

**DETERMINANTS OF IMPLEMENTATION OF PUBLIC PROCUREMENT ACT ON
COMMERCIAL STATE CORPORATIONS IN KENYA**

**BY
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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

Public procurement makes up a large share of total expenditure in the public sector. However, various factors, including the adoption of e-procurement through ICT infrastructure and procurement personnel proficiency, influence the application of the public procurement Act in commercial state organizations. In light of this, the purpose of this study was to determine the factors that influence the public procurement act's execution and the performance of Kenya's commercial state enterprises. The study specifically focused on procurement staff proficiency, national procurement regulatory framework, information and communication technology infrastructure and top management support and their influence on implementation of procurement act in the commercial state corporations in Kenya. The study was anchored on Knowledge-Based Theory, Institutional Theory, System Theory and Agency theory. A descriptive research design was used to achieve the study objectives. The target population of the study comprised of 33 commercial state corporations in Kenya and the respondents included the finance managers and the procurement managers which was equivalent to 66. A census was conducted on all the 66 respondents. Data was gathered with aid of the questionnaire. The design of questionnaires was made to comprise of close ended and open-ended questions. The data was entered into SPSS software for descriptive and inferential statistics analysis. Descriptive findings entailed frequencies, percentages, means and standard deviations while inferential results were correlation and regression results. The study findings were presented in form of tables, charts and figure. The study found out that the procurement staff had adequate have high level of technical expertise and understanding of the national procurement legislation that governs the body which promoted efficiency during the procurement processes, the organization identified and upheld the relevant national-level procurement regulation so as to ensure the success of the whole procurement of process and the public procurement legislations promoted regulation of procurement processes for guidance and accountability. Staffs were able to obtain public procurement legislation content via ICT, and ICT infrastructure was up to date for various procurement procedures; top management encouraged employees to be honest about the procurement process, and openness was promoted. The study concludes that staff proficiency significantly affected organizational performance, this was associated with the fact that the procurement staff had adequate have high level of technical expertise, National procurement regulatory framework had a positive effect on implementation of public procurement Act where it promoted integrity among the employees in regard to the procurement process and also promoted transparency. ICT infrastructure significantly influenced organizational performance this was seen by the ability of the staffs to access the public procurement legislation content by use of ICT and ICT infrastructure up to speed for various procurement processes. There was promotion of integrity among the employees in regard to the procurement process also promoted transparency and accountability According to the study, all state organizations, whether commercial and non-commercial, should use the best procurement methods to increase their performance, competitiveness, and effectiveness in providing public services. Policymakers should place a greater emphasis on enforcement since it provides an incentive for commercial firms to improve their performance by increasing implementation and compliance.

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DEDICATION

I dedicate this project to my family who gave me invaluable support in the completion of this project due to their understanding and patience throughout the research project period.

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LIST OF ABBREVIATIONS AND ACRONYMS

GDP	Gross Domestic Product
GNP	Gross National Product
ICPAN	Certified Public Accountants of Nigeria
ICT	Information and Communications Technology
OECD	Organisation for Economic Co-operation and Development
PPDA	Public Procurement and Disposal Act
PPOA	Public Procurement Oversight Authority
PPP	Public Procurement Service
SACCO	Savings and Credit Cooperative Organization
UNCITL	United Nations Commission on International Trade Law
VSM	Viable System Model
WTO	World Trade Organization

TERMS AND DEFINITION

ICT Infrastructure it facilitates adoption of e-procurement, electronic information sharing and the levels of automation among commercial state corporations in Kenya (Crompton, 2007)

Legal Regulatory Framework it includes the procurement regulations, manuals and circulars that guide procurement within the commercial state corporations in Kenya. (Rotich & Okello, 2015)

Organizational Performance it includes cost effectiveness, the quality standards and profits generated by the commercial state corporations in Kenya (Talluri, 2008).

Procurement staff proficiency it refers to professionalism, skills and experience of the procurement staff of the commercial state corporations in Kenya. (Achuora, 2011).

Top management support it involves the promotion of accountability, transparency and facilitation of the oversight in procurement matters among the commercial state corporations in Kenya. (Bartik, 2009)

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This section presents an overview of the study's background, which is based on a global, regional, and local perspective on the factors that influence the implementation of the public procurement act and the performance of Kenya's commercial state enterprises. The statement of the problem which brings out the current situation in as far as public procurement Act is concerned is also discussed. It also presents the main and specific objectives of the study as well as the research questions, justification of the study, scope of the study and limitations of the study.

1.1 Background of the Study

Procurement helps entities to ensure that relevant services including supplies have been bought so as to meet the established goals (Talluri, 2008). There is more to procurement than just the identification and obtaining. There should be critical considerations as to what is needed and who can supply at the most cost-effective way. Public procurement is the process through which public entities utilize public funds for purchases of goods and services for public good. Since huge amount of money is utilized in procurement in the public sector entities and that such money is derived from the taxpayers, it becomes critical to ensure there is transparency and accountability (Hui *et al.*, 2011). About sixty per cent of government revenue is spent on procurement. Public procurement is also estimated to account for around 10% of the country's Gross Domestic Product (GDP).

In most cases, public procurement comprises of the single widespread domestic markets especially in evolving and emerging economies. Based on how it is operated, the system of public procurement can drive the growth and development of the economies (PPOA, 2012). It is through

public procurement that the government is able to attain the developmental needs for instance improvement of infrastructures (PPOA, 2010). Furthermore, majority of the government do leverage on public procurement to offer the required support to the domestic industries. Sound practices and policies with regard to procurement are critical in ensuring there is good governance (Huiet *al.*, 2011). At the same time, proper implementation of the practices and acts that government procurement is an important indicator of a sound financial management system in the public domain (Zuzana, 2012). It worthwhile to note that a substantial budget among most African countries is utilized in public procurement and this heightens the role played by a sound procurement system towards the growth of the economy (Zuzana, 2012).

Because of the huge amount of money involved in public procurement, efforts should be made to ensure that all expenditure are for the benefit of the public for inspiration of trust (Witjes & Lozano, 2016). Proper utilization of the funds of the public is critical for the development of the economy as a whole given that the resources are scarce (Patrucco, Luzzini & Ronchi, 2016). The general level of efficiency within the government is gauged from how the awarding and management of the tender contract is done. In turn, this will have a significant influence on attraction of investments from foreign countries that would drive the growth of the economy. Therefore, it is important that the available scarce resources have been optimized through transparent and fair rules governing procurement. Therefore, the policies governing public procurement are critical for the growth of the economy (Smith, 2016). This makes the public procurement act public policy an important component of the public procurement activities in various public institutions. This arises from the fact that public procurement represents over 80% of world merchandise and commercial services exports in 2008 (OECD, 2010).

1.1.1 Determinants Implementation of Public Procurement Act

India lacks an all-encompassing public procurement law that is applicable throughout the country. Its procurement system is centralized with different entities at various levels of the government (Tukamuhabwa, 2012). There is a pending bill before the legislature of India that strives to ensure that there is harmonization of the laws and regulations governing procurement in India. This is aimed at enhancing the efficiency and effectiveness of the processes involved in the procurement (Lewis-Faupel, Neggers, Olken, & Pande, 2016).

In Jamaica, there was a centralized policy that guided procurement before the year 2012. All entities had the responsibility of managing their own process of acquiring goods and other essential supplies (Asare & Prempeh, 2016). However, there were a number of limitations that accrued as a result of this system. For instance, there existed no rules that would guide consultation, it was believed that the award of contracts was done subjectively and no comprehensive document existed that outlined all the policies of procurement. In response to these challenges, e-procurement was introduced in July of the year 2015 so as to enhance the transparency and efficiency of the procurement processes. This created room for integration of the procurement rules and regulations into a single portal (Asare & Prempeh, 2016).

The acts governing procurement in the public domain of United Kingdom have met some degree of resistance. The key forces driving this resistance include the growing complaints with regard to the complexity of the directives and their inflexibility (Weele, 2010). There are various statutes that guide how procurement in the public sector is conducted. It is the UK Regulations that provide oversight role in stimulating effectiveness within procurement in the public sector. In Jordan, Alkilani and Jupp (2012) a number of factors including lack of clear measures of performance and

benchmarking systems coupled with poor systems of procurement and regulations prevented realization of sustainability in the procurement processes.

A report by World Bank (2014) shows that inadequate regulatory framework and the flaws in laws and other measurement of enforcement have an adverse effect on Indonesian best practices of procurement. In Korea, there is high degree of centralization of the public procurement system and this has contributed towards efficiency in the procurement process. Until 2005, there were no policies to guide procurement in the public sector of Australia (Thai, 2011). According to Smee (2012), 44 percent of public sector companies indicated that there were no performance indicators for measuring the procurement process' efficacy and efficiency in the report on the review of Purchasing and Logistics in the Queensland Government.

In South Africa, there are no policies to guide and govern the procurement process in the public sector. There are only some specific regulations and statutes relating with some specified set of procurement activities. It is only the constitution which is the principal legislation that guides procurement activities in South Africa (Arrowsmith, 2010). Although there exists no specific and procedures for procurement, there exist different avenues of conducting procurement activities including the procedure for bidding or quotations. The regulations by the treasury provide that entities can purchase products by other avenues in some specific cases where it may not possible for inviting competitive bids which attract some conditions. There is also a tendering system in South Africa with a centralized data base of the suppliers that have been approved. The need for the government to fight the growing level of corruption has resulted into implementation of this system of tendering (Munzhedzi, 2016).

The Kenyan government has taken steps to put the legislation governing public procurement into effect. The Procurement Manual of 2009, which offers a framework for implementing the Public

Procurement and Disposal Act, 2005, and the Public Procurement and Disposal Regulations, should be used by all public sector organisations (2006). It is a reference point that oversees procurement procedures in Kenya while ensuring that the policies and legislation governing procurement are followed. It is only when the requirements established in the manual have been adhered to that public procurement can be done (PPOA, 2015).

John and Mugo (2012) argued that procurement in the public sector is shaped by a number of attributes like accountability issues as characterised by abuse of powers. It was argued that majority of the procurement staff within the public sector organizations act with so much discretion. However, when there is a high degree of discretion among procurement staff without sufficient systems of internal control, it may open up a window for corruption. Offering incentives of performance go a long way to increasing accountability which may create a sound public procurement system. It is believed that adoption of ICT, the level of competency of the procurement staff and the operating ethics and procedures determine the soundness of the procurement systems in Kenyan government entities (Ngugi & Mugo, 2012).

1.1.2 Commercial State Corporations

In African countries, state corporations have existed since early 1950s and they have realized growth over the past decades. The most challenging thing with state corporations is their consistent loss making and poor performance across the world. The increased pressure and expectations from tax payers has however resulted into various reforms to improve performance of state corporations in most countries. In Kenya, State Corporation emerged with the colonial government and they were meant to offer services that would otherwise not be provided by the private sector. The state corporations in Kenya cover key areas of the economy including manufacturing, communication, transportation, financial as well as agriculture (National Treasury, 2018).

Commercial state enterprises are established to operate in a manner so as to generate revenues to the government. They seek to achieve this through cost minimization and maximization of the profits. These entities could be more successful if they were to serve only their commercial goal, however, this is not the case as some of them are involved in conflicting activities (Dorcas, 2014). Some of the problems faced by commercial State Corporation include lack of implementation of public procurement act which limits investment in alternative channels and leads to poor efficiency and effectiveness. This would inform the need for the present inquiry. .

1.2 Statement of the Problem

Effective implementation of the public procurement act has a significant potential saving of 6% of the overall costs of the firm (Atnafu & Balda, 2018). Firms are facing pressure to offer products that are of high quality to customer needs that are constantly changing. Implementation of all-encompassing procurement policies is not only important for sound public financial management but also for inclusive growth (Zuzana, 2012). Public procurement policies ultimately stimulate transparency, integrity and efficiency for domestic public procurement system. Compliance to effective public procurement policies ensures that procurement planning among professional bodies is coordinated and integrated to fulfil the need for goods, services or works to the stipulated time and according to the planned budget. Early planning through implementation of procurement policy ensures that organisations avoid inefficiency in procurement, which is contrary to timely and transparent procurement (Mchopa, 2015). Implementation of the public procurement act has emerged as a critical strategy for such firms to offer quality products that meet or exceed customer needs, minimize the cost, increase responsiveness and meet demand expectations and uncertainties (Mangan, Lalwani & Lalwani, 2016).

