

**PROCUREMENT METHODS AND OPERATIONAL  
PERFORMANCE OF STATE CORPORATIONS IN  
KENYA**

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**A Research Project Submitted For Partial Fulfilment of the  
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Business, and University of Nairobi.**

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## DECLARATION

I declare that this research project is my original work and has never been submitted to any other University for assessment or award of a degree.

Signature..... Date.....

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(D61/73061/2012)

This project has been submitted with our authority as the university supervisors.

Signature..... Date .....

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**Supervisor**

## **DEDICATION**

This research project is dedicated to my beloved wife, Esther Khakata, our adorable Children: Stella, Emmanuel and the youngest of the all, Shem, my parents Mr. and Mrs. Murunga, my brothers and sisters for their companionship in the project and in this life.

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My sincere appreciation also goes to the University of Nairobi and in particular the School of Business and the Jomo Kenyatta Memorial library for your support in this noble task, I remain heavily indebted.

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## ABSTRACT

Procurement methods strive to achieve multiple interests and objectives while at the same time enhancing operational performance. Procurement has an overall objective of minimizing inventory levels held while at the same time meeting the needs of the firm. Operational performance on the other hand aims at making inventory readily available to improve firm's operational performance. Firms embrace procurement methods that enhance efficiency and operational performance with the overall aim of getting the most value for money. In the recent past, there has been growing focus on the operational performance of state corporations. State corporations are increasingly faced with the challenge to do things efficiently but with fewer resources while at the same time improving service delivery to the citizens. There is increasing need for State Corporations to devote more resources to the delivery of services and streamline their operational performance. In pursuing these objectives, state corporations are faced with enormous operational challenges. The most common challenges include inefficiencies in their operations, huge losses, budgetary burdens and provision of poor services to the citizenry. This study sought to establish procurement methods used by state corporations in Kenya and ascertain if there was a functional relationship between the procurement methods and operational performance of the state corporations in Kenya. The research study involved a descriptive research design of cross sectional type where a sample of state corporations was selected across the ten sectors of the economy in Kenya. A total of 32 state corporations were selected for the study, each organization selected was given one questionnaire with targeted questions aimed at meeting the objectives of the study. To enhance consistency in the results, a standard questionnaire was developed with open ended questions addressing the twin objectives of the study. Quantitative data collected was analyzed by use of descriptive statistics to generate percentages, means, standard deviations and frequencies. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions. Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis. Data was also analyzed using Statistical Package for Social Scientists (SPSS). A regression was done and the results obtained interpreted. The study established that the procurement methods used by state corporations to a large extent are price based and hence may not necessarily guarantee the best value for money. Best value procurement methods such as negotiated procurement were used but to a small extent. Subjective and qualitative procurement methods such as specialized task, community participation and Force account were least used by the state corporations in Kenya and most of these were unknown by the state corporations.

The study concluded that there is a relationship between the procurement methods and operational performance of state corporations. The relationship varied between procuring for services, works and goods. With the impact on efficiency in procuring of services being greater than works and goods.

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# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the study

Organizations in today's business environment have a big challenge on how to remain competitive in the market through firm performance and supply chain performance. Supply chain performance impacts firm's performance. Supply chain management (SCM) is a strategic factor in the current business world for it is seen as a key element for increasing organizational effectiveness and for better realization of organizational goals such as enhanced competitiveness, better customer care and increased profitability. Firms supply chain spans all the movement of products, information and finance from suppliers until they offer utility to the final consumers. An optimized supply chain is made up of competitive firms. Supply chain performance directly affects quality, customer lead times, inventory levels and delivery times Keenan (2000), Jamie et al, (2010) Ngatia 2013) and Magutu (2013).

Decisions rendered at the firm level regarding resource allocation are not simply based on supply chain operational efficiencies but has implications on the overall firm performance and competitiveness. Competitiveness of firms is focused on revenue growth, operating cost reduction, working capital efficiency and fixed capital efficiency to maximize shareholder value. However, supply chains are becoming complex there are numerous elements within them that may stop organizations from achieving the firm core objective of remaining competitive through enhanced operational effectiveness Hassan (2012).

Operational effectiveness is a strategic element in accomplishing organizational objectives. Everrete and et al (2001). Organizational operational strategy must therefore be developed taking into consideration some primary basis of competition: quality that includes product performance, cost efficiency that entails low product price, dependability that includes reliable and timely delivery of orders to customers, and flexibility that entails responding rapidly with new product changes in output volume. In any industry, the firm with the fastest response to customer demands has the potential to achieve overwhelming market advantages, Peter Baily and et al (2008).



### **1.1.1 Procurement Methods**

Procurement methods are procedures used by procuring entities to acquire goods, services and works. Peter Baily and et. al (2008) defined procurement as the process of acquiring goods for an organization in line with the set policies or methods that govern the choice of suppliers and products. They further summarized the main stages in the procurement process as follows: recognition of need, specification, make or buy decision, source identification, source selection, contracting, contract management, receipt, possibly inspection, payment and fulfilment of need. Procurement methods aim to utilize sound business practices which maximize value of the organization.

Factors taken into consideration in the selection of a procurement method include: costs of the lifetime of the goods or services, status and standing of suppliers, exact details of equipment, goods, or services offered, financial aspects including payment terms, basis of contractual price, transport, operating costs, extent of suppliers through life and assistance with disposal, Peter and et.al (2008). Comparison of the effectiveness of different procurement methods may focus simply on associated costs which may include management costs for ensuring operational performance is optimized, Francis and et. al(2009).

Beard (2001) identified the following categories of procurement methods: Price-based procurement methods that are further divided into: low bid and two-step sealed bidding, best value procurement that include: competitive negotiation, weighted criteria, and fixed budget and based design, subjective and qualitative procurement that include: sole source and qualification based. The most commonly used procurement methods in Hong Kong include: sequential traditional, accelerated traditional, competitive design, Turnkey package, and Management contracting and construction management Sai (2001).

Other common procurement methods include: Tendering which could be either open or restricted nationally or internationally, request quotations, request proposals, and direct procurement/ single sourcing, Walter (2003 and Helena (2010). Procuring entities can also use a database of prequalified suppliers who are directly invited to tender. The most commonly used procurement methods in the construction industry in Nigeria include:

Package deal, management constructing, construction management and public private partnerships Babatunde and et al (2010).

The United Commissions on International Trade Law of (2014) summarized the following categories of procurement methods: Tendering that include open tendering, restricted tendering, and two stage tendering, negotiated procurement methods that include request for proposals with dialogue or without negotiation, consecutive negotiation and competitive negotiation, request for quotation, electronic reverse auction and single source procurement. Other procurement methods recommended by the World Bank Procurement guidelines include force account, community participation, and procurement from other entities, public private partnerships and award of concessions. A number of procurement methods are specified in the Public Procurement Laws and Regulation of the three East African countries. They are: Open Tendering (National and International), Restricted Tendering (National and International), Quotations and Proposals, Direct Procurement/ Single Sourcing. The procurement method adopted has an impact on operational performance of the organization.

### **1.1.2 Operational Performance**

Operational performance refers to the processes geared at coordination and enhancement of work activities and outcomes within an organization. It is crucial for the success of any organization. Efficient and effective operational performance is expected to improve an organization's competitive advantage through price/cost, quality, delivery dependability, time to market, and product innovation, customer lead times, inventory levels, and delivery time Ngatia (2013). A well-defined system of operational performance measures can be a powerful means for prioritizing organizational goals and will aid achieving the organizational goals, Kirkendall (2010).

