody>
</table>
affected efficiency of the ordering process

r. online ordering processes is faster than manual

s. Online ordering has no / minimal errors

t. It is easy to track the ordering process online

u. Online ordering reduces cases of corruption in the organization

SECTION C

The following statements relate to *Strategic sourcing at the Judiciary of Kenya*. Using the key (*Where: Strongly Disagree-1; Disagree-2; Neutral-3; Agree-4; Strongly Agree-5*), tick as appropriate the extent to which you agree with the statements in relation to your organization

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>a. The organization achieves value for money in the overall procurement process through strategic sourcing</td>
<td></td>
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<td></td>
<td>b. The organization complies with public procurement laws and regulations under the e-procurement methods</td>
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<td>c. The organization achieves procurement cycle time within the required time</td>
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<td>d. The Judiciary invests on modern technology</td>
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<td>e. The organization has reduced operation cost through use of electronic sourcing means</td>
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<td></td>
<td>f. The organization implements transparent sourcing processes using e-procurement</td>
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Thank you