Most commercial state enterprises have faced challenges with poor performance as it regards the level of service delivery, the growing levels of corruption and the fact that the funds are embezzled. The Presidential Taskforce formed in Kenya in 2013 indicated that losses were made by the state corporations in the financial years 2009/2010 as well as 2010/2011. These losses were attributed to factors such as inadequate systems for managing inventories, poor system of tracking and reporting, inadequate systems of control and misappropriation of funds.

Implementation of public procurement act among commercial state corporations is affected by several factors among them is the adoption of e-procurement through ICT and procurement staff proficiency. In developing nations like Kenya, public procurement is being more acknowledged as a critical component of service delivery, accounting for a large amount of total spending (Kirimi, H. M & Shalle, 2014). This is no exception among commercial state corporations. Transformation Index - Kenya (2014) revealed that Kenya loses close to 30% of annual budget to improper procurement practices. This point at deteriorating procurement systems that are in dire need of effective public procurement policies.

Although studies on procurement in the public sector have been done, few have focused on the implementation of the public procurement act and the performance of Kenya's commercial state enterprises. Njeru (2015) studied the elements that influence the effective implementation of procurement practices in Kenya's tertiary public training institutions, whereas Ayoti (2012) studied the factors that influence the effectiveness of the public sector tendering process. Despite the argument that procurement malpractices have been on the rise in the commercial state corporations in Kenya, few studies have focused on the determinants of implementation of public procurement act in these institutions. This result into research gaps which the current study sought to fill by

establishing the determinants of implementation of public procurement act of the commercial state corporations in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

To evaluate the determinants of implementation of public procurement act of commercial state corporations in Kenya

1.3.2 Specific Objectives

- i. To determine the effect of procurement staff proficiency on implementation of public procurement act of commercial state corporations in Kenya.
- ii. To determine the effect of legal regulatory framework on implementation public procurement act of commercial state corporations in Kenya.
- iii. To determine the effect of ICT infrastructure on implementation of public procurement act of commercial state corporations in Kenya.
- iv. To determine the effect of top management support on implementation of public procurement act of commercial state corporations in Kenya.

1.4 Research Questions

- i. What is the effect of procurement staff proficiency on implementation of public procurement act of commercial state corporations in Kenya?
- ii. How does the legal regulatory framework affect implementation of public procurement act of commercial state corporations in Kenya?
- iii. What is the effect of ICT infrastructure on implementation of public procurement act of commercial state corporations in Kenya?

- iv. How does top management support affect implementation of public procurement act of commercial state corporations in Kenya?

1.5 Significance of the Study

The goal of the study was to assess the factors that influence the implementation of the public procurement legislation and the performance of Kenya's commercial state enterprises. As a result, the study's findings will be relevant to the following groups in terms of implementing the procurement act.

1.5.1 Policy Makers

The findings of the study are expected to be beneficial to relevant policy makers such as PPOA, the National Treasury's public procurement policy department etc. The policy makers may find the recommendations of the study useful in addressing some of the factors that hinder implementation of public procurement act. The results would enable them to develop and adopt the best procurement policies and regulations as well as strategies to improve public procurement systems in government institutions. Besides, the Public Procurement and Oversight Authority (PPOA) which is charged with the regulation of public procurement would benefit by understanding the effectiveness of public procurement act.

1.5.2 Future Researchers and Scholars

The results of the study would contribute to the existing on literature public procurement act implementation not just among commercial state corporations but also in the public sector. It would help in theoretical build-up of the theme. The areas of further studies to be suggested by the study are expected to generate more debate and create an avenue for future studies in the area.

1.5.3 The General Public

The findings of this study on implementation of public procurement act in the public professional would provide the general public useful information on procurement act and some of the factors that might affect implementation of this act. The public would benefit from knowledge on major interferences in public procurement such as poor procurement forecasting implementation and administration of the procurement procedure. The public is responsible for payment of tax and thus are entitled to know how their money is being spent especially in procurement activities.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of the literature relevant to the study's issue, which is the factors of public procurement act implementation and performance of commercial state enterprises in Kenya. There is also a discussion of the conceptual framework. In addition, there is an empirical review, research gaps, and a chapter summary in this part.

2.2. Theoretical Review

According to McMillan and Schumacher (2010), a “theory is an explanation, a systematic account of relationships among phenomena”. It is any statement that explains what is measured or described about cause or effect implicitly (Frey, Botan, Friedman, & Kreps, 2007). Theories describe, explain, predict, or control human phenomena in a variety of contexts. The theories adopted in this study explain the relationship between the independent variables of the study and implementation of public procurement policies. The section details the theories that were used to underpin the present study.

2.2.1 The Knowledge-Based Theory

This theory argues that knowledge is a key resource required by an entity to realize its competitive positioning and thus perform. Grant (2007) noted that it hard to copy and imitate resources that are in place in the entity and this helps them to given an entity an upper hand in form of competitive positioning. . Knowledge is incorporated in the culture and history of the entity as well as in the available procedures and policies that have been put in place (Zander, 2007).

The theory shapes the competitive positioning of the entity as reflected in the human resources capabilities that have been put in place. Thus, training the procurement staff on some of the issues in procurement is key predictor of their competency and understanding of the systems of procurement. Knowledge-Based theory suggests that procurement staff proficiency plays a role in implementation of procurement procedures. The nature of organizational human resource capabilities, which are mostly determined by the form of employee training, can have an impact on the implementation of organizational procedures, particularly procurement procedures. The level of proficiency of the procurement staff largely depends on knowledge which is best explained by this theory. The theory links procurement staff proficiency and implementation of public procurement act on the commercial state corporations

2.2.2 Institutional Theory

This theory represents traditional reasoning that is applicable in examination of the key issues revolving around procurement in the public sector entities (Luhmann, 2010). The three institutional pillars as identified by Scott (2004) include cultural, regulatory and normative. This is particularly on the regulatory pillar of the theory which directly relates with the National Procurement Regulatory Framework in Kenya. The key emphasis of the regulatory pillar is on laws and regulations as the mechanism of enforcement where the driver of compliance is expedience. Scott (2004) shared that the regulative and cultural dimensions create meaning in life. It is the PPDA Act that provides guideline and regulation as far as procurement in public entities is concerned. It is the responsibility of the PPOA to ensure that regulations governing procurement in the public sector entities have been released (Barrett, 2010).

Compliance by state corporations to proper procurement code of ethics and policies, regular procurement audits and guidelines by procurement oversight committees is dependent on existence

of such structures. This points out the fact that existence of regulation enforcement mechanism enhances procurement procedures compliance. The theory links the National Procurement Regulatory Framework on implementation of procurement in the commercial state corporations.

2.2.3 Open System Theory (OST)

Systems theory was propounded by Stichweh (2000). On overall, a system is regarded as comprising of parts that are interlinked which aim at realizing a given stated goal. The theory links ICT infrastructure and implementation of public procurement act among commercial state corporations. The key emphasis is on the interaction between related components as a way of having an understanding of how an entity operates. The theory places emphasis on the environment and how the enterprise cooperates within its surrounding so as to actualize the stated goals. The use of technology in procurement is geared towards having effective communication channels and information flow with suppliers who are in the external environment. According to the theory, ICT is a set of hardware and software components that collectively result into effective implementation of public procurement act.

2.2.4 Agency theory

The theory relates with the agents and the principal and how they interact for the mutual benefit of the entity (Rungtusanatham *et al.*, 2007). In this link, the agent acts in such manner to ensure that all the undertaken actions are aligned with the expectations and agreement with the principal. However, there are some circumstances when the principal and the agent act in such a manner to ensure there is mismatch in their actions and expectations thus creating conflicting views and ideas. Separating ownership and control, according to the agency hypothesis, creates conflicts of interest between shareholders and management. This is because managers are frequently in a position to

exploit the company's resources, which has a negative influence on shareholders' wealth maximization (Jensen, 1986). Jensen and Meckling's seminal contributions on agency costs (1976) highlighted the societal and private consequences of an agent's activity due to a lack of alignment of the agent's and owner's interests. According to Angel et al., (2000), agency theory has pushed management decision rights, as well as other external and internal monitoring and bonding mechanisms, to the forefront of theoretical debates and practical inquiry.

Agency theory specifies two formal (and ideal) forms of management systems to control principal-agent relationships in order to help reduce agency and risk-sharing concerns (Rungtusanatham et al., 2007). The first is an outcome-based management mechanism, in which both principals and agents can see the results, and the principals reward agents based on those results (Ekanayake, 2004). The outcome-based management mechanism places a premium on results, regardless of how they are obtained by the agents. The behavior-based management mechanism is the second management mechanism. Principals can employ behavior controls to monitor agents' behaviors and efforts that would otherwise be unknown to them when using this strategy. Tasks and activities in agents' processes that lead to the agents' results are emphasized in the behavior-based management mechanism (Ekanayake, 2004).

In essence, the management team of an organization has an agency role in an organization and thus should act in the best interest of the public. In effort to avoid the conflicting views between these parties, there must be some costs that should be incurred in monitoring the actions undertaken by the agent (Rungtusanatham et al., 2007). The other mechanism of countering possible conflict of interest could be through proper reward to the agent (Ekanayake, 2004). The theory links the top management support with implementation of public procurement act among commercial state corporations.

2.3 Empirical Review

Empirical review refers to examination of other works done by other researchers on the subject under study (Wangrow, 2015). The part looked at the literature on the factors that influence how the Public Procurement Act is implemented in Kenya's commercial state companies. The review has been conducted per research variable that is discussed in the conceptual framework.

2.3.1 Procurement Staff Proficiency

Employee proficiency refers to those individualities, skills or attributes that relate to procurement operations. Staff competencies vary by job and position, but there are some commonalities that apply to just about any job in just about any organization (Achua, 2011). According to Hunja (2003), professionalism, skills and experience of the procurement staff determines the ease of adoption of procurement legislations. Procurement staff proficiency is the capability, ability or an underlying feature of an individual that's casually associated to effective or superior application of procurement legislations (Boyatzis, 2008). Procurement competencies refers to having sufficient knowledge and skills that enable's procurement staff to adapt to the demands of specific procurement laws and guidelines (Aketch & Karanja, 2013). There should be increased efficiency and professionalism through structured collaboration and a concerted effort to adopt best practice.

Ngugi and Mugo (2012) did an assessment on internal factors that are linked with procurement activities and processes in the public sector context. This study's specific objectives included accountability, ICT adoption and ethics and how they separately affect procurement process supplies in the public sector. It was noted that accountability and ethics among the staff has a direct link with the processes of procurement to a great extent in an entity. Badaso (2014) showed that

inappropriate technology and incompetent personnel greatly undermines effective implementation of procurement policies in State Corporations.

Nyaga (2017) did an inquiry into the factors that shape how procurements plans are implemented with emphasis on public hospitals. The specific point of reference was Kenyatta National Hospital. The adopted design was descriptive with elements of survey where 138 respondents were covered. It was noted that the information systems and technologies had an effect on the procurement plans at KNH. The staff had inadequate knowledge on systems of information in place and they did not attend the trainings focusing on the skills of ICT. This had an effect on implementation of the procurement act. Barsemoi, Mwangagi and Asienyo, (2014) did an assessment of the factors that shape the ability of the public sector entities to perform with specific emphasis on Henkel Chemicals (E.A). Information was gathered with aid of the primary means and it was documented that ICT adoption had a direct link with performance of the procurement function.

Barsemoi, Mwangagi, and Asienyo looked at the factors that influence procurement success in Kenya's private sector (2014). A descriptive research approach was used to conduct the study. At Henkel Chemicals, the target population was 169 employees from various levels of management (E.A). A robust random selection technique was used to choose the 117 people. A structured questionnaire was used to obtain the information. Both qualitative and quantitative approaches were used to analyze the data. The relationship between the independent variables (staff competency, organizational structure, quality management, and information technology) and procurement performance was investigated using regression analysis. The study discovered that the usage of IT in the Henkel Chemicals (E.A) procurement process was the most linked element affecting procurement performance measured in terms of service delivery, while quality management was the least related factor affecting procurement performance.