Indicators of efficient operational performance include: improved financial performance, lead time performance, improved responsiveness, customer loyalty, innovation, quality products, and reduction in excess inventory levels and improvements in product/process design, Johnson et al. (2003). Evaluation of operational performance of organizations should utilize both financial and non-financial measures, although most organizations have

not made use of a balanced framework for financial and non-financial indicators Kaplan and Norton (1992). Mark (2006) identified order lead time as the most important operational measure. He further defined order lead time as the time that lapses between the receipt of an order and shipment of the product to the customer. He further identified other performance measures as functionality of order generation, planning, production scheduling, inventory management and quality.

In the recent past, there has been growing focus on the operational performance of state corporations. State corporations are increasingly faced with the challenge to do things but with fewer resources with the overall aim of improving service delivery to the citizens. There is increasing need for State Corporations to devote more resources in the delivery of services and streamlining their operational performance. In pursuing these objectives, state corporations are faced with enormous operational challenges. The most common challenges include inefficiencies in their operations, huge losses, budgetary burdens and provision of poor services to the citizenry, Kiarie (2007) and Mbuba (2010). There is therefore need for state corporations to find new and innovative ways to reduce costs and streamline their operational performance, Kagendo (2012).

### **1.1.3 State Corporations in Kenya**

The State Corporation Act of Kenya, CAP 446 of 1986 defines a state corporation as a body established by the Government to carry out a specific function. State Corporations are regarded as government vehicles for conducting business. They could either be permanent or temporarily established. State corporations are also referred to as Executive agency or Semi- Autonomous Government Agencies (SAGAs). Kiarie (2007) classified state corporations into four categories: Utilities, Regulatory, Commercial or Industrial and Development Finance. Utilities parastatals are monopolies which have little or no competition from the private sector. Regulatory parastatals are semi-monopolies and they play a specific role. Such roles may involve development of a sub-sector, regulation of production prices and marketing. Commercial or industrial parastatals engage in competition with the private sector. Development finance parastatals facilitate industrial development and the participation of nationals in the economy.

The takeover of goods and services by the public sector which includes state corporations is known as public procurement Uyarra and Flanagan (2010). Value for money in public procurement is achieved through preventing waste and fostering competition, OECD (2007). Public procurement systems in Kenya have not been operating efficiently Mwangi (2008). World Bank (2011) identified areas of inefficiency in the Kenya public procurement as follows : inadequate procurement capacity, overuse of request for proposal method, and lack of procurement planning. The perennial problem that has affected procurement process in state corporations is the interference of the procurement process Kagendo(2012).

Procurement in state corporations is governed by the Public Procurement and Disposal Act of 2005 and Regulations of 2007. Procurement methods recommended by the PPDA are: Tendering, Direct procurement, Request for Quotation, Request for Proposal and Low Value Procurement.

## **1.2 Statement of the Problem**

Procurement methods strive to achieve multiple interests and objectives while at the same time enhancing operational performance. Procurement has an overall objective of minimizing inventory levels held while at the same time meeting the needs of the firm. Operational performance on the other hand aims at making inventory readily available to improve firm`s operational performance. Firms embrace procurement methods that enhance efficiency and operational performance with the aim of getting the most value for money. Antonio (2001), Kagendo (2012) and Magutu (2013).

Procurement methods in state corporations are riddled with multiple regulatory policies and bodies that that the state corporations have to adhere to Kagendo (2012). Kagendo (2012) further concluded that adopting efficient and effective procurement methods is one of the ways of improving operational performance of state corporations. State corporations are confronted with many challenges that constrain their effective delivery capacities and operational efficiency Mbuba (2010). The fiscal problems affecting most state corporations are: operational inefficiencies, losses, budgetary burdens and poor service delivery Kiarie (2007).

Previous studies have also not conclusively focussed on procurement methods and operational effectiveness of state corporations. Marwa (2006) found that on average projects procured using two-step procurement method were on average 3% over budget and delivered 2% behind project schedule while one-step projects were on average over budget and delivered 3.5% behind schedule. He further found that the qualification based method performed the worst in regard to budget and schedule and were on average 5.6% over budget and delivered 3.5% behind schedule. However this study examined design based projects based in the United States and may not be applicable in the context of state corporations in Kenya.

Tingting (2011) in his study found that the obstacles of effective methods in public procurement included lengthy lead times and high transactions costs. However this study was focussed on state corporations in New Zealand. A number of studies have been done on the effectiveness of state corporations. Odhiambo and Kamau (2003) in their study found that the bulk of corrupt practices in Kenya occurred in public procurement. However, their study focused on the ethical practices of procurement officers in state corporations. There was no reference made on the procurement methods and operational performance of the corporations in the study. A study by Kiarie (2007) argued that the initiatives adopted to make state corporations more effective were inadequate and the state corporations will not realize their intended objectives. Mukasa (2010) found that the reforms within government procurement systems did not adequately address issues of accountability, transparency value for money, a professional workforce and ethics. However this study did not focus on procurement methods. Further, issues of accountability, transparency, professional workforce and ethics are not good measures of operational performance.

Hassan (2012) found that a number of procurement practices determined how goods and services were acquired within public organizations. He further found that these practices were aimed at enhancing service delivery for these organizations. However, his study was limited to National Social Security Fund in Kenya and hence may not be applicable to state corporations as whole.

Generally previous studies conducted have not conclusively addressed procurement methods and operational performance. It is on this basis that this study sought to establish the procurement methods used by state corporations in Kenya and ascertain if there is a functional relationship between procurement methods and operational performance of state corporations in Kenya.

This study sought to answer the following research questions: What are the Procurement Methods commonly used by State Corporations in Kenya? And is there a relationship between procurement methods and operational performance of state corporations in Kenya?

### **1.3 Objectives**

The specific objectives this study were:

- i) To determine the procurement methods commonly used by state corporations in Kenya; and
- ii) To establish the relationship between procurement methods and operational performance of state corporations in Kenya.

### **1.4 Value of the Study**

This study will contribute to the existing literature in Public Procurement. The study is expected to make several contributions to theory, academia, policy makers and government in the area of public procurement. The findings of this study are likely to benefit researchers in their efforts towards understanding the relationship between procurement methods and operational performance of state corporations. The study will also highlight the common procurement methods used by state corporations in the acquisition of goods, services and works.

This study will be a reference point for researchers in the area of public procurement and other related topics. The findings will assist state corporations understand the procurement methods that can be adopted to enhance their operational efficiency.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviews various studies that have been conducted in procurement methods and operational performance. The issues discussed in this section include procurement methods and their impact on operational performance. The section discusses in detail the various methods of procurement and the parameters for measuring operational performance.

### **2.2 Procurement Methods**

Procurement methods are the procedures used by the procuring entities to acquire goods, services and works. These methods can either be competitive or non-competitive. The type and value of the contract are important factors that determine the procurement method adopted. There's a preference for using competitive methods of procurement given that they tend to promote transparency, economy and efficiency, and limit favoritism. There are various procurement methods depending on the category of procurement. The United Nations Commission on International Trade (UNCITRAL) model law on public procurement identifies the following common procurement methods: Open tendering, restricted tendering, two stage tendering, request for quotation and single source procurement.

According Beard (2001), procurement methods are divided into three broad categories: Price-based procurement methods that include low bid also known as procurement of low value items, two step sealed bidding , best value procurement methods that include competitive negotiation, weighted criteria and fixed budget, subjective and qualitative procurement methods. Price-based procurement methods that are further divided into: low bid and two-step sealed bidding, best value procurement that include: competitive negotiation, weighted criteria, and fixed budget and based design, subjective and qualitative procurement methods that include: single sourcing and qualification based sourcing. According to Walter (2003) and Helena (2010), the most common procurement methods are: tendering that could either be open or restricted either nationally or

internationally. Open international tendering is also open to participation on equal terms by all providers but it specifically seeks to attract foreign firms. It is mainly used where national providers may not provide competitive bids Odhiambo and Kamau (2005).

