

**SUPPLIER EVALUATION CRITERIA AND PROCURMENT PERFORMANCE IN  
PARASTATALS IN KENYA**

**BY**

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Nairobi.**

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## DECLARATION

This research project is my original work and has not been presented for any academic award in any other University.

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## **DEDICATION**

I dedicate this project to my wife Grace Muriungi, my son Paul Kibet Kemboi and my daughters Silva Chemjor and Rachel Kendi Chemjor, your love made this dream a reality and to my loving parents who had to sacrifice much in life for my education.

## ABSTRACT

Selection and maintaining competent suppliers is very essential in procurement. However, many factors affect a firm's ability to choose the right supplier. However, less has been done to investigate the supplier evaluation criteria and the influence to the procurement performance in the Kenyan context. Therefore this study was undertaken with the main objective to assess the supplier selection and evaluation practices in Parastatals in Kenya. The study was guided by three specific objectives; to establish the criteria used for supplier evaluation in Parastatals in Kenya; to find out the challenges of implementing Supplier Evaluation in Parastatals in Kenya and to determine the relationship between Supplier Evaluation Criteria and procurement Performance in Parastatals in Kenya. It employed a descriptive research design. The target population for the study included all the 187 parastatals under the state corporations' act of Kenya as at September 2015. Out of these, a sample of 53 was selected to give response to the study. However, 3 of these did not respond to the study giving a response rate of 94%. Questionnaires were used to collect data which was analysis through SPSS software version 22. Findings revealed that Parastatals in Kenya base their selection on following criteria; quality of the supplier services during, financial position of the supplier, flexibility of the supplier, supplier efficiency in service delivery, supplier charges, constitution and the PPOA guidelines, information sharing between the organization and supplier, supplier technical capability, supplier profile, ability of the supplier to share confidential information, experience of the supplier in offering certain services/products as well as compliance with procurement procedures. However, the supplier evaluation in these organizations is faced by several challenges including corruption, incompetent procurement officers, inefficiencies in procurement processes, lack of incentives, pressure of implementing PPOA and PPDA guidelines, cost of implementing procurement systems as well as maintaining procurement system greatly affects supplier selection process. The study therefore recommended that the management and the supply chain management for the Parastatals in Kenya need to effectively evaluate the most effective evaluation criteria that would facilitate its procurement performance. There is need also to ensure that competent personnel are in place to manage supply chain processes in the organizations.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iii</b>
<b>DEDICATION.....</b>	<b>iv</b>
<b>ABSTRACT.....</b>	<b>v</b>
<b>LIST OF TABLES.....</b>	<b>viii</b>
<b>LIST OF FIGURES.....</b>	<b>ix</b>
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Background.....	1
1.1.1 Supplier Evaluation.....	2
1.1.2 Supplier Evaluation Criteria.....	3
1.1.3 Procurement Performance.....	4
1.1.4 Supplier Evaluation Criteria and Procurement Performance.....	5
1.1.5. Parastatals in Kenya.....	6
1.2 Research Problem.....	7
1.3 Objectives of the Study.....	9
1.4 Importance of the Study.....	10
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>11</b>
2.1 Introduction.....	11
2.2 Theoretical Review.....	11
2.2.1 The Goal-Setting Theory.....	11
2.2.2 Expectancy Theory.....	12
2.3 Supplier Evaluation Criteria.....	13
2.3.1 Financial Stability.....	14
2.3.2 Quality.....	15
2.3.3 Production Facilities.....	15
2.3.4 Supplier’s Organizational Culture.....	16
2.2.5 Cost Factors.....	16
2.4 Challenges of Supplier Evaluation Criteria.....	17
2.5 Supplier Evaluation Criteria and Procurement Performance.....	18
2.6 Empirical Review.....	21
2.7 Conceptual Framework.....	24

<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>26</b>
3.1 Introduction.....	26
3.2 Research Design.....	26
3.3 Target Population.....	26
3.4 Sampling .....	26
3.5 Data Collection .....	27
3.6 Data Analysis .....	28
<b>CHAPTER FOUR: RESULTS AND DISCUSSION .....</b>	<b>29</b>
4.1 Introduction.....	29
4.2 Respondents’ Background Characteristics .....	29
4.2.1 Gender of the Respondents .....	29
4.2.2 Age of the Respondents .....	30
4.2.3 Respondents’ Position.....	31
4.2.4 Respondents’ Distribution by Number of Years Worked.....	31
4.3 Criteria used for Supplier Evaluation .....	32
4.4 Challenges of Supplier Evaluation.....	33
4.5 Effects of Supplier Evaluation Criteria on Procurement Performance .....	35
4.5.2 Inferential Results .....	39
4.5.2.1 Correlation Results.....	39
4.5.2.2 Regression Results .....	40
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>44</b>
5.1 Introduction.....	44
5.2 Summary .....	44
5.3 Conclusion .....	46
5.4 Recommendations.....	47
5.6 Limitations of the Study.....	47
5.6 Suggestion for Further Research.....	48
<b>References .....</b>	<b>49</b>
<b>Appendix II: Questionnaire .....</b>	<b>57</b>
<b>Appendix III: List of Parastatals Kenya (2015) .....</b>	<b>62</b>