Khadija and Kibet (2015) explored the factors that influence the implementation of public procurement policies and practices in Elgeyo-Marakwet County. The study's specific objectives included examining the contributions and responsibilities of human capital capabilities, compliance approaches, leadership, and training in the implementation of public procurement procedures. In this study, the descriptive design was adopted. Employees of Elgeyo – Marakwet County's procurement department took part in this study. The procurement and user departments in Elgeyo – Marakwet County employ 105 people. The study's major data collection approach was a standardized questionnaire with a five-point Likert scale, which was given to individual employees and collected information for the study. The qualitative data was analyzed and presented using descriptive statistics such as percentages, means, standard deviations, and frequencies. The quantitative data was examined using factor analysis. The study found that the county government's provision of fundamental skills and presence of important technical skills were the top two components of HCC impacting public procurement procedures in the context of the investigated human capital competence factors.

Wanyonyi and Muturi (2015) did an inquiry into the factors that shape how procurement function in the technical training entities performs. Among the variables considered included information technology, staff competency and ethical issues. The views of the respondents were gathered from the primary sources. It was noted that information technologies, staff competency and ethics had a direct link with the ability of the procurement function to perform. Odero and Ayub (2017) did an assessment of the practices of procurement and their link with the costs of procuring the goods with key emphasis on sugar manufacturing entities. Among the variables covered by the inquiry include the level of competency of the staff and procurement planning. The adopted design was descriptive survey with adoption of census. It was shared that the link between procurement

planning and performance of the procurement function was direct and significant. The competency of the staff had the largest link with performance of the procurement function.

Odero and Ayub (2017) looked into how procurement practices affect the procurement costs of state sugar producers in Western Kenya. The study's specific goals were to assess the impact of procurement strategy and staff competence on procurement budget performance of public sugar producers. This study employed a descriptive survey research approach. Questionnaires were utilized to gather primary data from procurement department employees. A census was conducted. The research population was made up of two public sugar production firms in Kenya that operate in Western Kenya. According to the data, procurement planning had a strong positive and significant impact on procurement performance of sugar production firms in Western Kenya studied, whereas staff competency had a strong positive and significant impact on procurement performance.

2.3.2 Legal Procurement Regulatory Framework

The legal procurement regulatory framework can be construed as a set of procurement rules that depend on the firm's legal setting and on purchase players (Government, public agency among others). In Kenya, the procurement regulatory framework currently includes the Public Procurement and Disposal Act (2005), Public Procurement and Disposal Regulations (2006 and 2009), Supplies Practitioners Management Act (2007) and national case-law. The legal framework seeks to address inter-agency collaboration, e-procurement and harmonization with other related Acts. West (2010) argued that public procurement processes promoted by the World Trade Organization (WTO) and by the Organization for Economic Cooperation and Development (OECD) or financed by international agencies such as the World Bank or the European Bank for Reconstruction and Development must guarantee a public-private approach that avoids

unnecessary trade restrictions, uses internationally harmonized measures, recognizes the equivalence of the other country's regulatory standards and applies principles of transparency and competitiveness.

A significant number of past studies have been carried out to determine the effect a national procurement regulatory framework on the implementation of Procurement policies in the public sector. Njeru (2015) was keen to bring out the factors that shape the effectiveness in implementation of the practices of procurement with emphasis on tertiary public training entities. The adopted design was descriptive and correlational with sampling being done randomly. In total, 35 entities were covered by the inquiry. The study indicated that an existing national procurement regulation framework affects the implementation of Procurement Act in the public sector and therefore advocates compliance to the framework.

Ann (2014) used a descriptive study methodology to investigate the factors that influence public sector supplier payment. A semi-structured questionnaire was used to collect primary data from public procurement officers. The findings of this study found that the department must be truthful, and suppliers must ensure that they disclose all of their information, including the type of relationship that exists between the department and the suppliers, as well as government policies. According to Osei-Tutu, Mensdah, and Ameya (2011), overall compliance with the public procurement statute (Act 663) in Ghana is 19.58 percent in the Ashanti Region and 17.8 percent in the BrongAhafo Region. This suggested that public institutions were not complying with the law. The data for the study was collected using a structured questionnaire and face-to-face interviews. The Public Procurement Act of 2003 (Act 663) was found to provide solutions, but not without obstacles, according to the study.

Asante (2017) looked at the overrun of costs in the process of procurement with emphasis on Ghana. A total of 5 Key Informants were involved to share out the required information. It was noted that there were poor systems of procurement in the public sector because of nonexistence of procurement plans, staff that were not professional and poor regulations. Inability to accept changes especially the new systems of technology and poor institutional policies were also seen to contribute to the challenges in the procurement systems of the public sector organizations. Kiage (2013) examined the factors affecting procurement performance by focusing on the ministry of energy in Kenya. The variables covered by the inquiry included allocation of resources, the competency of staff and management of contracts. The adopted design was descriptive and cross sectional with 72 respondents being sampled. The study noted a significant link between the procurement regulations and the ability to perform.

The impact of Kenya's public procurement and disposal legislation on parastatal procurement was explored by Kagendo (2010). The study's specific goals were to examine the PPDA's impact on the procurement process in Kenyan parastatals and to identify roadblocks to its implementation. This study employed a cross-sectional descriptive research design. The target demography for this research was all Kenyan parastatals situated in Nairobi County. Primary data was collected for the purposes of this study. It was acquired by interviewers using questionnaires. The PPDA, according to the report, made parastatal procurement processes more competitive. The PPDA also improved the quality of services and goods provided, as well as encouraging parastatals to use ethical procurement procedures.

Kiage (2013) examined the factors that affect procurement performance at Kenya's Ministry of Energy. The study's goals were to find out how procurement rules affect procurement performance, how resource allocations affect procurement performance, how personnel competency affects

procurement performance, and how contract management affects procurement performance throughout the procurement cycle. A descriptive design and a cross-sectional survey were used to conduct the study among Kenyan Ministry of Energy personnel at the Nairobi headquarters. The study's sample and sample elements were chosen via purposeful sampling. The result was a sample size of 72 workers. A semi-structured questionnaire was utilized to collect data. According to the data, procurement constraints have a significant impact on procurement cost reduction.

2.3.3 ICT Infrastructure

Information Communication Technologies consists of a combination of hardware and software (Henriksen & Mahnke, 2005). Hardware components are important for knowledge management system because they have the role of platform for the software and transfer of knowledge. Hardware requirements include personal computers or workstations to facilitate the access to knowledge, servers for high traffic for the organization to be in network, open architecture for interoperability in distributed media, mass media rich in that need integrated digital network of services and high speed optic fiber to offer access to public network email letter to the address provided at the site and the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees (Henriksen *et.al*, 2005).

Kirimi and Shalle (2014) investigated the elements that influence E-Procurement implementation in Kenyan government departments. Budget allocation, skilled manpower, government policy, and organizational structure were the primary independent variables that guided the study. This study employed a descriptive research design. The 73 respondents were chosen using a stratified random selection procedure. Primary data was collected from these respondents using questionnaires. The findings revealed that a well-organized ICT system improves the public sector's procurement strategy execution.

Mahinda (2015) investigated the difficulties of implementing e-procurement in state-owned enterprises. The study's precise goals were to see if organizational variables, management support, technical, and environmental factors hampered E-procurement deployment. Primary data was collected using a modified likert scale questionnaire. According to the findings, the implementation of procurement strategy in the public sector is considerably hampered due to major hurdles in ICT adoption. Waal (2011) examined supply chain activities at functional and strategic echelons with intrinsic focus on web-enabled collaboration support by information systems among supply chain participants. Using descriptive analysis, the study used primary data to achieve the objectives. The study established that information and communication technology (ICT) has a positive effect on supply chain performance as it facilitates efficient information sharing among supply chain members.

Nurmandi and Kim (2015) compared three Indonesian cities in their study on making e-procurement function in a decentralized procurement system. The goal of the study was to look at the implementation of the e-procurement program in a decentralized system on Indonesia's local government system, as well as its impact on procurement performance in terms of timely delivery of supplies to government officials. Quantitative and qualitative methodologies were used in the research. The study's main finding is that human resources are the most important determinants of local e-procurement performance.

Amemba, Nyaboke, Osoro, and Mburu, (2013) examined the challenges affecting public procurement performance process in Kenya. The study noted that efficiency and effectiveness in procurement can only be improved through review of existing legislations to encourage extensive use of technology in the management of the procurement process. Mutui and Chirchir (2014) did an inquiry into integrated system of financial management and its link with procurement activities.

The focus of the study was on the Kenya's public sector entities. Information used in the inquiry was gathered from primary sources as supported by the questionnaire. The results showed that difficulties can be experienced with the implementation of an IFMIS.

Mutui and Chirchir (2014) investigated the impact of the Integrated Financial Management Information System on the timeliness and cost of procurement in Kenya's public sector. The research relied on original data gathered through questionnaires. The drop-and-pick approach was used to conduct the questionnaire, which comprised both structured and unstructured items. The information gathered was quantitative. The information on factors affecting the adoption of an integrated financial management information system on procurement performance of Kenyan government ministries was analyzed using descriptive statistics and content analysis. The results showed that difficulties can be experienced with the implementation of an IFMIS.

2.3.4 Top Management Support

Top management support for public procurement legislations amongst senior management and organizational processes and structures support (Bansal & Roth, 2006) play a key role in implementation of public procurement legislations. Management in contracting authorities should ensure that there is an appropriate focus on good practice in purchasing and, where there is a significant procurement function that procedures are in place to ensure compliance with all relevant guidelines. On the same note, the top management should be guided by the principles of accountability, transparency and oversight to promote public procurement legislations. It is also important that top officials as well those involved in procurement processes desist from making improper use of their position (Tan *et al.*, 2009).

KPMG (2008) studied how fast and efficient the procurement and disposal regulation were being adopted and implemented in Kenya after the introduction of the Regulations. The study found out

that public procurement still suffers from fraud and misconduct. KACC (2008) further argued that top officials of procurement work to ensure that regulations have been distorted so as to pick on the interested entities for the purpose of procurement. Mauki, (2014) was interested in bringing out the factors that shape how PPDA is implemented with emphasis on Kenyan judiciary. It was noted that ethics of the stakeholders, the degree of accountability, support from the top management and the competency of the staff all have a link with the implementation of the PPDA.

Hawking, Stein, Wyld and Forster (2008) did an assessment of barriers that hinder the implementation of e-procurement in the entities in Australia. Among the notable factors by the inquiry included poor technological systems and infrastructures, lack of skilled staff and low level of support from the top management. Njeru, Ngugi, Arasa, and Kahiri (2014) looked at the policies of procurement and their link with effectiveness in implementation of the practices of procurement. The study covered 40 tertiary training entities with adoption of descriptive design. It was noted that low compliance with the regulations guiding procurement, application of poor policies of procurement and low level of support from the top management have a direct link with the need to implement sound regulations and guidelines for procurement.

Otieno (2015) examined the key factors that shape how reforms of public procurement in Counties are implemented. The inquiry leveraged on descriptive design with targeted respondents being drawn from 36 out of the entire 47 counties. The findings showed that employee knowledge and skills and top management support are crucial in implementation of public procurement reforms. The study by Karungani, and Ochiri (2017) looked at the role of managerial support and leadership in the functional of procurement as they interact with the need for the entity to perform. It was noted that the function of procurement can only be successful when it has full support from the management and the leaderships of the entity.

In Kenya's Tertiary Public Training Institutions, Ngugi, Arasa, and Kahiri (2014) investigated procurement policies and the implementation of effective procurement processes. The study used a descriptive research approach to target procurement professionals at Kenya's 40 public tertiary training institutes. The sample size of 160 respondents was determined using a stratified random sampling procedure. The major data collection instrument was a questionnaire containing open-ended and closed-ended questions, utilizing both a nominal and a Likert-type scale style. According to the findings of the study, inadequate compliance with procurement legislation, the use of weak procurement policies, and a lack of top management support are all factors that influence the implementation of effective procurement procedures in Kenya's tertiary public training institutions.