### **2.2.1 Tendering**

The need for open and fair competition is very important. All prospective Suppliers/vendors must be treated (and be seen to be treated) fairly in an open and Transparent manner with the same access to information about the proposed procurement to enable them to submit quotations/tenders on the same basis State of Victoria, (2008). Procurement as a process should be able to meet value for the money spent by the procuring entity. There is need to obtain the best quality and value for the price and that the quality of the goods/services/works that meet the entity's criteria and cost constraints.

The other important practice relates to accountability. In Kenya, open tendering is the most used tendering system. It normally happens at two levels: Open national tendering, which is open to participation on equal terms by all providers through advertisement. It mainly targets domestic firms although foreigners are allowed to participate. Open international tendering is also open to participation on equal terms by all providers but it specifically seeks to attract foreign firms.

### **2.2.2 Direct Procurement/ Single Sourcing**

Direct Procurement is a subjective method of procurement and may not guarantee best value in the procurement process, Beard (2001).

According to World Bank Procurement guidelines (2014), direct procurement may be used in the following circumstances: for an existing contract, for standardized equipment for example spare parts for heavy duty machines, where the required equipment is only available from a single source and in exceptional circumstance for example response to natural disasters.

Additionally, Zambia Public Procurement Act provides for direct bidding, where the invitation for bid has not been published nor advertised in the papers and where an existing tender is extended for additional works, goods or services. The Public Procurement Act of 2005 provides that direct procurement may only be used in the following circumstances:



there is only one person who can supply the goods, works or services, there is no reasonable alternative or substitute for goods, works or service, there is an urgent need for the goods works or services being procured, because of urgency the other available methods are impractical and the circumstances that gave rise to the urgency were not foreseeable and were not the result of dilatory conduct on the part of the procuring entity.

### **2.2.3 Request for Quotations and Proposals**

Quotations and proposals are simplified procurement procedures, which compare price quotations obtained from a number of providers. Quotations are used mainly in works, while proposals are used for services, Odhiambo and Kamau (2003.)

According to C.M.L Emiliani (2000) quotations enable buyers to calculate prices more accurately and is much better than where a buyer alone estimates the prices. Article 46 of the United Nations Commission on International Trade provides each supplier or contractor from whom a quotation is requested shall be informed of any changes in transport and insurance charges, customs duties and taxes that are to be included in the prices.

The RFQ is much better than when buyers alone would typically prepare, thus enabling suppliers to calculate their prices more accurately. M.L. Emiliani (2000).

Request for quotation, request for proposal and direct procurement are very common procurement methods in public procurement, Walter (2003) and Helena (2010).

The Public Procurement Act 2005 provides that a procuring entity may use a request for quotations if . (a) the procurement is for goods that are readily available and for which there is an established market; and (b) the estimated value of the goods being procured is less than or equal to the prescribed maximum value for using requests for quotations.

#### **2.2.4 Negotiated Procurement Methods**

According to Bowen (1999), clients and project managers and contractors had overwhelming preferences for negotiated procurement methods over other methods of procurement. Beard (2001) identified negotiated procurement as one of the best value procurement methods that ensures efficiency in the utilization of organizational limited resources.

#### **2.2.5 Low Value Procurements**

The Public Procurement Act 2005, provides that a procuring entity may use low value procurement where the estimated value of the goods, works or services are less than or equal to the prescribed maximum value for that low procurement procedure. While on the other hand the World Bank Procurement Guidelines and the Zambia Public Procurement Authority allows for procuring from other entities and community participation in low value procurements.

#### **2.2.6 Force Account**

This procurement method has been recognized by both the World Bank Procurement Guidelines (2014) and the Zambia Public Procurement Authority. According to the World Bank Procurement Guidelines, force account is a construction method where the procurement entity utilizes its own personnel and equipment. According to the Zambia Public Procurement Authority, Force account may be used where: the quantities of work involved cannot be defined in advance, the works are small and scattered or remote locations for which qualified construction firms are unlikely to bid at reasonable prices, risks of unavoidable work interruptions are better borne by the procuring entity other than the bidder or there is an emergency requiring prompt action.

#### **2.2.7 Procurement from Other Entities**

According to Zambia Public Procurement Authority, a procuring entity may purchase directly from another Government Agency without the application of other procurement methods where: There is no foreseen benefits in purchasing from a supplier and where the

Government Agency is able to meet all the procuring entity requirements as specified in the statement of requirement for a particular procurement need. The World Bank Procurement guidelines provides for procurement from other specialized entities such as the United Nations provided it is the most economical and efficient way of procuring small quantities of off-the shelf goods primarily in the field of education, health and rural water supply and sanitation, World Bank Procurement Guidelines (2014) and Zambia Public Procurement Authority, (2014).

### **2.2.8 Community Participation**

This method is used where in the interest of project sustainability or in order to achieve certain specific social objectives of the project it is desirable in selected project components to (i) call for the participation of local communities and/or nongovernmental organizations (NGOs), or (ii) increase the utilization of local know-how and materials, or (iii) employ labor-intensive and other appropriate technologies, the procurement procedures, specifications, and contract packaging shall be suitably adapted to reflect these considerations, provided these are efficient, World Bank Procurement Guidelines (2014) and Zambia Public Procurement Authority (2014).

### **2.2.9 Public Private Partnerships**

According to Babatunde (2010) public private partnership is an attempt by the Government to tap from the enormous private resources by way of diversification and letting private hands partake in the provision of fundamental governmental responsibilities of providing basic social and infrastructural amenities.

### **2.2.10 Traditional and Non-Conventional Procurement Methods**

According to Babatunde (2010) traditional procurement methods are project procurement methods where three sequential phases of design, bid and build are identified as separate tasks. This is traditionally referred to as the competitively bid contract. This method allows for contractors that fill competent to bid for projects in a free atmosphere similar to competitive market environment. This method is commonly used in the procurement of works and other related construction contracts.

According to Ashworth and et. al (2007) identified the following non-conventional procurement methods: Design and Build, this method gives the client a single point of contact and the client commits to the cost of construction as well as cost of the design. Package deal on the other hand is where the contractor provides off-the shelf building. The building is done in phases so that it can be adjusted at any given time by the request of the client. In a management contracting, the permanent works are constructed under a series of contracts placed the management contractor after approval by the client. Under construction management contractors are contracted directly to the client and the construction manager manages the process on a simple consultancy basis. Construction management requires constant involvement by the client and it is only suitable for experienced clients in construction works.

### **2.2.11 Specialized Task Organizational Procurement Approach**

According to Adekunle (2009) the project in question is procured from among organizations that are specialized in the various development, design, manufacturing, supply, installation, construction and maintenance tasks. Under this method, the procuring entity forms an STO management team which procures the total project/ building development from among specialized designers. An STO management committee comprises of designers who act under the leadership of the project manager. The STO procures work packages with detailed technical and engineering design documents from among specialized contractors and suppliers. Life cycle costing, usability, alternative materials and maintenance services form part of competitive criteria for tender evaluation. The advantages of STO are as follows: a) it allows competition among alternative designs of STOs. b) it shifts competition to design, life-cycle management, materials and maintenance solutions c) It exploits expert knowledge in shaping construction process project by project d) It adds more value to project implementation processes due to short feedback loops and clearly defined user requirements e) It prefers specialization over generalization f) It eliminates the weaknesses of the fully fragmented approaches g) It enhances construction productivity and eliminates waste of construction resources by integrating demand and supply chain. The STO method is more applicable to building projects where prefabricated elements and standardized materials are used.