## LIST OF TABLES

Table 4.1 Response Rate.....	29
Table 4.2.1 Respondents Distribution by Gender.....	30
Table 4.2.2 Respondents' Distribution by Age.....	30
Table 4.2.3 Respondents' Position.....	31
Table 4.2.4 Respondents' Number of Years Worked.....	31
Table 4.3 Criteria Used for Evaluation.....	32
Table 4.4 Challenges of Supplier Evaluation.....	34
Table 4.5 Procurement Performance.....	36
Table 4.5.1 Supplier Evaluation Criteria and Procurement Performance.....	37
Table 4.5.2.1 Correlation Results.....	39
Table 4.5.2.2 Regression Model Summary.....	40
Table 4.5.2.3 Analysis of Variance (ANOVA).....	41
Table 4.5.2.3 Regression Coefficients.....	42



## LIST OF FIGURES

Figure 2.1 Conceptual Framework .....	25
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## CHAPTER ONE: INTRODUCTION

### 1.1 Background

Supplier evaluation is a significant process for any organization because on average, products that are purchased account for between forty and sixty percent of sales of end products (Chartered Institute of Procurement and Supply, n.d). This directly influence the quality and cost of purchased products; a small gain in cost due to supplier selection has significant benefits for organizations. Supplier evaluation is one of the activities executed by procurement staff and one whose effective execution determines the success or failure in the procurement performance.

The role of the procurement function in organizations has received and continues to receive increasing attention as the years go by (Johnson, Leenders, & Flynn, 2011). Procurement enhances efficiency and competitiveness among other benefits but to realize these benefits, it is imperative to look at strategic factors that affect the performance of the procurement function. Selection and maintaining competent suppliers is very essential in procurement. However, many factors affect a firm's ability to choose the right supplier.

There is a need to identify the strategic supplier related factors and include them in the supplier selection criteria. Some of the factors firms consider include trust and commitment, adequate finance, quality, reliable delivery times, adequate logistic and technological capabilities (Krause, Handfield, & Tyler, 2007). Materials delivery, quality, cost, financial position, communication and technology are recognized as the commonly used criteria a fact confirmed from empirical results as well as in previous literature. However other criteria such as ISO certification, reliability, credibility, good references and product development were are also necessary. This shows that focus is shifting from solely relying on quantitative factors to include qualitative criteria (Araz & Ozkarahan, 2007). Supplier evaluation strategy is important because it can assist an organization in assuring the right competences among procurement staff and the right tools to support an efficient administration, for example e-procurement; Support the achievement of organizational objectives by linking them with the procurement goals (Chen, 2011).

The process of identifying the best suppliers and maintaining them is perhaps the single most important role of the procurement function in any forward looking organization .To carry out their task effectively, procurement managers must come up with scoring criteria to help them evaluate and identify the suppliers to do business with and maintain them in the approved vendors list (Wu, Shunk, Blackhurst, & Appalla, 2007). Parameters to be included in the scoring criteria or appraisal forms as the case may be should be carefully selected to ensure that they are value adding and will impact positively on the performance of the procurement function and the entire organization as a whole. As such, it is important that the procurement manager identifies and critically analyses the supplier related factors that affect the performance of the procurement function.

### **1.1.1 Supplier Evaluation**

The goal of every enterprise is to utilize limited resources in the most efficient manner so as to realize its objectives with minimal costs. This necessitates the evaluation of suppliers so as to ensure that an institution gets the best contracts in terms of quality, costs, flexibility and reliability. According to Gordon (2008), supplier evaluation refers to the practice of approving and evaluating potential suppliers using quantitative methods to make sure that the best class of suppliers are made available to supply products and services to an organization. Hald and Ellegaard (2011) define supplier evaluation as “*the process of quantifying the efficiency and effectiveness of supplier action.*” This means that supplier evaluation is a process of quantifying the abilities of the supplier and the buying institution conducts evaluation to stimulate the behaviour of the supplier. Possible changes in behaviour range from implementation of green practices, improving social responsibility, improving quality, improving efficiency to lower costs, among others.

The underlying motive of supplier evaluation is to identify suppliers with the potential to support the buying institution to realize its interests with regard to purchasing. Supplier evaluation is a continuous process for purchasing departments and is a pre-qualification step in the process of purchasing. Supplier evaluation entails appraising several aspects of the supplier, including financials, capacity, organizational processes and structure, quality assurance, and performance either using a questionnaire or a site visit (Monczka, Trent & Handfield, 2002).