The influence of leadership and management support for the procurement function on organizational performance, as studied by Karungani and Ochiri(2017), also demonstrated that procurement legislation must have the support of leadership and management to be successful. In order to improve procurement procedures, senior leadership should also foster collaboration among members of the business and inside the procurement department.

Karungani and Ochiri (2017) investigated the impact of procurement leadership and management support on organizational performance. The study used a survey technique and was done using a quantitative research design. The Nairobi County Government's procurement and finance department selected 87 employees via convenience sampling. Questionnaires were used to collect data. Leadership and management support improve procurement performance, according to the findings of this study. According to the conclusions of the study, top management is responsible for defining the organization's policies, vision, and goals; ensuring that employees are dedicated

to the organization's goals; offering guidance to support staff; and providing direction throughout the entire procurement process.

2.3.5 Implementation of Public Procurement Act in the State Corporations in Kenya

In a study to determine procurement practices and their impact on the performance of commercial state-owned enterprises in Nairobi city county, Mokogi (2015) found that poor procurement process management, including planning, budgeting, length of time involved, use of quotations, and subcontracting, directly led to inefficiencies, missed targets, and ultimately poor performance. Buyer-supplier connections, supplier selection methods, organizational capacity, and procurement process management are all procurement strategies that help businesses improve their performance. In their study of determinants affecting procurement function performance across public technical training institutes in Kisumu County, Wanyonyi and Muturi (2015) found that procurement planning is the most important feature, followed by contract management. The reason for this is that it is based on proper planning, which is accompanied by efficiency and effectiveness in achieving the desired outcomes. Poor management and planning in the procurement process are the most significant barriers in public procurement.

According to Munyua (2012), competitive sourcing initiatives such as tenders, bidding, supplier analysis, and supplier firm collaboration are used to make selection function as an advantage for a business. These activities are most effective at ensuring that the best supplier is chosen, which helps to improve the supply chain's cost and time performance. Similarly, values of transparency, accountability, and value for money must all be carefully considered. On the same point, Choge and Muturi (2014) identified three characteristics that contributed to project time and expense overruns in their study on factors affecting adherence to cost estimates. According to the factor analysis, there are eight major drivers to overruns: resource planning, interpretation of

requirements, contractor inabilities, and risk distribution works definition, government bureaucracy incorrect project preparation, and timeliness.

Lane, Foster, Gardiner, Lanceley, and Purvis (2013) studied the procurement process in construction projects and found it to be in need of reform. A methodology was established and deployed to chosen projects to diagnose and evaluate the procurement process for investment projects, as well as to initiate a continuous improvement program. A detailed literature review was conducted, as well as case studies, questionnaires, and interviews with experts in the field. The findings revealed that the biggest procurement issue is connected to project schedule delays and a lack of stipulated quality. To prevent this situation it is often necessary to dedicate important resources (money, personnel, time, etc.) to monitor and control the process.

A study by Mahdillou and Akbary (2014) focused on E-procurement adoption, its benefits and costs. Through the adoption and implementation of e-procurement systems and applications in an organization's supply chain network, the study aimed to illustrate and describe how e-procurement and relevant procurement policy adoption can contribute to creating value and reducing overheads associated with the procurement process. The study's findings revealed that e-procurement plays a critical role in supply chain management, particularly as outsourcing has grown increasingly common in the global commercial market. The available literature on procurement and e-procurement was evaluated with the goal of extracting the most plausible facts and data linked to how e-Procurement contributes to supply chain management value creation while decreasing costs and overheads.

A root-cause study of building cost overruns was undertaken by Rosenfeld (2013). The technique used during public procurement is thought to have an impact on the project's overall outcome. Delivery methods, payment mechanisms, and project-specific variables can all have an impact on

the overall result while examining the construction sector. As a result, the study questioned whether procurement technique selection predicts project success. Between 2007 and 2010, a survey was conducted on 222 road and railroad construction projects in Sweden, gathering predicted and actual factual data on cost and time overruns, as well as the number of non-conformances for each project. The finding was not that procurement methods do not forecast cost and time overruns, nor do they predict the frequency of inspection non-conformances.\.

2.5 Critique of the Existing Literature Relevant to the Study

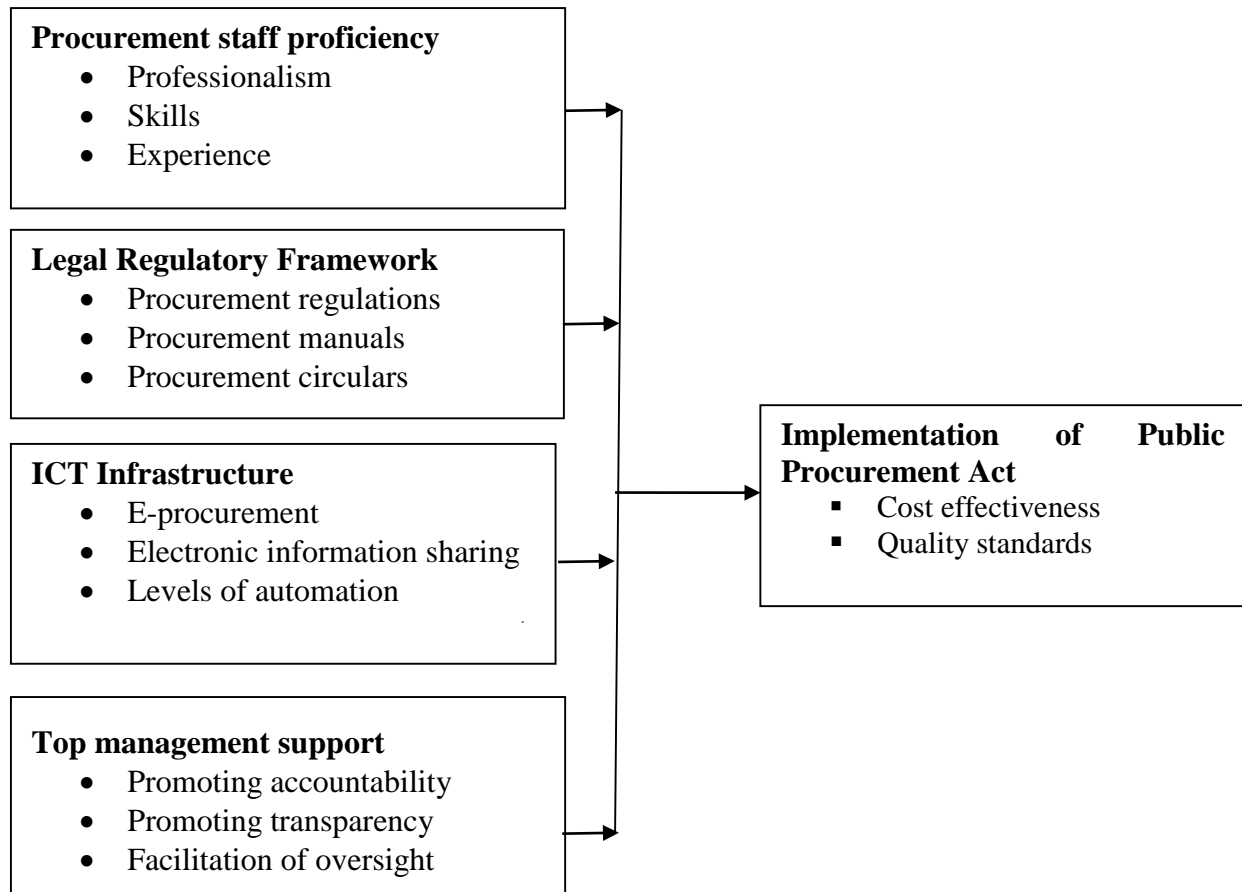
The review of empirical literature has indicated that studies have been conducted on implementation of public procurement Act in the public sector, but very few have focused on the determinants of implementation of public procurement Act in the public sector. The review of the literature also showed that the studies conducted by previous researchers only focused on the specific factors that affected implementation of procurement policy in the public sector. For instance, Bofand Previtali (2007); Kibet and Metto (2016) focused entirely on the effect of organizational culture on implementation of procurement policy, Kirimi and Shalle (2014), Weeks and Namusonge, (2012); Mahinda (2015) explored the effects of ICT adoption on the implementation of procurement policy in the public sector.

Further, the study by Osei-Tutu, Mensdah and Ameya (2011) was narrowed down to the level of compliance with the public procurement act (act 663) in Ghana of the existing national procurement regulatory framework. These studies have thus ignored or left out important factors such as strategic planning, enforcement, managerial skills, human resource management, capabilities to manage inter organizational relationships, skilled manpower; government policy, management support, technical and environmental factors that collectively or separately affect the implementation of public procurement Act which according to Kiama (2014) are essential. With

the increasing rate of public procurement malpractices there is need to conduct this study while focusing on more factors in order to address these shortcomings in the previous empirical works.

2.6 Conceptual Framework

Figure 2.1 is the conceptual framework of the inquiry linking the variables that were covered.



Independent Variables

Dependent variable

Figure 2.1: Conceptual Framework

The study's conceptual frame work is arrived at after reviewing various variables used in a number of studies reviewed in the literature. The independent variables of the study are legal Procurement Regulatory Framework, Procurement staff proficiency, ICT Infrastructure and Top management

support while the dependent variable is implementation of public procurement Act whose dimensions were cost effectiveness and quality standards.

2.7 Operationalization of Variables

Table 2.1 indicates how the variables of the proposed study was operationalized.

TABLE 2.1: OPERATIONALIZATION OF VARIABLES

Variable	Indicators	Scale	Analysis
Independent Procurement staff proficiency	<ul style="list-style-type: none"> • Professionalism • Skills • Experience 	Ordinal	Descriptive Statistics Inferential statistics
Independent Legal Regulatory Framework	<ul style="list-style-type: none"> • Procurement regulations • Procurement manuals • Procurement circulars 	Ordinal	Descriptive Statistics Inferential statistics
Independent Infrastructure	<ul style="list-style-type: none"> • E-procurement • Electronic information sharing • Levels of automation 	Ordinal	Descriptive Statistics Inferential statistics
Independent top management support	<ul style="list-style-type: none"> • Promoting accountability • Promoting transparency • Facilitation of oversight 	Ordinal	Descriptive Statistics Inferential statistics
Dependent Commercial state corporations in Kenya	<ul style="list-style-type: none"> ▪ Cost effectiveness ▪ Quality standards ▪ Profits 	Ordinal	Descriptive Statistics

Source: Researcher (2020)

2.8 Chapter Summary of the Literature

In the preceding chapter, we looked at a few theories that present interconnected notions that explain the independent and dependent variables. By analyzing the links between the two sets of data, the chapter also investigated the conception of the independent and dependent variables. Past studies, both global and local, were assessed in accordance with the following criteria: title, scope, and methodology, resulting in a critique. The research gap was discovered as a result of these criticisms. Knowledge-Based Theory, Institutional Theory, System Theory, and Agency Theory are the theories that underpin this research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The emphasis of this chapter is on the methods that shaped gathering of the data and how the analysis was done. It focuses on the design to be adopted, the targeted respondents, how gathering of data was done, the need to pilot test the tools as well as how the analysis of the findings were conducted. All these activities are geared towards realization of the stated objectives of the inquiry.

3.2 Research Design

This study adopted a descriptive survey research design. A descriptive design helped the study in establishing the determinants of implementation of public procurement act of commercial state corporations in Kenya. Kothari (2004) argue that descriptive design report things the way they exist in their original state. The design was useful determining the current state of the implementation of public procurement act and performance of commercial state corporations in Kenya

3.3 Target Population

The study targeted 33 commercial state corporations in Kenya (Commercial State Advisory Committee, 2020), as shown in Appendix I. The study targeted finance and the procurement managers from the 33 commercial state corporations in Kenya, giving a total of 66 respondents. The respondents were preferred because they are directly involved in procurement processes within the commercial state corporations in Kenya and are therefore suitably placed to understand some of the factors undermining implementation of public procurement Act in these institutions. Hence the study used a census due to its relatively low population size.