## **2.3 Operational Performance**

Ngatia (2013) defined operational performance as the processes geared at coordination and enhancement of activities and outcomes within an organization. She further concluded that efficient and effective operational performance is expected to improve an organization's competitive advantage. The process of managing the firm's unique operations and processes resources like logistics networks, customer loyalty technology and their casual relationship is a critical success factor in creating competitive advantage and superior performance.

Organization's own operations need to be managed strategically to meet customer needs, Indicators of efficient operational performance include: improved financial performance, lead time performance, improved responsiveness, customer loyalty, innovation, quality products, and reduction in excess inventory levels and improvements in product/process design. Enhancing value addition through quality improvement is another indicator of enhanced operational performance. Procurement methods adopted will determine how goods, services and works acquired by an organization enhance the organizational operational value, Johnson et al, (2003), Barnes (2009), Hassan (2012) and Magutu 2013).

### **2.3.1 Improved service delivery**

Organizations are increasingly faced with the challenge to do things but with fewer resources. There is increasing need for state agencies to devote more resources in service deliver through streamlining operational performance. State owned enterprises have particularly been criticized for the lengthy procurement methods that have hindered the achievement of this objective Mbuba (2010).

### **2.3.2 Reduced customer complaints**

Customer responsiveness is high on operations manager's agenda. Companies must be able to adapt quickly to the increasing and unpredictable shifts in customer demand. Retailers are insisting on even tighter delivery windows and reduced cycle times Meredith (1998).

Customer responsiveness is high on operations managers' agendas. Companies must be able to adapt quickly to the increasingly unpredictable shifts in customer demands, as

illustrated in the USA by the purchasing power of retail giants such as Wal-Mart and P&G's, Meredith, Retailers are insisting on even tighter delivery windows and reduced cycle times. Research on how to obtain greater efficiencies in product development, sourcing, production and distribution indicates that companies must interface more closely with suppliers and customers. There is an increasing emphasis on squeezing costs out of supply chain.

### **2.3.3 Efficient capacity utilization**

According to Johanna et al. (2003) unavailability of demand visibility is one of the biggest challenges for supply chain management. This is given that order information often gives delayed and distorted information of end customer demand and the actual happenings in the market; with the distortion increasing upstream and making demand look variable when the end customer demand is level. Inventory management based on this distorted information leads to operating under capacity, poor product availability, and overstocking Lee et al. (1997).

### **2.3.4 Quality improvement**

There are no generally accepted measures of quality. Frequently used measures include surveys of users, changes in inputs, the range or number of outputs and performance indicators, such as a systematic assessment of user complaints Nguthur (2013).

### **2.3.4 Supply chain integration**

Every organization should work like a system where every activity and function especially supply chain performance and firm operational performance must contribute to the achievement of the overall business goal. Shen et al., (2004)

According to Adekunle (2009) one of the advantages of Specialized Task Organizational Procurement Approach is that it enhances construction productivity and eliminates waste of construction resources by integrating demand and supply chain and hence improving organizational operational efficiency.

### 2.3.5 Order lead time

Order lead time is the time that lapses between receipt of an order and shipment of the product to the customer. Order lead time is the most important measure of operational performance Mark (2006).

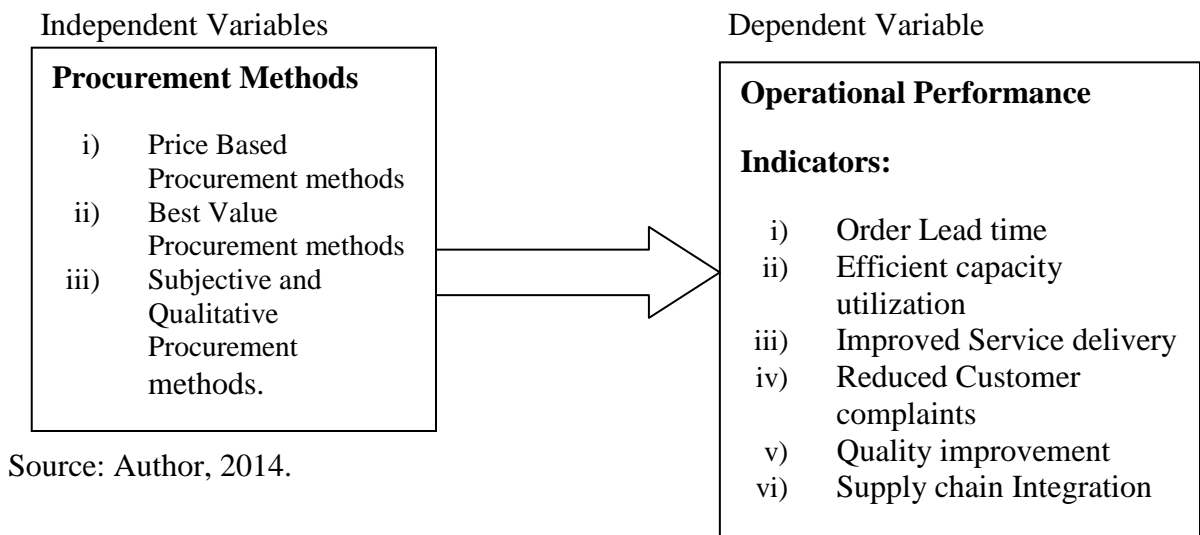
### 2.3.6 Reduction of Overall Inventory

End to end supply chains which have integrated information are therefore good in inventory replenishment, increase in inventory turnover, reduction of order cycle, and reduction of inventory of entire supply chain since they reflect the actual demand, reduce the pull-whip effect, reduce uncertainties and shortens lead time Grean et al. (2000).

### Conceptual Framework Model:

The conceptual framework explains the relationship between independent and dependent variables in the study. In this study operational performance is the dependent variable since its success depends on the procurement methods adopted. Measures of operational performance include: improved service delivery, efficient capacity utilization, integrated supply chain function (matching demand and supply), quality improvement, reduced lead times and reduced customer complains as shown in figure 2.1 below.

**Figure 2.1 Conceptual Framework Model**



Source: Author, 2014.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter outlines the methodology that was used to conduct this study. It discusses research design, target population, data collection and analysis methods.

### **3.2 Research Design**

The research was both qualitative and quantitative. The study involved collection of quantitative data that was analysed using descriptive and inferential statistics, Saunders (2009). The function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible. The Office of Human Research Protections (OHRP) (2013) defines a descriptive study as one in which information is collected without changing the environment and conducted to demonstrate relationships between things. OHRP (2013) continue to elaborate that a descriptive study can involve a one-time interaction with groups of people also known as cross-sectional study or a study that might follow individuals over time, also known as longitudinal study.

This study therefore sought to establish the procurement methods used by state corporations in Kenya and ascertain if there was a functional relationship between the procurement methods and operational performance of the state corporations in Kenya. The research study involved a descriptive research design of cross sectional type where a samples organizations were selected across the ten sectors of the economy in Kenya.

### **3.3 Population of the Study**

The study examined state corporations in Kenya. There are total of 225 state corporations spread across the ten sectors of the economy according to the sector reports downloaded from the National Treasury Website on 13<sup>th</sup> June 2014. See appendix 3 for a listing of the nine sectors of the economy.