However, many organizations feel that supplier evaluation does not have much influence on the buying decision since the buying decision is mostly determined by price and politics (Kavale & Mwikali, 2012). Thus, suppliers feel that high scores on the supplier evaluation sheet is more a question of playing games and showmanship than one of dedication to improvement. Effective supplier evaluation is a holistic process and starts with alignment of objectives, data capture and analysis, all the way to communication with suppliers, in a transparent manner.

### **1.1.2 Supplier Evaluation Criteria**

Supplier evaluation refers to the process by which organizations assess and appraise potential suppliers using quantitative methods, such as through the use of a questionnaire. This process is done to make sure that a best in class portfolio of suppliers is selected for the organization to use. Supplier selection is a stage during the process of procuring for products and services during which the organization(s) choose the preferred and most qualified supplier (s) from the group that has been evaluated and deemed to meet the requirements in the evaluation process, according to Gordon (2008).

According to Monczka, Trent and Handfield (1998), evaluation of suppliers is a process that leads companies to select their desired suppliers. This process has two main aims, which are to reduce all costs of purchasing and to increase the overall value of the purchasing. Regarding to the costs of evaluating the suppliers (such as time and travel budget), companies basically evaluate those suppliers that have a good chance of qualifying for purchasing from them. In this process, formally, companies send expert teams to the supplier site, and with evaluating different criteria and factors, they will do an in-depth evaluation.

For supplier evaluation to be an objective and transparent process, it needs to be conducted using set criteria so as to ensure standardization in the evaluation. The development of appropriate criteria that captures the interests of the buyer is one of the indicators of procurement performance (Nair, Jayaram & Das, 2015). Purchasing performance targets a number of aspects in the supplier evaluation criteria such as cost, quality, delivery, flexibility and innovation. Supplier selection criteria should include an evaluation of supplier capabilities (and ultimately supplier performance) on these and other attributes. There is

agreement that the choice of appropriate criteria in supplier evaluation and selection has a significant influence on procurement performance. Traditionally, supplier evaluation criteria has been pegged on only three factors namely cost/price, quality and delivery. Relatively recent developments in supplier selection advocate the use of multiple criteria models in supplier evaluation (Murigi, 2014). Some of the supplier evaluation criteria include financial ability, quality, production facilities, environmental issues, supplier's organizational culture, cost factors production capacity and employee capabilities among others (Lysons & Farrington, 2006).

### **1.1.3 Procurement Performance**

According to Walker and Rowlinson (2008), the measurement of procurement performance is the first step in being able to understand the weaknesses and strengths of a given system and put into place corrective actions. Developing an effective method for measuring the performance of procurement requires certain indicators to make evaluation possible. The indicators of procurement performance include efficiency in the procurement process measured in terms of the cost of transactions and time. Another indicator is transparency and openness of the procurement system with regards to fairness of participants. The workforce professionalism is also another indicator of procurement performance; a well trained and equipped workforce can enhance the performance of the process of procurement.

There should be a method for evaluating the performance of procurement especially within the public sector as they use taxpayer money for their operations. According to Musau (2015), the performance in procurement by State Corporations in Kenya is heavily influenced by the implementation of inventory optimization, especially where e-procurement systems are used. The evaluation of procurement performance takes into consideration of both the strategic and operational dimensions of the procurement function. From the operational dimension, procurement performance relates to the costs of purchasing, product and/ or service quality, delivery and flexibility in procurement (Nair, Jayaram & Das, 2015). On the other side, the strategic dimension of procurement performance considers innovation in the purchasing process. In both cases, the measures that underlie the dimensions are multiple and range from cost and quality of the inputs/outputs, cost of purchasing activities, percentage of Just-in-time suppliers, inventory turns, procurement cycle times and on-time deliveries

(Lysons & Farrington, 2006). Other indicators of procurement performance range from ability to respond quickly to changes in schedules and ability to access and utilize new technologies (Project Management Institute, 2004).

Poor procurement performance on its part contributes to rising inefficiency as well as costs and competitiveness of the procurement function. According to Barsemoi, Mwangagi and Asienyo (2014), poor procurement performance contributes to decrease in profitability in the private sector hence is a major hindrance to the realization of organizational growth as it leads to delays in delivery, low quality goods and services and increase in defects. In both private and public sectors, poor procurement performance results from inability to embrace e-procurement, use traditional procurement procedures and poor coordination of procurement activities between the requisitioning departments and the procurement department.