3.4 Data Collection Instruments

The views of the respondents were captured as aided by the questionnaire. Cooper and Schindler (2007) indicated that the questionnaire is cheaper and quicker to administer and this provides justification for the choice of this research instrument for this study. Questionnaire is preferable because it is standardized so it makes compilation of data easy, it consumes less time, can reach a large number of respondents and are simple and easy for respondents to complete. The questionnaire comprised of both open- ended and close-ended questions and the sections were informed by the objectives.

3.5 Data Collection Procedure

Primary data collection was collected by the use of structured questionnaires which was administered with the help of research assistants. This proceeded after approval of the proposal and a letter given by the University and pre-testing the instruments. Drop and pick method was used to collect data from the respondents (Steele, Bourke, Luloff, Liao, Theodori, & Krannich, 2011). The items were administered to the participants through the online method.

3.6 Pilot Study

According to Goodman, Meltzer, and Bailey, (2003), the purpose of conducting a pilot study is to enhance refinement of the data collection instrument (in this case questionnaire) to uphold the reliability and validity of the instrument (Saunders, 2011). Ten respondents were used for pilot testing to test the tools who were drawn from the non-commercial state corporations.

3.6.1 Reliability of the Instrument

Reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method as well as Cronbach’s Alpha coefficient (Adejimi, Oyediran & Ogunsanmi,

2010). The inquiry tested for reliability of the tools by leveraging on Cronbach Alpha coefficient values with 0.7 considered as the threshold.

3.6.2 Validity of the Instrument

The study tools are valid when they indicate what they are designed to show (Mugenda & Mugenda, 2009). Appropriate language was used to remove any ambiguity and allow free flow of information between the researcher and the respondents. Content validity was tested by subjecting it to experts in the field of procurement.

3.7 Data Analysis and Presentation

Once data has been gathered from the field, cleaning was conducted through excel sheet after which it was exported to the SPSS tool. Means and standard deviations were utilized in summarizing the data. Inferential statistics covering regression analysis was used to support drawing of inferences. The regression modelling of the inquiry is as specified:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where;

Y = Implementation of public procurement Act in the commercial state corporations in Kenya

X₁ = Procurement Staff Proficiency

X₂ = National Procurement Regulatory Framework

X₃ = ICT Infrastructure

X₄ = Top Management Support

ϵ = Error term

β_0 is the regression constant or intercept,

3.7.1 Diagnostic Tests

The following diagnostic tests were conducted before regression analysis as summarized in Table 3.1.

TABLE 3.1: DIAGNOSTIC TESTS

Diagnostic Test	Description	Test Specification	Rule of Thumb
Normality test	It will be used to establish whether the data is normally distributed	Histogram	Observe the pattern of the distribution including the peakedness
Multicollinearity test	It will be used to establish whether any of the independent variables of the study are highly correlated with each other	Variance of Inflation Factor (VIF)	Values of VIF within range of 1-10 signify absence of multicollinearity
Autocorrelation	It will be used to test whether there serial correlation in the data	Durbin Watson Statistic (d)	The value of d closer or equal to 2 signify absence of serial correlation in the data

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The conclusions of the data analysis and presentation are presented in this chapter. The research was based on primary data acquired using structured questionnaires. For analysis and presentation, the acquired data was coded into SPSS Version 23.0. Figures and tables are used to present the findings.

4.2 Response Rate

The researcher sent out 66 questionnaires to the respondents, and 43 of them were returned completely filled out, yielding a response rate of 65.2 percent. Mugenda and Mugenda (2003) support these findings, stating that a response rate of 50% or higher is considered sufficient for the study. The findings are as shown in Table 4.1.

TABLE 4.1:RESPONSE RATE

Gender	Frequency	Percent
Response	43	65.2
Non Response	23	34.8
Total	66	100.0

4.3 General Information

Respondents were asked to indicate their demographic information to establish whether the respondents of the study are a representative sample of the target population for generalization purpose. The findings are as shown in subsequent sections.

4.3.1 Gender of Respondents

The results on the genders of the respondents are as shown in Table 4.2.

TABLE 4.2: GENDER OF THE RESPONDENTS

Gender	Frequency	Percent
Male	32	74.4
Female	11	25.6
Total	43	100.0

The study found out that 74.4% of the respondents were male and 25.6% were female. This shows that there was gender diversity since both genders were represented in the study.

4.3.2 Level of Education

The study sought to find out the different levels of education of the respondent. The findings are shown in Table 4.3.

TABLE 4.3: LEVEL OF EDUCATION

Level	Frequency	Percent
Certificate	8	18.6
Diploma	11	25.6
Undergraduate Degrees	18	41.9
Post Graduate Degree	6	14.0
Total	43	100.0

From the findings, 41.9% of the respondents had undergraduate graduate degrees, 25.6% had Diplomas, 18.6% had certificate and 14.0% had post graduate degrees. This implies that majority of the respondents were literate and therefore were able to read and interpret questions correctly.

4.3.3 Years of Experience

The respondents were requested to indicate their working experience and the results are shown in Table 4.4.

TABLE 4.4: YEARS OF EXPERIENCE

	Frequency	Percent
less than 3 years	7	16.3
4-6 years	14	32.6
7-9 years	17	39.5
over 10 years	5	11.6
Total	43	100.0

It was evident that 39.55 of the respondents had worked for 7-9 years, 32.6% had worked for 4-6 years, 16.3% had worked for less than 3 years and 11,65 had worked for more than 10 years. This implies that majority of the respondents had worked in their respective organizations for a long period therefore gave reliable information.

4.4 Descriptive Statistics on the Main Variables of the Study

The respondents were requested to indicate their extent of agreement on the effect of independent variable on dependent variable. The findings are as shown in subsequent sections.

4.4.1 Procurement Staff Proficiency

Several statements on the effect of procurement staff proficiency on implementation of public procurement act of commercial state corporations in Kenya were identified by the researcher.

Respondents were asked to indicate the extent of their agreement with each statement. A scale of

1-5 where 1= strongly disagree, 2= disagree, 3= neutral, 4 = Agree and 5 = Strongly agree was used. The findings are as shown in Table 4.5.

TABLE 4.5: PROCUREMENT STAFF PROFICIENCY

Statements	Mean	Std. Dev
The procurement staff exhibit a high level of professionalism	3.72	.734
The procurement staff have adequate information and communication processing skills	3.67	.808
The procurement staff have adequate experience in procurement processes	3.65	.841
The procurement staff have adequate have a high level of technical expertise	4.09	.717
The procurement staff have adequate knowledge of procurement laws	3.88	.851
The procurement staff have understanding of the national procurement legislation that governs the body	3.97	.555
Overall	3.83	0.751

The overall mean was 3.83, indicating that respondents agreed that procurement staff proficiency affects the application of the public procurement act on the operation of Kenya's commercial state enterprises. Respondents agreed that procurement staff have adequate technical expertise with a mean of 4.09 and a standard deviation of 0.717, that procurement staff understand the national procurement legislation that governs the body with a mean of 3.97 and a standard deviation of 0.55, and that procurement staff have adequate knowledge of procurement laws with a mean of 3.97 and a standard deviation of 0.55. The findings are consistent with Khadija and Kibet (2015), who discovered that human capital competency criteria, such as possessing the necessary technical

skills and the county government's provision of foundational capabilities, were the top two components of HCC influencing public procurement procedures.

Respondents further agreed that the procurement staff exhibit a high level of professionalism with a mean of 3.72 and a standard deviation of 0.734, the procurement staff have adequate information and communication processing skills with a mean of 3.67 and a standard deviation of 0.808 and that the procurement staff have adequate experience in procurement processes with a mean of 3.65 and a standard deviation of 0.841. The results concur with Odero et.al, (2017) who asserted that competency of the staff had the largest link with performance of the procurement function.

4.4.2 National Procurement Regulatory Framework

The results on the effect of national procurement regulatory framework on implementation of public procurement act of commercial state corporations in Kenya are shown in Table 4.6.

TABLE 4.5: NATIONAL PROCUREMENT REGULATORY FRAMEWORK

Statements	Mean	Std. Dev
There is strict adherence to the existing national Procurement regulations	3.44	1.075
The organization identifies and upholds the relevant national-level procurement regulations	3.88	.585
The scope of the procurement manuals establish procurement rules for the firm	3.69	1.102
The procurement circulars support national legislations in terms of application	3.76	.840
Public procurement legislations promote regulation of procurement processes	3.83	.652
Overall	3.72	0.851

The study found out that the overall mean was 3.72 thus indicates that National Procurement Regulatory Framework has an effect on implementation public procurement act of commercial state corporations in Kenya. Moreover, respondents agreed that the organization identifies and upholds the relevant national-level procurement regulations with a mean of 3.88 and a standard deviation of 0.585 and that public procurement legislations promote regulation of procurement processes with a mean of 3.83 and a standard deviation of 0.652. The findings contradict with Asante (2017) who noted that poor systems of procurement in the public sector because of nonexistence of procurement plans, staff that were not professional and poor regulations.

Respondents further agreed that the procurement circulars support national legislations in terms of application with a mean of 3.76 and a standard deviation of 0.840 and that the scope of the procurement manuals establish procurement rules for the firm with a mean of 3.69 and a standard deviation of 1.102. The findings are in line with Njeru (2015) who indicated that an existing national procurement regulation framework affects the implementation of Procurement Act in the public sector and therefore advocates compliance to the framework. However, respondents were neutral that there is strict adherence to the existing national Procurement regulations with a mean of 3.44 and a standard deviation of 1.075.

4.4.3 ICT Infrastructure

The researcher extracted several statements on the effect of ICT infrastructure on implementation of public procurement act of commercial state corporations in Kenya. On a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= neutral, 4 = Agree and 5 = Strongly agree, respondents were asked to indicate the extent of their agreement with each statement. The findings are as shown in Table 4.7.

TABLE 4.6: ICT INFRASTRUCTURE

Statements	Mean	Std. Dev
The organization conducts e-procurement during procurement	3.65	.841
The organization conducts electronic information sharing	3.79	.887
There is a high level of automation of procurement processes	3.48	1.099
ICT infrastructure is up to speed for various procurement processes	3.81	.879
There is automation of key measurable aspects of public procurement in the firm	3.34	.783
There is access to public procurement legislation content by use of ICT	3.86	.940
The organization has installed ICT facility	3.62	1.155
Overall	3.65	0.941

The overall mean of the findings was 3.65, suggesting that the majority of respondents agreed that ICT infrastructure had an impact on the application of the public procurement act on implementation of public procurement act of commercial state corporations in Kenya. With a mean of 3.86 and a standard deviation of 0.940, respondents also agreed that there was access to public procurement legislation content via ICT, that ICT infrastructure is up to speed for various procurement processes with a mean of 3.81 and a standard deviation of 0.879, and that the organization conducts electronic information sharing with a mean of 3.79 and a standard deviation of 0.88. According to Waal (2011), information and communication technology (ICT) has a favorable impact on supply chain performance because it allows for efficient information sharing among supply chain stakeholders.

Respondents also agreed that the organization undertakes e-procurement during procurement (mean 3.65, standard deviation 0.841), and that the organization has built ICT facilities (mean

3.62, standard deviation 1.155). The findings agreed with Amemba, et al. (2013), who stated that the best way to increase procurement efficiency and effectiveness is to evaluate existing legislation and encourage broad use of technology in the procurement process management. However, respondents were neutral that there was a high level of automation of procurement processes with a mean of 3.48 and a standard deviation of 1.099 and that there was automation of key measurable aspects of public procurement in the firm with a mean of 3.34 and a standard deviation of 0.783.

4.4.4 Top Management Support

The descriptive analysis on top managements is as shown in Table 4.8.