### 3.4 Sample Design

A total of 32 state corporations were selected for the study. This included all the 10 parastatals in the energy sector. The 10 parastatals were selected from the energy sector since it has been the most stable of all the state corporations over the years. 22 state corporations were randomly selected from the 9 sectors of the economy. The sample selected was more than 10% of the entire population and hence significant for the study.

Below is a sampled of the parastatals selected for the study.

**Figure 3.1: Sample Selected for the Study**

Sector	Population	Sample Selected
Agriculture Rural and Urban Development	36	National Housing Corporation Kenya Meat Commission (KMC) Kenya Sugar Board Agricultural Development Corporation Kenya Agricultural Research Institute
Social Protection, Culture and Recreation	12	National Social Security Fund (NSSF) Kenya National Library Service (KNLS)
Public Administration and International Relations	29	Vision 2030 Delivery Secretariat Kenya School of Government Public Procurement Oversight Authority Kenya Revenue Authority
Health	8	Kenyatta National Hospital
Governance, Justice, Law and Order	9	Kenya School of Law (KSL)
General Economic and Commercial Affairs	24	Kenya Tourism Board (KTB) Bomas of Kenya (BoK) East African Portland Cement Company(EAPCC)
Environmental Protection, Water and Natural Resources	25	Kenya Forest Service (KFS) Kenya Water Institute (KEWI) National Environment Management Authority (NEMA)
Energy, Infrastructure and ICT	35	Kenya Electricity Generating Company (KENGEN) Kenya Power and Lighting Company (KPLC), National Oil Corporation (NOCK), Kenya Pipeline Company (KPC),

		Geothermal Development Company (GDC), Energy Regulatory Commission (ERC), Rural Electrification Authority (REA), Energy Tribunal, Kenya Petroleum Refineries Ltd (KPRL) and Kenya Electricity Transmission Company (KETRACO).
Education	44	Kenya National Examination Council (KNEC) Higher Education Loans Board (HELB) University of Nairobi (UoN) Jomo Kenyatta Foundation (JKF) Multimedia University of Kenya Cooperative University College of Kenya

### 3.4 Data Collection

The study used both of primary and secondary data. Primary data was collected using a structured questionnaire.

The questionnaire contained open and closed ended questions. Closed ended questions were be used to enable the collection of quantitative data for analysis using a Likert-scale, while the open ended questions were used to enable the researcher to collect qualitative data on the respondent’s view of on the procurement methods and operational efficiency of state corporations.

The Questionnaire was organized into three sections: Section A: General information about the entity, Section B: Procurement methods to fulfill the requirements of objective 1 and Section C, Operational Efficiency, addresses the requirements of Objective 2. Secondary data was obtained from journals, books, websites of the respective entities, and other academic publications.

The questionnaire was administered using a combination of both drop & pick and online methods. The dropped questionnaires were picked a week later to give the respondents ample time to fill the required information. Respondents were individuals reasonably assumed to be subject matter specialists mainly Procurement, Supply Chain Managers and Operational Managers of the selected state corporations.

The preference for a questionnaire was based on the fact that respondents are able to complete it without help, anonymously, and it is cheaper and quicker than other methods

while reaching out to larger sample Bryman, (2008); Cohen et al., (2007). The questionnaires were simplified for ease of collection of the required information. There was no complaint on the complexity of the questionnaire. All the 32 questions were obtained and analyzed and hence 100% response rate.

### **3.5 Data Analysis**

Before processing the responses, the completed questionnaires were sorted, checked and edited for completeness and consistency. Quantitative data collected was analyzed by use of descriptive statistics to generate percentages, means, standard deviations and frequencies. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions. Tables and other graphical presentations as appropriate were be used to present the data collected for ease of understanding and analysis. Data was also analyzed using Statistical Package for Social Scientists (SPSS). A regression was done and the results obtained interpreted for ease of understanding.

# **CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION**

## **4.1 Introduction**

This chapter outlines the data analysis, findings and interpretations of the results. Data was collected from state corporations in Kenya and was analysed to meet the objectives of this study. Data collected from the state corporations was analysed to identify procurement methods used by state corporations in Kenya and also ascertain if there is a relationship between the procurement methods used and the operational performance of state corporations in Kenya.

## **4.2 Response Rate**

The study targeted 32 state corporations spread across the 10 sectors of the economy. All the state corporations in the Energy sector were selected for the study. All the responses from the sampled 32 entities were obtained and analysed and the results obtained presented in graphs and tables. Mean and standard deviation was also used to analyse the common procurement methods while a regression equation was done to analyse the relationship between procurement methods and operational efficiency.

## **4.3 Procurement methods**

Specific questions were asked to determine the commonly used procurement methods. The respondents also indicated to what extent each of the procurement methods used in their respective organizations. Each of the response was assigned values as indicated below:

1=Very small extent, 2= Small Extent, 3= Average, 4= Great Extent, 5= Very Great Extent.

The table 4.3.1 below presents the analysis of the responses obtained:

**Table 4.3.1: Analysis of the Procurement**

<b>Method</b>	<b>N</b>	<b>Maximum</b>	<b>Mean</b>		<b>Std. Deviation</b>	<b>Skewness</b>	
<b>Measure</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>
Tendering	92	5	4.5761	0.0518	0.49688	-0.313	0.251
Request for Quotation	92	5	4.1739	0.07667	0.73543	-0.626	0.251
Low value procurement	92	5	3.2174	0.09506	0.91178	-0.271	0.251
Request for Proposal	92	5	3.0652	0.13894	1.33264	0.106	0.251
Negotiated procurement	92	5	2.6957	0.10453	1.00262	0.313	0.251
Specialized task	89	5	2.5281	0.11082	1.04544	0.504	0.255
Direct procurement	88	5	2.4659	0.12304	1.15419	0.246	0.257
Community Participation	85	5	1.7059	0.10428	0.96144	1.697	0.261
Force Account	84	4	1.5238	0.0803	0.73593	1.588	0.263
Traditional methods	65	3	1.3231	0.06971	0.56202	1.563	0.297

Source: Author, 2014.

Tendering and request for quotation recorded the highest means, 4.6 for Tendering and 4.1 for Request for Quotation and hence the two methods were used by the corporations to a large extent. This is in agreement with Walter (2003) who concluded that request for quotation is a very common method in public procurement. However this contradicts Helena (2010) who concluded that direct procurement is a very common method in public procurement. Low Value Procurement and Request for Proposals were used on average by the entities, 3.2 for Low Value Procurement and 3.0 for Request for Proposal. Negotiated procurement methods, Direct Procurement and specialized task were used to a small extent on average 2.7, 2.5 and 2.5 respectively. Community Participation, Force Account and Traditional methods were used to a very small extent, with some entities indicating that they were not aware of such methods.