TABLE 4.7: TOP MANAGEMENT SUPPORT

Statements	Mean	Std. Dev
The top management at the professional body promotes transparency	3.81	.932
The top management at the organization promotes accountability	3.74	.953
The top management facilitates oversight and provides a good basis to prevent corruption.	3.44	.907
The top management is dedicated to ethical corporate behaviour	3.62	.817
The top management in the organization promotes integrity	3.97	.739
The top management monitors the public procurement process	3.55	1.201
The top management apply procurement laws appropriately	3.67	.606
Overall	3.69	0.879

The researcher established that the overall mean was 3.69 and therefore implies that majority of the respondents agreed that top management support has an effect on implementation of public procurement act of commercial state corporations in Kenya. More so. Respondents were confident that the top management in the organization promotes integrity with a mean of 3.97 and a standard

deviation of 0.739, the top management at the professional body promotes transparency with a mean of 3.81 and a standard deviation of 0.932 and that the top management at the organization promotes accountability with a mean of 3.74 and a standard deviation of 0.953. These findings are in line with Otieno (2015) who asserted that employee knowledge and skills and top management support are crucial in implementation of public procurement reforms and Karungani, et.al (2017) who noted that the function of procurement can only be successful when it has full support from the management and the leaderships of the entity.

Respondents further indicated that the top management apply procurement laws appropriately with a mean of 3.67 and a standard deviation of 0.606, the top management was dedicated to ethical corporate behaviour with a mean of 3.62 and a standard deviation of 0.817 and that the top management monitors the public procurement process with a mean of 3.55 and a standard deviation of 1.201. The findings concurred with KACC (2008) who argued that top officials of procurement work to ensure that regulations have been distorted so as to pick on the interested entities for the purpose of procurement. Respondents were neutral that the top management facilitates oversight and provides a good basis to prevent corruption with a mean of 3.44 and a standard deviation of 0.907.

From the above findings of descriptive statistics, it is evident that the key issues that had been embraced in a bid to implement public procurement Act include strengthening the procurement staff competency (M=3.83), improving the national procurement regulatory framework (M=3.72), strengthening the level of support from the top management (M=3.69) and improving the ICT infrastructures (M=3.65). The Kenyan government has made efforts to implement the enacted laws governing procurement in the public domain. All the entities in the public sector should ensure that they use the Procurement Manual of 2009 that provides a way for application of the Public

Procurement and Disposal Act, 2005 and the Public Procurement and Disposal Regulations, (2006). It is a reference point that governs the practices of procurement in Kenya while ensuring that there is compliance with the regulations and laws governing procurement. It is only when the requirements established in the manual have been adhered to that public procurement can be done (PPOA, 2015). John and Mugo (2012) argued that procurement in the public sector is shaped by a number of attributes like accountability issues as characterised by abuse of powers. It was argued that majority of the procurement staff within the public sector organizations act with so much discretion. However, when there is a high degree of discretion among procurement staff without sufficient systems of internal control, it may open up a window for corruption. Offering incentives of performance go a long way to increasing accountability which may create a sound public procurement system. It is believed that adoption of ICT, the level of competency of the procurement staff and the operating ethics and procedures determine the soundness of the procurement systems in Kenyan government entities (Ngugi & Mugo, 2012).

4.4 Diagnostic Tests

The researcher conducted diagnostic test to establish the suitability of the data set before regressing. The findings are as shown in subsequent sections.

4.4.1 Autocorrelation Test

The researcher conducted autocorrelation analysis to establish whether the data set had serial correlation. The findings are as shown in Table 4.9.

TABLE 4.8: AUTOCORRELATION TEST

Model	Durbin-Watson
1	1.952 ^a

a. Predictors: (Constant), Top Management Support, National Procurement Regulatory Framework, Procurement Staff Proficiency, ICT Infrastructure

b. Dependent Variable: implementation of public procurement act

The findings indicated that the study had a Durbin-Watson of 1.952. Ideally, values of Durbin Watson Statistic closer or equal to 2 signify absence of serial correlation. Thus, since the d-value is closer to 2, it can be inferred that there was no serial correlation in the data.

4.4.2 Multicollinearity Test

The researcher conducted multicollinearity test to establish whether the variables were correlated. Variance of Inflation Factor (VIF) values of between 1 and 10 suggest that there is no multicollinearity in the data set. The findings are as shown in Table 4.10.

TABLE 4.9: MULTICOLLINEARITY TEST

	Collinearity Statistics	
	Tolerance	VIF
Procurement Staff Proficiency	.252	3.963
National Procurement Regulatory Framework	.812	1.231
ICT Infrastructure	.230	4.343
Top Management Support	.677	1.477

a. Dependent Variable: implementation of public procurement act

The findings revealed that procurement staff proficiency had a VIF of 3.963, national procurement regulatory framework had a VIF of 1.231, ICT infrastructure had a VIF of 4.343, and top

management support had a VIF of 1.911. The findings imply that all the variables had VIF values within the range of 1-10, an indication that there was no multicollinearity in the data set.

4.4.3 Normality Test

The researcher conducted normality test to establish whether the data sets were normally distributed. The findings are as shown in Figure 4.1.

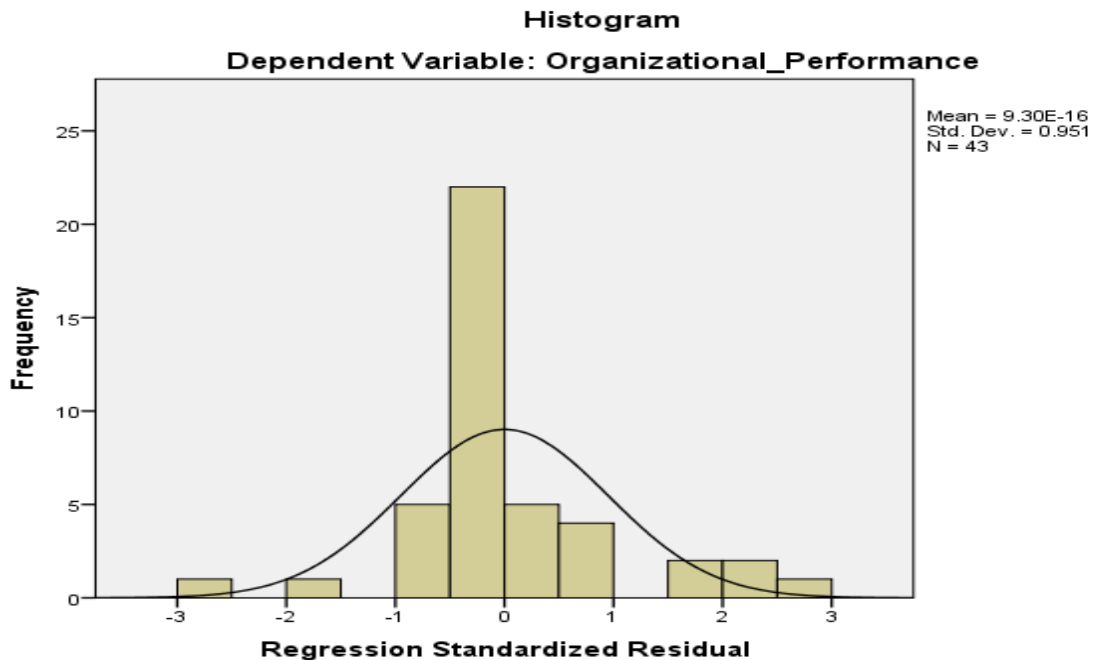


Figure 4. 1 Normality Test

From the results in Figure 4.1, the pattern displayed is a confirmation that the data was normally distributed and thus suitable for carrying out regression analysis.

4.5 Inferential Statistics

The researcher conducted regression analysis to establish the effect of training and development on employee performance at telecommunication companies. The findings of Model Summary, ANOVA, Correlation and Regression coefficients are as shown in subsequent sections.

4.5.1 Correlation Analysis

The findings of correlation analysis are presented in Table 4.11.

Table 4.10: Correlation Analysis

		Organizational Performance	Procurement Staff Proficiency	National Procurement Regulatory Framework	ICT Infrastructure	Top Management Support
Organizational Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	43				
Procurement Staff Proficiency	Pearson Correlation	.826**	1			
	Sig. (2-tailed)	.000				
	N	43	43			
National Procurement Regulatory Framework	Pearson Correlation	.351*	.316*	1		
	Sig. (2-tailed)	.021	.039			
	N	43	43	43		
ICT Infrastructure	Pearson Correlation	.849**	.835**	.131	1	
	Sig. (2-tailed)	.000	.000	.403		
	N	43	43	43	43	
Top Management Support	Pearson Correlation	.565**	.406**	.183	.540**	1
	Sig. (2-tailed)	.000	.007	.241	.000	
	N	43	43	43	43	43

From the findings, procurement staff proficient had a Pearson correlation of 0.826 and P value of 0.00 which shows a positive strong relationship between procurement staff proficiency and implementation of public procurement act. There was also a positive relationship between national procurement regulatory framework and organization performance (r=0.351 and P value= 0.021). Wanyonyi and Muturi (2015) did an inquiry into the factors that shape how procurement function in the technical training entities performs. It was noted that information technologies, staff competency and ethics had a direct link with the ability of the procurement function to perform. Odero and Ayub (2017) did an assessment of the practices of procurement and their link with the costs of procuring the goods with key emphasis on sugar manufacturing entities. It was shared that the link between procurement planning and performance of the procurement function was direct and significant. The competency of the staff had the largest link with performance of the

procurement function. Odero and Ayub (2017) investigated how procurement methods affect the procurement costs of state sugar producing enterprises in Western Kenya. Procurement planning had a good but negligible impact on procurement performance, whereas staff competency had a strong positive and significant impact on procurement performance of sugar production enterprises in Western Kenya investigated, according to the data. Kagendo (2010) investigated the impact of Kenya's public procurement and disposal legislation on parastatal procurement. The particular objectives were to determine the impact of the PPDA on the procurement process in Kenyan parastatals and to identify barriers to the PPDA's implementation. According to the study, the PPDA enhanced the competitiveness of parastatal procurement processes. PPDA also enhanced the quality of services and goods delivered, and it promoted ethical procurement practices among parastatals. Kiage (2013) focused on the elements that influence procurement performance at Kenya's ministry of energy. Procurement restrictions, according to the findings, have a considerable impact on procurement cost reduction.

Furthermore, ICT infrastructure was found to have a positive relationship with organizational performance ($r=0.849$ and P value = 0.000) and top management also had a positive relationship with implementation of public procurement act ($r=0.565$ and p value =0.000). This indicates that there was a positive relationship between the dependent and independent variables. Amemba, Nyaboke, Osoro, and Mburu, (2013) examined the challenges affecting public procurement performance process in Kenya. The study noted that efficiency and effectiveness in procurement can only be improved through review of existing legislations to encourage extensive use of technology in the management of the procurement process. Mutui and Chirchir (2014) did an inquiry into integrated system of financial management and its link with procurement activities. The results showed that difficulties can be experienced with the implementation of an IFMIS.

Mutui and Chirchir (2014) examined the role of Integrated Financial Management Information System on time and cost dimensions of procurement in the public sector in Kenya. The results showed that difficulties can be experienced with the implementation of an IFMIS.

4.5.2 Regression Analysis

The study sought to evaluate the determinants of implementation of public procurement act and performance of commercial state corporations in Kenya.

4.5.2.1 Model summary

The findings of coefficient of correlation R and coefficient of adjusted determination R² is as shown in Table 4.12.

TABLE 4.11: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900 ^a	.810	.790	.99595

a. Predictors: (Constant), Top Management Support, National Procurement Regulatory Framework, Procurement Staff Proficiency, ICT Infrastructure

The findings in Table 4.12 indicate that the value of R square is 0.810 showing that 81.0% change in organizational performance is explained by determinants of implementation of public procurement act. The other factors explain 19.0%. This implies that model fitness applied was relevant to the study

4.5.2.2 Analysis of Variance

An ANOVA was conducted at 95% level of significant, the findings of F_{Calculated} and F_{Critical} are as shown in Table 4.13.

TABLE 4.12: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	161.005	4	40.251	40.579	.000 ^b
Residual	37.693	38	.992		
Total	198.698	42			

a. Dependent Variable: implementation of public procurement act

b. Predictors: (Constant), Top Management Support, National Procurement Regulatory Framework, Procurement Staff Proficiency, ICT Infrastructure

The findings in Table 4.13 show that $F_{\text{Calculated}}$ was 40.579 and F_{Critical} was 2.59 an indication that $F_{\text{calculated}}$ is greater than F_{critical} an indication that the overall regression model was significant for the study. These further imply that the identified determinants had significant effect on implementation of public procurement Act. These findings are repeated by Munyua (2012), who discovered that competitive sourcing initiatives such as tenders, bidding, supplier analysis, and supplier firm engagement are necessary for selection to operate as a benefit to an organization. Similarly, values of transparency, accountability, and value for money must all be carefully considered. On the same theme, Choge and Muturi (2014) identified three characteristics that contributed to project time and expense overruns in their study on factors affecting adherence to cost estimates. A factor study identified eight major drivers to overruns, including resource planning, interpretation of requirements, contractor inabilities, and risk distribution works definition, government bureaucracy incorrect project preparation, and timeliness. Lane, Foster, Gardiner, Lanceley, and Purvis (2013) studied the procurement process in construction projects and found it to be in need of reform. The findings revealed that the biggest procurement issue is connected to project schedule delays and a lack of stipulated quality. Mahdillou and Akbary (2014)

conducted research on E-procurement adoption, as well as its benefits and costs. The study's findings revealed that e-procurement plays a critical role in supply chain management, particularly as outsourcing has grown increasingly common in the global commercial market. A root-cause study of building cost overruns was undertaken by Rosenfeld (2013). The finding was not that procurement methods do not forecast cost and time overruns, nor do they predict the frequency of inspection non-conformances.

4.5.2.3 Regression Beta Coefficients

In order to establish the individual influence of independent variables on dependent variables, the researcher conducted regression analysis. The findings are as shown in Table 4.14.

Table 4.13: Regression Beta Coefficient

	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	-15.768	2.987			-5.280	.000
Procurement Staff Proficiency	.502	.240	.294		2.089	.043
National Procurement Regulatory Framework	.185	.087	.166		2.114	.041
ICT Infrastructure	.505	.147	.505		3.430	.001
Top Management Support	.092	.055	.143		1.660	.105

a. Dependent Variable: implementation of public procurement act

The equation becomes;

$$Y = -15.768 + 0.502X_1 + 0.185X_2 + 0.505X_3 + 0.092X_4$$

Where;

Y = Implementation of public procurement Act in the commercial state corporations in Kenya

X₁ = Procurement Staff Proficiency

X₂ = National Procurement Regulatory Framework

X₃ = ICT Infrastructure

X₄ = Top Management Support

From the findings procurement staff proficiency and implementation of public procurement Act are positively related since the P value = 0.043 less than 0.05. A unit increase in procurement staff proficiency would result to an increase of 0.502 units in implementation of public procurement Act. Ngugi and Mugo (2012) did an assessment on internal factors that are linked with procurement activities and processes in the public sector context and noted that accountability and ethics among the staff has a direct link with the processes of procurement to a great extent in an entity. Badaso (2014) showed that inappropriate technology and incompetent personnel greatly undermines effective implementation of procurement policies in State Corporations. Nyaga (2017) did an inquiry into the factors that shape how procurements plans are implemented with emphasis on public hospitals and noted that the information systems and technologies had an effect on the procurement plans at KNH. Barsemoi, Mwangagi and Asienyo, (2014) did an assessment of the factors that shape the ability of the public sector entities to perform with specific emphasis on Henkel Chemicals (E.A). Information was gathered with aid of the primary means and it was documented that ICT adoption had a direct link with performance of the procurement function. Factors influencing procurement success in the private sector in Kenya were investigated by Barsemoi, Mwangagi, and Asienyo (2014). The regression analysis was used to assess the

association between the independent variables (staff competency, organizational structure, quality management, and information technology) and implementation of public procurement Act. In comparison to staff competence and organization management, the study found that the use of IT in the Henkel Chemicals (E.A) procurement process was the most related factor affecting procurement performance measured in terms of service delivery, while quality management was the least related factor affecting procurement performance. In Elgeyo-Marakwet County, Khadija and Kibet (2015) investigated the factors that influence the execution of public procurement rules and practices. The possession of the required technical skills and the provision of fundamental skills by the county government were found to be the top two aspects of HCC affecting public procurement procedures in the context of the analyzed human capital competency criteria. Wanyonyi and Muturi (2015) did an inquiry into the factors that shape how procurement function in the technical training entities performs. It was noted that information technologies, staff competency and ethics had a direct link with the ability of the procurement function to perform. Odero and Ayub (2017) investigated procurement procedures and their relationship with procurement costs, with a focus on sugar production companies. It was mentioned that there was a direct and significant link between procurement planning and procurement function performance. The most significant correlation between procurement function performance and staff competency was found. Odero and Ayub (2017) investigated how procurement methods affect the procurement costs of state sugar producing enterprises in Western Kenya. Procurement planning had a good but negligible impact on procurement performance, whereas staff competency had a strong positive and significant impact on procurement performance of sugar production enterprises in Western Kenya investigated, according to the data.

The study found out that national procurement regulatory framework had a positive relationship with organizational performance P value= 0.041. The findings are supported by Odero *et.al* (2017) who noted that there was a link between procurement planning and performance of the procurement function was direct and significant. The competency of the staff had the largest link with performance of the procurement function. An improvement in national procurement regulatory framework would lead to an improvement in organizational performance by 18.5%. This outcome concurs with Kiage (2013) who opined that there is a significant link between the procurement regulations and the ability to perform. Njeru (2015) was keen to bring out the factors that shape the effectiveness in implementation of the practices of procurement with emphasis on tertiary public training entities. The study indicated that an existing national procurement regulation framework affects the implementation of Procurement Act in the public sector and therefore advocates compliance to the framework. Ann (2014) examined the factors affecting payment of suppliers in the public sector, a descriptive research design was used. The findings of this study showed that for effective supplier payment there must be accuracy in the department and suppliers must make sure they give their full details and the type of relationship that exists between the department and the suppliers and also the practices of the government. Osei-Tutu, Mensdah and Ameya (2011) established the level of compliance with the public procurement act (act 663) in Ghana whereby overall compliance levels in the Ashanti and BrongAhafo Regions that were studied lied at 19.58% and 17.8% respectively. This indicated low compliance levels of public entities. The study confirmed that the Public Procurement Act 2003 (Act 663) was observed to offer solutions but not without challenges. Asante (2017) looked at the overrun of costs in the process of procurement with emphasis on Ghana. Inability to accept changes especially the new systems of technology and poor institutional policies were also seen to contribute to the challenges

in the procurement systems of the public sector organizations. Kiage (2013) examined the factors affecting procurement performance by focusing on the ministry of energy in Kenya. The study noted a significant link between the procurement regulations and the ability to perform. Kagendo (2010) investigated the impact of Kenya's public procurement and disposal legislation on parastatal procurement. The particular objectives were to determine the impact of the PPDA on the procurement process in Kenyan parastatals and to identify barriers to the PPDA's implementation. According to the study, the PPDA enhanced the competitiveness of parastatal procurement processes. PPDA also enhanced the quality of services and goods delivered, and it promoted ethical procurement practices among parastatals. Kiage (2013) focused on the elements that influence procurement performance at Kenya's ministry of energy. Procurement restrictions, according to the findings, have a considerable impact on procurement cost reduction.

Furthermore, a slight increase in ICT infrastructure results to 50.5% increase in organizational performance which had a positive relationship $P \text{ Value}=0.001$, The finding contradicts with Badaso (2014) who noted that inappropriate technology and incompetent personnel greatly undermines effective implementation of procurement policies in State Corporations. Wanyonyi and Muturi (2015) noted that information technologies, staff competency and ethics had a direct link with the ability of the procurement function to perform. Kirimi and Shalle (2014) reported on the factors affecting E-Procurement implementation in government ministries in Kenya. The results indicated that a well-organized ICT system improves the implementation of procurement policy in the public sector. Mahinda (2015) sought to establish challenges of implementing e-procurement in State Corporation. The study established that information and communication technology (ICT) has a positive effect on supply chain performance as it facilitates efficient information sharing among supply chain members. A study by Nurmandi and Kim (2015 on

making e-procurement work in a decentralized procurement system drew a comparison of three Indonesian cities. The central finding of the study is that human resources are the pivotal factors that determine the performance of local e-procurement. Amemba, Nyaboke, Osoro, and Mburu, (2013) examined the challenges affecting public procurement performance process in Kenya. The study noted that efficiency and effectiveness in procurement can only be improved through review of existing legislations to encourage extensive use of technology in the management of the procurement process. Mutui and Chirchir (2014) did an inquiry into integrated system of financial management and its link with procurement activities. The results showed that difficulties can be experienced with the implementation of an IFMIS. Mutui and Chirchir (2014) examined the role of Integrated Financial Management Information System on time and cost dimensions of procurement in the public sector in Kenya. The results showed that difficulties can be experienced with the implementation of an IFMIS.

Finally, an increase in top management support would increase organizational performance by 9.2% and has a significant effect on organizational performance p value of 0.105 more than 0.05. the findings contradict with Njeru, et.al, (2014) who noted that low compliance with the regulations guiding procurement, application of poor policies of procurement and low level of support from the top management have a direct link with the need to implement sound regulations and guidelines for procurement. KPMG (2008) studied how fast and efficient the procurement and disposal regulation were being adopted and implemented in Kenya after the introduction of the Regulations. The study found out that public procurement still suffers from fraud and misconduct. KACC (2008) further argued that top officials of procurement work to ensure that regulations have been distorted so as to pick on the interested entities for the purpose of procurement. Mauki, (2014) was interested in bringing out the factors that shape how PPDA is implemented with

emphasis on Kenyan judiciary. It was noted that ethics of the stakeholders, the degree of accountability, support from the top management and the competency of the staff all have a link with the implementation of the PPDA. Hawking, Stein, Wyld and Forster (2008) did an assessment of barriers that hinder the implementation of e-procurement in the entities in Australia. Among the notable factors by the inquiry included poor technological systems and infrastructures, lack of skilled staff and low level of support from the top management. Njeru, Ngugi, Arasa, and Kahiri (2014) looked at the policies of procurement and their link with effectiveness in implementation of the practices of procurement. It was noted that low compliance with the regulations guiding procurement, application of poor policies of procurement and low level of support from the top management have a direct link with the need to implement sound regulations and guidelines for procurement. Otieno (2015) examined the key factors that shape how reforms of public procurement in Counties are implemented. The findings showed that employee knowledge and skills and top management support are crucial in implementation of public procurement reforms. The study by Karungani and Ochiri (2017) looked at the role of managerial support and leadership in the functional of procurement as they interact with the need for the entity to perform. It was noted that the function of procurement can only be successful when it has full support from the management and the leaderships of the entity. In Kenya's Tertiary Public Training Institutions, Ngugi, Arasa, and Kahiri (2014) investigated procurement policies and the implementation of effective procurement processes. According to the study's findings, procurement elements that influence the implementation of effective procurement practices in Kenya's tertiary public training institutions include a low level of compliance with procurement regulations, the use of poor procurement policies, and a lack of top management support. Karungani and Ochiri (2017) investigated the impact of procurement leadership and management

support on organizational performance. Leadership and management support improve procurement performance, according to the findings of this study. According to the findings of the study, top management is responsible for formulating the organization's policies, vision, and goals; ensuring that employees are committed to the organization's goals; providing guidance to support staff; and providing direction to the organization's entire procurement process.