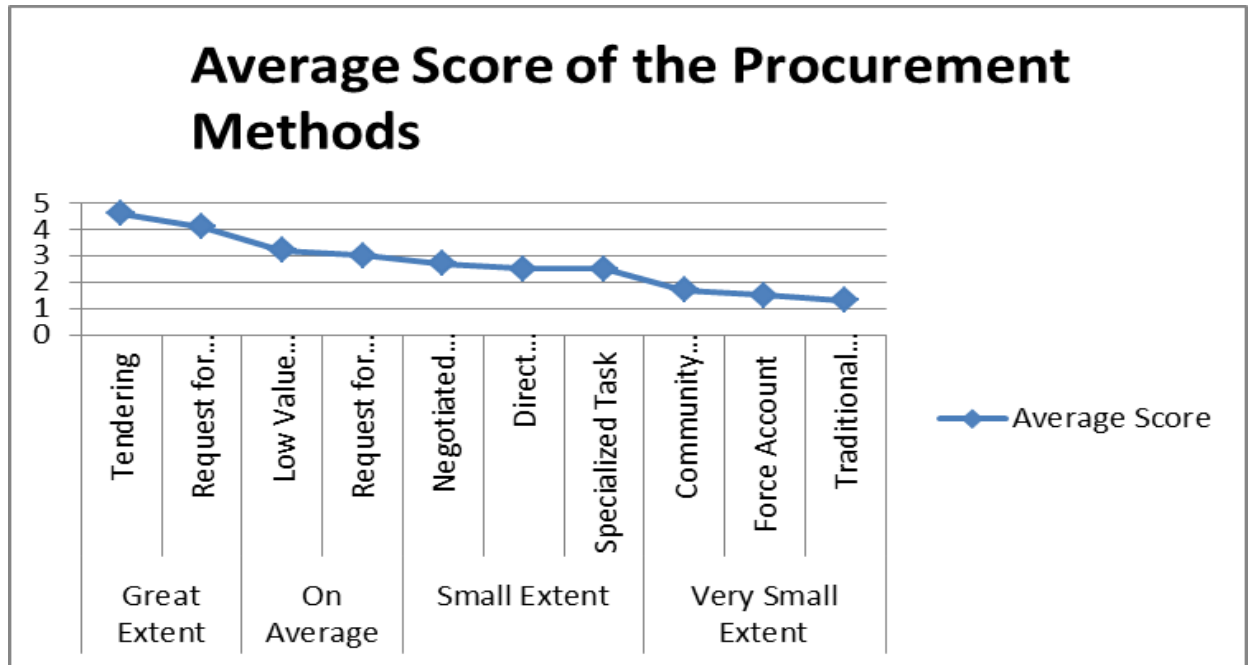
The table overleaf summarizes the results obtained from the calculation of the means:

**Table 4.3.2: Extent of usage of the Procurement Methods.**

Variable	Procurement Method	Average Score
Great Extent	Tendering	4.6
	Request for Quotation	4.1
On Average	Low Value Procurement	3.2
	Request for Proposal	3
Small Extent	Negotiated Procurement	2.7
	Direct Procurement	2.5
	Specialized Task	2.5
Very Small Extent	Community Participation	1.7
	Force Account	1.5
	Traditional Methods	1.3

Source: Author, 2014.

**Table 4.3.3: Average Score of the Procurement Methods**

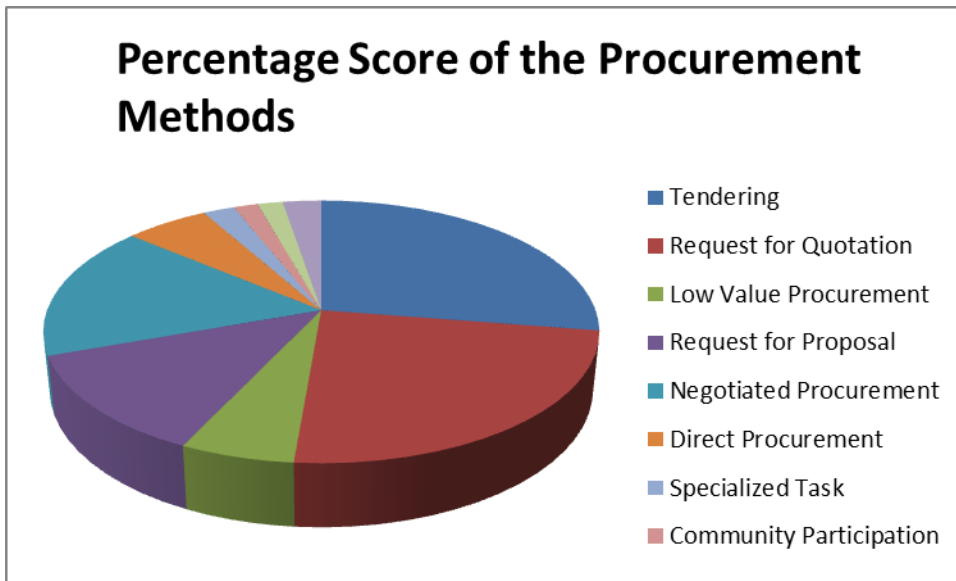


**Table 4.3.3: Percentage Usage of Procurement Methods**

Procurement Method	Percentage Score
Tendering	57.60%
Request for Quotation	50%
Low Value Procurement	12%
Request for Proposal	26.10%
Negotiated Procurement	34.80%
Direct Procurement	12%
Specialized Task	4.50%
Community Participation	3.50%
Force Account	3.60%
Traditional Methods	5.50%

**Source: Author, 2014**

**Table 4.3.4 Percentage Score of the Procurement Methods:**



From the analysis above, the commonly used procurement methods include: tendering, request for quotation and low value procurement. These methods are categorized as price-based procurement methods. Other methods used by the entities albeit to a smaller extent include: negotiated procurement, direct procurement and specialized tasks

On the other hand the least commonly used procurement methods include: community participation, force account and traditional methods, these are commonly referred to as subjective procurement methods.

## 4.4 Relationship between Procurement Methods and Operational Efficiency

The second objective of this study was to establish the relationship between procurement methods and operational efficiency of state corporations in Kenya. The methods were analysed for goods, works and services. The results regression results are presented below:

### 4.4.1 Goods

**Table 4.4.1 Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.655a	0.429	-0.286	0.2601

Adjusted R squared= 53%

Source: Author, 2014.



**Table 4.4.2. Regression Results:**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.355	1.034		0.344	0.74
	Low value procurement	0.017	0.082	0.075	0.212	0.837
	Negotiated procurement	0.014	0.122	0.063	0.112	0.914
	Direct procurement	0.134	0.11	0.674	1.21	0.261
	Request for Quotation	-0.002	0.124	-0.009	-0.02	0.985
	Request for Proposal	0.038	0.064	0.232	0.595	0.568
	Community Participation	-0.067	0.12	-0.297	-0.556	0.593
	Force Account	0.044	0.329	0.111	0.133	0.898
	Traditional methods	-0.083	0.318	-0.204	-0.262	0.8
	Specialized task	-0.103	0.092	-0.457	-1.122	0.294
	Tendering	-0.089	0.187	-0.199	-0.477	0.646

Source: Author, 2014.

**Regression Equation:**

$$Y = 0.355 + 0.017LP + 0.014NP + 0.134DP - 0.02RQ + 0.038RP - 0.067CP + 0.044FA - 0.038TM - 0.103ST - 0.089TE.$$

Where;

LP- Low value procurement; NP-Negotiated Procurement; DP-Direct Procurement; RQ- Request for Quotation; RP-Request for Proposal; CP-Community Participation; FA- Forced Account; ST- Specialized Task and TE- Tendering method.

#### 4.4.2 Works

**Table 4.4.5 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842a	.708	.344	.55410

Adjusted R squared= 81%

**Table 4.4.6. Regression Results**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.281	2.203		1.036	.331
Low value procurement	.125	.174	.183	.720	.492
Negotiated procurement	-.417	.259	-.645	-1.609	.146
Direct procurement	.404	.235	.683	1.715	.125
Request for Quotation	-.032	.264	-.038	-.121	.907
Request for Proposal	-.147	.137	-.300	-1.079	.312
Community Participation	.110	.256	.165	.431	.678
Force Account	.453	.700	.386	.647	.536
Traditional methods	-.699	.678	-.575	-1.032	.332
Specialized task	-.088	.196	-.131	-.449	.666
Tendering	-.208	.398	-.156	-.523	.615

Source: Author, 2014.

#### Regression Equation

$$Y=2.281+0.125LP-0.417N+0.404DP-0.032RQ-0.147RP+0.11CP+0.453FA-0.699TM-0.088ST-0.089TE.$$

Where;

LP- Low value procurement; NP-Negotiated Procurement; DP-Direct Procurement; RQ- Request for Quotation; RP-Request for Proposal; CP-Community Participation; FA- Forced Account; ST- Specialized Task and TE- Tendering method.

#### 4.4.3 Services

**Table 4.4.7 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877a	.769	.481	.54839

Adjusted R squared= 87%

Source: Author, 2014.

**Table 4.4.8: Regression Results**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.907	2.180		-.416	.000
Low value procurement	.289	.172	.380	1.681	.003
Negotiated procurement	-.156	.257	-.216	-.607	.031
Direct procurement	.676	.233	1.028	2.903	.010
Request for Quotation	-.141	.261	-.150	-.539	.001
Request for Proposal	-.191	.135	-.350	-1.414	.000
Community Participation	.060	.253	.080	.236	.112
Force Account	-.885	.693	-.677	-1.277	.004
Traditional methods	.915	.671	.676	1.365	.209
Specialized task	-.285	.194	-.382	-1.473	.179
Tendering	.281	.394	.189	.713	.119

Source: Author, 2014.

**Regression Equation:**

$$Y = -0.907 + 0.289LP - 0.156 + 0.676DP - 0.141RQ - 0.191RP + 0.60CP - 0.885FA + 0.915TM - 0.285ST - 0.281TE.$$

There is a relationship between the procurement method used and the operational efficiency of the state corporations with more impact being realised in the procurement of services followed by works and lastly by goods as illustrated in the results above. This agrees with Odhiambo and Kamau who concluded that quotation are used mainly in the procurement of works while proposals are used for procuring services.

# **CHAPTER 5 : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

## **5.1 Introduction**

This chapter presents the summary of the findings, conclusions based on the findings, the recommendations based on the findings and suggestions for further research. This study had to main objectives: To determine the procurement methods used by state corporations in Kenya and to establish the relationship between procurement methods and operational performance of state corporations in Kenya.

## **5.2 Summary of the Findings**

The study found that tendering and request for quotations are the procurement methods used by state corporations in Kenya to a large extent. Other procurement methods used by state corporations to small extent include: negotiated procurement, direct procurement and specialized task. The study also obtained that there is very limited use community participation, force account and traditional methods. The study also obtained that the procurement methods used by state corporations are largely price-based while best value procurement methods such as negotiated procurement are used to a small extent. Subjective procurement methods such as request for quotation and request for proposal are also used to a large extent by state corporations in Kenya. There was limited knowledge of force account, community participation and specialized task procurement methods amongst state corporations in Kenya. All the entities visited were well conversant with the price-based procurement methods.

The study using order lead time as the measure of operational performance found that choice of methods affected the order time for services to a large extent, works to an average extent and goods to a small extent. Given that order lead time is the most important measure of operational efficiency, Mark (2006), the author concluded that that the choice of the procurement method affects the operational performance of state corporations.

### **5.3 Conclusion**

The study established that the procurement methods used by state corporations to a large extent are price based and hence may not necessarily guarantee the best value for money. Best value procurement methods such as negotiated procurement are used but to a small extent. Subjective and Qualitative procurement methods such as Specialized task, community participation and Force account are least used by the state corporations in Kenya most were unknown by the state corporations.

There is a relationship between the procurement methods operational performance of state corporations. There is a strong relationship between the procurement method for services, followed by works and goods had the least relationship. The procurement method therefore chosen will impact on the operational performance of the state corporation. The procurement selected should therefore take into consideration the type of good, service of works to be procured.

### **5.4 Recommendation**

State corporations in Kenya need to explore the usage of best value procurement methods other than relying heavily on price-based procurement methods. Policy makers will need to consider a review of the law governing procurement in state corporations and put more emphasis on the best value procurement methods.

There is need to build the capacity of public procurement officers in state corporations on the various procurement methods for different categories of goods, services and works.

In order to enhance operational performance in state corporations, procurement methods should be keenly selected when procuring goods, services and works. The public procurement officers should study and explore the best methods for each category.

## **5.5 Limitations of the Study**

The study had the following limitations:

The findings of the study may not be generalized to other organizations since they may be working under different legislative environments.

Equally, there has been many reforms taking place particularly in the public procurement in Kenya and hence there are likely to be changes are likely to be encountered. The introduction of the two different levels of Government has also necessitated changes in the legislative and operating environment for the various entities. At the time of conducting this study, re-organizations of the state enterprises was also expected in Kenya.

## **5.5 Suggestions for Further Studies**

There is need for a similar study to be conducted to determine the most procurement methods used by the National and County Governments in Kenya. A similar study should be extended to entities in the private sector. This will enable generalization of the findings of this study.

# APPENDICES

## Appendix 1: References

Abdifatah, H. M. (2012) Supply chain management practices and their impact on performance among humanitarian organizations in Kenya. An MBA Research Project Submitted to the University of Nairobi.

Adekunle (2009). Development and Application of the Specialist Task Organization Procurement Approach

Antonio (2001) Public procurement methods to enhance private investments in infrastructure.

Ashworth, A. and Hogg, K. (2007), *Willis's Practice and Procedure for Quantity Surveyor*, Blackwell Publishing Ltd, Oxford, UK.

Afonso, A., Schuknecht, L., & Tanzi, V. (2005). *Public sector efficiency: Peter Baily and David Farmer, Purchasing Principle and Techniques*

Beard (2001), *Design-build: Planning through development*, McGraw-Hill, New York

Batunde and et al (2010). *An Appraisal of Project Procurement Methods in the Nigerian Construction Industry*.

Croom, S. and Johnson, R. (2003), "E-service: enhancing internal customer service through e-procurement", *International Journal of Service Industry Management*, Vol. 14 No. 5, pp. 539-55.

Hassan (2012). *Procurement Practices in Kenya's Public Corporations*; Unpublished MBA Project, University of Nairobi.

Helena Lindskog and et al (2010). *Corruption in Public Procurement and Private Sector Purchasing*, *Journal of Organizational Transformation and Social Change* Volume 7 Number 2.



Kagendo, (2012). Effects of Public Procurement and Disposal Act on Procurement in Parastals in Kenya; Unpublished MBA Project, University of Nairobi.

Kanyanya (2013). Lean manufacturing Practices and Performance of Organisations listed at the Nairobi Securities Exchange, MBA Project School of Business, University of Nairobi.

Kangongo (2013) International Journal of Management Science Vol. 1, No. 3, 2013, 90-99. Factors Affecting Ethical Standards in Public Procurement in Kenya.

Kirkendall, N. (2010) Organizational Performance Measurement In The Energy Information Administration. Energy Administration Department.

Jenny (2012), National Renewable Energy Laboratory. Innovations in Voluntary Renewable Energy Procurement: Methods for Expanding Access and Lowering Cost for Communities, Governments, and Businesses.

Lisburn (2007) Improving the validity of public procurement research J. Gordon Murray IDeA, Lisburn, UK, Website: <http://www.emeraldinsight.com/journals.htm?issn=0951-3558>

Magutu P.O. (2013). Supply Chain Strategies, Technology and Performance of Large Scale Manufacturing Firms in Kenya.

Marwa (2006). Comparing Procurement Methods for Design-Build Projects

Mark (2006). An Empirical Study of Operational Performance Parity Following Enterprise System Deployment.

Mechling, J. (2001), “Defining and measuring success in Canadian public sector electronic service delivery”, issue paper prepared for discussion and debate at Lac Carling.