From the foregoing analysis, it is evident that various there are different factors that determine the implementation of the public procurement Act. In a given order, these factors include ICT infrastructure, procurement staff proficiency, national procurement regulatory framework and lastly the top management support. These findings are supported by Mokogi (2015) in a study to establish the procurement practices and its impact on the commercial state owned enterprises' performance within Nairobi city county observed that, poor management of procurement process including planning, budgeting, length of time involved, use of quotations and sub-contracting directly led to inefficiencies which missed targets and eventually to poor performance. Wanyonyi and Muturi (2015) in their study on factors affecting performance of procurement function among public technical training institutions in Kisumu County observed that procurement planning is the key aspect and management of contract following it. The key barrier in public procurement is experienced through poor management as well as planning in the process of procurement. A study by Munyua (2012) found that in order for selection to work as an advantage to an organization, there is the use of competitive sourcing initiatives which include: tenders, bidding, supplier analysis, and supplier firm collaboration. On the same note, principles of transparency, accountability as well as value for money need to be greatly considered. On the same note, a study by Choge and Muturi (2014) on factors affecting adherence to cost estimates identified three variables that contributed to Projects' time and cost overruns. Factor analysis established eight

main factors as; resource planning interpretation of requirements, contractor inabilities, and risk allocation works definition, government bureaucracy improper project preparation, as well as timeliness as contributors which are significant to overruns. Lane, Foster, Gardiner, Lanceley and Purvis (2013) conducted an evaluation and improvement of the procurement process in construction projects. The results obtained showed that the main problem of procurement is related to schedule delays and lack of specified quality for the project. A study by Mahdillou and Akbary (2014) focused on E-procurement adoption, its benefits and costs. The results of the study showed that e-procurement plays a vital role in managing the supply chain especially because outsourcing has become very common in the business market environment around the world. Rosenfeld (2013) conducted a root-cause analysis of construction-cost overruns. The conclusion was not that procurement procedures do not predict cost and time overrun nor do they predict number of non-conformances during inspection.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The findings reported in chapter four are summarized in this chapter. The findings have led to a conclusion and recommendations. There are also suggestions for future research drawn in this chapter.

5.2 Summary of the Findings

The purpose of this study was to assess the factors that influence the implementation of the public procurement legislation and the implementation of public procurement Act of Kenya's commercial state enterprises. The research questions were: What effect does procurement personnel proficiency have on the application of the public procurement legislation of Kenya's commercial state corporations? What impact does Kenya's legislative regulatory framework have on the implementation of the public procurement act on commercial state firms'? What impact does ICT infrastructure have on the application of Kenya's public procurement law and the performance of commercial state corporations? And how does senior management support for the public procurement legislation affect the functioning of Kenya's commercial state corporations?

A descriptive survey research design was used in this study. The study used a descriptive methodology to determine the factors that influence the implementation of the public procurement legislation of Kenya's commercial state enterprises. The study focused on 33 commercial state firms in Kenya, as well as finance and procurement managers from the 33 commercial state corporations. Structured questionnaires were used to collect primary data, which were administered with the assistance of research assistants.

5.2.1 Procurement Staff Proficiency

The study found out that Procurement staff proficiency has an effect on implementation of public procurement act of commercial state corporations in Kenya. Specifically, the procurement staff had adequate have high level of technical expertise and understanding of the national procurement legislation that governs the body which promoted efficiency during the procurement processes. Moreover, the procurement staff had adequate knowledge of procurement laws and exhibited a high level of professionalism and the procurement staff had adequate information and communication processing skills. It was also evident that the procurement staff had adequate experience in procurement processes.

5.2.2 National Procurement Regulatory Framework

The study found established that National Procurement Regulatory Framework had an effect on implementation public procurement act of commercial state corporations in Kenya. Moreover, the organization identified and upheld the relevant national-level procurement regulation so as to ensure the success of the whole procurement of process and the public procurement legislations promoted regulation of procurement processes for guidance and accountability. The study findings also revealed that procurement circulars supported national legislations in terms of application, the scope of the procurement manuals established procurement rules for the firm that ensured implementation of public procurement act to improve the implementation of public procurement Act.

5.2.3 ICT Infrastructure

On ICT infrastructure it was identified that the staffs were able to access the public procurement legislation content by use of ICT and ICT infrastructure was up to speed for various procurement

processes. The organizations conducted electronic information sharing which facilitated smooth flow of the operations within hence facilitating proper procurement processes. The organizations exercised e-procurement during procuring which ensures transparency as well as resource management. And the installation of ICT facilities in the organizations ensured efficiency the organization has installed ICT facility

5.2.4 Top Management Support

Top management support had an effect on implementation of public procurement act on performance of commercial state corporations in Kenya. It promoted integrity among the employees in regard to the procurement process also promoted transparency. The top management further promoted accountability and applied procurement laws appropriately to ensure that there was improvement in the organizational performance. Finally, the top management played a big role in ensuring that it was dedicated to corporate behaviour and monitored procurement processes for transparency purposes.

5.3 Conclusion

The study hereby concludes that staff proficiency significantly affected implementation of public procurement act of commercial state corporations in Kenya, this was associated with the fact that the procurement staff had adequate have high level of technical expertise and understanding of the national procurement legislation that governs the body which promoted efficiency during the procurement processes. Moreover, the procurement staff had adequate knowledge of procurement laws, information and communication processing skills and exhibited a high level of professionalism adequate. National procurement regulatory framework had a positive effect on implementation of public procurement act on performance of commercial state corporations in Kenya where, it promoted integrity among the employees in regard to the procurement process

and also promoted transparency. Furthermore, top management promoted accountability and applied procurement laws appropriately to ensure that there was improvement in the organizational performance.

Moreover, ICT infrastructure significantly influenced implementation of public procurement act on performance of commercial state corporations in Kenya this was seen by the ability of the staffs to access the public procurement legislation content by use of ICT and ICT infrastructure up to speed for various procurement processes. Organizations conducted electronic information sharing which facilitated smooth flow of the operations within hence facilitating proper procurement processes. On top management support, the study concludes that there was positive relation with organizational performance where there was promotion of integrity among the employees in regard to the procurement process also promoted transparency and accountability and applied procurement laws appropriately to ensure that there was improvement in the implementation of public procurement act on performance of commercial state corporations in Kenya

5.4 Recommendations

The study found that enacting the public procurement act has a considerable impact on the performance of commercial enterprises in Kenya. As a result, it is critical that all state businesses, whether commercial and non-commercial, use the best procurement methods to increase their performance, competitiveness, and effectiveness in providing public services. Policymakers should place a greater emphasis on enforcement since it provides an incentive for businesses to boost implementation and compliance, so enhancing their performance. The study also suggests that government policymakers place a greater emphasis on encouraging commercial firms to invest in e-procurement solutions. The government should also devise tactics to impose harsher punishments on officers found guilty of corruption, as well as offer employee training and

workshops to improve technical abilities. The study also suggests that the government form a procurement oversight committee to oversee the implementation of procurement legislation and practices.

5.5 Suggestions for Further Studies

The study looked at the factors that influence the implementation of the public procurement Act of Kenya's commercial state corporations. Future investigations should include mainstream government departments, county governments, and service providers, according to the findings. Because the study depended on primary data, future studies should do similar research using both primary and secondary data. Finally, the study covered 81.0% of the data and thereof other studies should be conducted cover other factors which can be explained by 19.0% beyond the scope of this study.

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APPENDICES

Appendix I: Questionnaire

Introduction

This questionnaire is intended for use in collecting data in pursuit of the objectives of the study titled “Determinants of implementation of public procurement act and performance of commercial state corporations in Kenya”. Kindly complete the questionnaire as per the instructions. Your participation is highly appreciated.

SECTION A: GENERAL INFORMATION

1. Kindly indicate your gender

Male () Female ()

2. Kindly indicate your highest level of education

Certificate () Diploma () Undergraduate degree () Post graduate degree ()

3. Kindly indicate the number of years you have worked with your present organization

Less than 3 years () 4-6 years () 7-9 years () Over 10 years ()

Section B: Procurement Staff Proficiency

5. Kindly indicate your agreement/disagreement with the following statements on procurement staff proficiency based on a scale of 1-5 where 5= Strongly Agree (SA); 4 = Agree (A); 3= Neutral (N); 2= Disagree (D) and 1= Strongly Disagree (SD)

Statements	1	2	3	4	5
The procurement staff exhibit a high level of professionalism					
The procurement staff have adequate information and communication processing skills					
The procurement staff have adequate experience in procurement processes					
The procurement staff have adequate have a high level of technical expertise					
The procurement staff have adequate knowledge of procurement laws					
The procurement staff have understanding of the national procurement legislation that governs the body					

6. In what other ways does procurement staff proficiency affect implementation of public procurement act in your organization?

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Section C: National Procurement Regulatory Framework

7. Kindly indicate your agreement/disagreement with the following statements on National Procurement Regulatory Framework based on a scale of 1-5 where 5= Strongly Agree (SA); 4 = Agree (A); 3= Neutral (N); 2= Disagree (D) and 1= Strongly Disagree (SD)

Statements	1	2	3	4	5
There is strict adherence to the existing national Procurement regulations					
The organization identifies and upholds the relevant national-level procurement regulations					
The scope of the procurement manuals establish procurement rules for the firm					
The procurement circulars support national legislations in terms of application					
Public procurement legislations promote regulation of procurement processes					

8. How else does the National Procurement Regulatory Framework affect the implementation of procurement act in your organization?

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Section D: ICT Infrastructure

9. Kindly indicate your agreement/disagreement with the following statements on ICT Infrastructure based on a scale of 1-5 where 5= Strongly Agree (SA); 4 = Agree (A); 3= Neutral (N); 2= Disagree (D) and 1= Strongly Disagree (SD)

Statements	1	2	3	4	5
The organization conducts e-procurement during procurement					
The organization conducts electronic information sharing					
There is a high level of automation of procurement processes					
ICT infrastructure is up to speed for various procurement processes					
There is automation of key measurable aspects of public procurement in the firm					
There is access to public procurement legislation content by use of ICT					
The organization has installed ICT facility					

10. In what other ways does ICT infrastructure affect the implementation of public procurement act in your organization?

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Section E: Top Management Support

11. Kindly indicate your agreement/disagreement with the following statements on top management support based on a scale of 1-5 where 5= Strongly Agree (SA); 4 = Agree (A); 3= Neutral (N); 2= Disagree (D) and 1= Strongly Disagree (SD)

Statements	1	2	3	4	5
The top management at the professional body promotes transparency					
The top management at the organization promotes accountability					
The top management facilitates oversight and provides a good basis to prevent corruption.					
The top management is dedicated to ethical corporate behaviour					
The top management in the organization promotes integrity					
The top management monitors the public procurement process					
The top management apply procurement laws appropriately					

12. Kindly suggest other ways through which the top management support affects implementation of public procurement act in your organization?

.....

Section F: Implementation of public procurement act on performance

13. Kindly indicate your agreement/disagreement with the following statements on Implementation of public procurement act in the commercial state corporations based on a scale of 1-5 where 5= Strongly Agree (SA); 4 = Agree (A); 3= Neutral (N); 2= Disagree (D) and 1= Strongly Disagree (SD)

Statements	1	2	3	4	5
The cost of procurement has significantly decreased					
There is high quality standards					
The level of acceptability towards the procurement legislations has improved					
The high profitability in the organization					

Appendix II: List of Commercial State Corporations

1. Agro-Chemicals and Food Company
2. Chemelil Sugar Company
3. East African Portland Cement Company
4. Gilgil Telecommunications Industries
5. Jomo Kenyatta Foundation
6. Kenya Airports Authority
7. Kenya Broadcasting Corporation
8. Kenya Electricity Generating Company
9. Kenya Literature Bureau
10. Kenya Ordinance Factories Corporation
11. Kenya Pipeline Company
12. Kenya Ports Authority
13. Kenya Power and Lighting Company
14. Kenya Railways Corporation
15. Kenya Civil Aviation Authority
16. Kenya Safari Lodges and Hotels
17. Kenya Seed Company Limited
18. Kenya Wine Agencies
19. Kenyatta International Convention Center
20. National Cereals and Produce Board
21. National Housing Corporation
22. National Oil Corporation of Kenya
23. National Water Conservation and Pipeline Corporation
24. Numerical Machining Complex
25. Nzoia Sugar Company
26. Postal Corporation of Kenya
27. Pyrethrum Board of Kenya
28. School Equipment Production Unit
29. South Nyanza Sugar Company
30. Telkom Kenya Limited
31. University of Nairobi Enterprises and Services Limited
32. New Kenya Co-operative Creameries Ltd
33. Kenya Electricity Transmission Company

Source; State Corporations Advisory Committee (2020)