Mauti (2012). Eprocurement Adoption Among Large Scale Manufacturers in Nairobi, Kenya.

Mbuba (2010). Report on the 4th East African Public Procurement Forum. Theme: Improving the Efficiency of Public Procurement in East African Community for Economic

Mukasa, (2010). The challenges of implementation of the public procurement and disposal Act; Unpublished MBA project, University of Nairobi.

M.L. Emiliani (2000), Business-to-business online auctions: key issues for purchasing process improvement, Supply Chain Management: An International Journal Volume 5 . Number 4. 2000. pp. 176±186 # MCB University Press . ISSN 1359-8546 <http://www.emerald-library.com>

Magutu (2009). The Effectiveness of Performance Appraisal System in Private Universities in Kenya, an Assessment of Kabarak University Performance Appraisal System.

Ngatia (2013). Supply Chain Management Practices and Performance of Kenya Tea Development Authority Managed Factories. MBA Project School of Business, University of Nairobi.

Nguthuri and et.al. (2013). An Evaluation of the Performance Contracting on Organisation Performance: A Case of Kenyatta University, Kenya. European Journal of Business and Management, ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.21, 2013.

Peter Baily , David Farmer, Barry Crocker, David Jessop and David Jones) (2008). Procurement Principles and Management, 10th Edition, Prentice Hall, pg 6 and pg 86.

National Treasury (2014) [http://www.treasury.go.ke/index.php/resource-center/cat\\_view/102-sector-reports/142-sector-reports-2014](http://www.treasury.go.ke/index.php/resource-center/cat_view/102-sector-reports/142-sector-reports-2014) downloaded on 13th June 2014.

Sollish, F., & Semanik, J.(2012). The procurement and supply mangers' desk reference (2nd ed.). USA, New Jersey: Wiley & Sons.

P. A. BOWEN (1999). Client briefing processes and procurement methodselection: a South African study SAI (2001). An analytical hierarchy process based procurement selection method

Public Procurement Oversight Authority (2005). General Procurement and Disposal Manual, March 2009. [http://www.ppoa.go.ke/downloads/Manuals/general\\_procurement\\_manual.pdf](http://www.ppoa.go.ke/downloads/Manuals/general_procurement_manual.pdf) downloaded on 6th April 2014.

Public Procurement Oversight Authority (2007). Assessment of the Procurement System in Kenya, Public Procurement Oversight Authority.

Saunders, M. (2009). Research Methods for Business Students, New Delhi, Prentice Hall.

The Office of Human Research Protection (OHRP) (2014). "Basic Research Concepts" (retrieved on 12th July 2014) [http://ori.hhs.gov/education/products/sdsu/res\\_des1.htm](http://ori.hhs.gov/education/products/sdsu/res_des1.htm)

Tingting (2011). Adopting Innovative Procurement Techniques. Obstacles and Drivers for Adopting Public Private Partnerships in New Zealand.

United Nations Commission on International Trade (2014) Model Law on Public Procurement United Nations New York, 2014. Source- <http://www.procurementclassroom.com/procurement-methods/>, 06 April 2014 at 21:00hrs.

World Bank (2007) Public Procurement: Lessons from Kenya, Tanzania and Uganda: The Integration of Developing Countries into the World Trading System, World Bank. retrieved on 06 April 2014 at 21:04hrs.

## Appendix 2: Research Questionnaire

### Introduction

This questionnaire is designed to collect data on procurement methods and operational efficiency of state corporations in Kenya. The information collected will be treated with the highest degree of confidentiality. I will appreciate your assistance in helping me gather information to present a representative finding on the Procurement methods and operational efficiency of state corporations. I will be happy to share with you the results of this study if you are interested.

Target Respondent: Procurement Managers, Supply Chain Managers and Operational Managers.

### Section A: General Information

Name of Your Organization:

Position:

Industry/ Sector:

### Section B: Objective 1: Procurement Methods

1. What are the most commonly used procurement methods in your organization?
  
2. Indicate to what extent your organization has used any of the following methods in the acquisition of goods, services and works. Use the following scales: 1=Very Small Extent; 2= Small Extent; 3= Average; 4= Great Extent; 5= Very Great Extent.

	1	2	3	4	5
<b>Price-Based Procurement Methods</b>					
i. Low Value Procurement					
<b>Best Value Procurement Methods</b>					
ii. Negotiated Procurement					
<b>Qualitative and Subjective Procurement Methods</b>					
iii. Direct Procurement					
iv. Request for Quotations					
v. Request for Proposals					
vi. Community Participation					
vii. Force Account					
viii. Traditional and Non-Conventional Procurement Methods					

ix. Specialized Task Organizational Procurement Approach					
x. Tendering					

**Section C: Operational Efficiency**

3. Indicate on average how long it takes to procure in your organization

	Less than 30 Days	30 to 60 Days	Over 60 Days
i) Goods			
ii) Works			
iii) Services			

4. Indicate to what extent the procurement methods, in your opinion have contributed to achieving the following in your organization. Use the following scale: 1= Very Small Extent; 2 = Small Extent; 3 = Average; 4 = Great Extent; 5 = Very Great Extent

	1	2	3	4	5
i. Improved service delivery to users					
ii. Reduction in complaints from users					
iii. Improved quality for goods, works and services					
iv. Matching the demand and supply for goods					
v. Reduction in average inventory held					

### Appendix 3: Population

<b>Sector</b>	<b>State Corporations</b>
i) Agriculture Rural and Urban Development	36
ii) Social Protection, Culture and Recreation	12
iii) Public Administration and International Relations	29
iv) Health	8
v) Governance, Justice, Law and Order	9
vi) General Economic and Commercial Affairs	24
vii) Environmental Protection, Water and Natural Resources	25
viii) Energy, Infrastructure and ICT	35
ix) Education	44
Total Number of state corporations	225

#### Appendix 4: Sample Selected

Sector	No. of State corporations	Sample Selected
i) Agriculture Rural and Urban Development	36	National Housing Corporation Kenya Meat Commission (KMC) Kenya Sugar Board Agricultural Development Corporation Kenya Agricultural Research Institute
ii) Social Protection, Culture and Recreation	12	National Social Security Fund (NSSF) Kenya National Library Service (KNLS)
iii) Public Administration and International Relations	29	Vision 2030 Delivery Secretariat Kenya School of Government Public Procurement Oversight Authority Kenya Revenue Authority
iv) Health	8	Kenyatta National Hospital
v) Governance, Justice, Law and Order	9	Kenya School of Law (KSL)
vi) General Economic and Commercial Affairs	24	Kenya Tourism Board (KTB) Bomas of Kenya (BoK) East African Portland Cement Company(EAPCC)
vii) Environmental Protection, Water and Natural Resources	25	Kenya Forest Service (KFS) Kenya Water Institute (KEWI) National Environment Management Authority (NEMA)
viii) Energy, Infrastructure and ICT	35	Kenya Electricity Generating Company (KENGEN)  Kenya Power and Lighting Company (KPLC),  National Oil Corporation (NOCK),  Kenya Pipeline Company (KPC),

		<p>Geothermal Development Company (GDC),  Energy Regulatory Commission (ERC),  Rural Electrification Authority (REA),  Energy Tribunal,  Kenya Petroleum Refineries Ltd (KPRL) and  Kenya Electricity Transmission Company (KETRACO).</p>
ix) Education	44	<p>Kenya National Examination Council (KNEC)  Higher Education Loans Board (HELB)  University of Nairobi (UoN)  Jomo Kenyatta Foundation (JKF)  Multimedia University of Kenya  Cooperative University College of Kenya</p>