#### **1.1.4 Supplier Evaluation Criteria and Procurement Performance**

The ability to develop appropriate supplier evaluation criteria is a measure used in the determination of procurement performance. For instance, the use of the financial stability criteria is seen to be a good indicator of supplier performance. According to Murigi (2014), supplier appraisal has a direct correlation to the overall performance of the procurement process with 57.1% of the performance of the procurement process being directly determined by the supplier evaluation and appraisal criteria. Financially stable suppliers pose lower business risks as they are likely to remain independent than their financially weak counterparts (Kipkorir, 2013). Other criteria such as the geographical proximity of the supplier are also important since increased geographical distance can sometimes bring other challenges associated with transportation logistics and foreign exchange fluctuations thereby posing setback to flexibility (Kavale & Mwikali, 2012).

The realization of these objectives in earnest leads to procurement performance. The use of other evaluation criteria such as the quality criterion is a helpful tool in supplier development. This is because supplier evaluation motivates suppliers to continuously improve their operations by raising efficiency and being more innovative (Hald & Ellegaard, 2011). The use of realistic evaluation criteria helps both parties to realize causes of weak performance on the part of suppliers and this enables them to take remedial measures. The result is that

suppliers are able to improve the metrics and this translates to better metrics to the buying institution, a sign of good procurement performance. A study by Chemoiywo (2014) on supply chain performance and public procurement procedures of State corporations found that State Corporations had a poor adoption of public procurement principles and this resulted in poor performance of the procurement process characterized by high costs and poor delivery.

### **1.1.5. Parastatals in Kenya**

A Parastatal is a legal entity that is created by the government in order to partake in commercial activities on the government's behalf. They can be either wholly or partially owned by a government and is typically earmarked to participate in commercial activities. Parastatals are established under an Act of Parliament. There are 187 Parastatals in Kenya with the government owning a minority stake in many other institutions. Some of the corporations which were Parastatals but have since been privatized include Safaricom, National Bank, Kenya Commercial Bank, Mumias Sugar Company, Uchumi Supermarkets, Kenya Airways, among others. Parastatals represent mixed fortunes with some being successful, others are perennial failures, while others present missed opportunities. The Numerical Machining Complex represents another missed opportunity thanks to lack of a strategic vision. Kenya Meat Commission represents another lost opportunity for the transformation of Kenya's livestock industry. Parastatals spend huge budgets on procurement and up to 60 percent of public expenditure goes to public procurement (Kipkorir, 2013; Makabira & Waiganjo, 2014).

Through flawed public procurement processes, large sums of taxpayers' money have been lost in Kenya in the past; the main reasons being low personal ethical standards by concerned parties and organizational culture and the environment (Kangogo & Kiptoo, 2013). While progress has been made in procurement laws and oversight in Kenya, there are still problems and challenges; the exemption of the Defence and national Security departments of Kenya from the rules has created a loophole that the Kenyan media has exposed, for instance the Anglo-Leasing Scandal and the CID Forensics scandal (Campbell, 2006), (Herbling, 2015). Further, there are loopholes in emergency procurements that leave room for exploitation and misuse; the recent attempt by the Kenyan Government to procure laptops for primary school

children hit a snag after other bidders went to court to block the award which was considered 'non-competitive, according to Kiawa (2012).

## **1.2 Research Problem**

The World over, organizations, both public and private are increasingly relying on suppliers of products and services to fulfil their obligations and meet the needs of their customers. As such, organizations are increasingly becoming under pressure to ensure efficient and cost effective procurement and attract high performers supplier that perform well, they ensure that organisation get quality supply thus supplier evaluation must be done carefully. Several studies have been undertaken on supplier selection and evaluation. Among the studies, Završnik (1998) studied how important the selection and evaluation of suppliers is in the management of purchasing and established that purchasing management has a significant bearing on the profitability and performance of organizations and their overall competitiveness. According to Agaba and Shipman (2006), negative procurement practices are manifested in wrong computation of costs by evaluation teams, shoddy commodities and goods, poor performance of construction works, failure to complete performance of contracts on time or not at all. Bai and Sarkis (2009) conducted a study on supplier selection and sustainability and note that supplier selection and evaluation still remains a challenge for most organizations and improvements are necessary.

In a study that was done by Schiele (2007) established that extensive supplier audits significantly influence a firms' performance level. Effective procurement promises to cut operational costs all across the supply chain, but it also raises the expectations of buyers posing a challenge for buyer satisfaction and supply chain performance. Weber, Current, and Benton (1991) in their study showed that assessment of a supplier's willingness and ability to share information significantly affects performance. However, less has been done in developing countries as these studies were majorly done in the developed countries.

After Kenya's independence in 1963, the establishment of the parastatals was driven by a national desire to; accelerate economic social development; redress regional economic imbalances; increase Kenyan Citizen's participation in the economy; promote indigenous entrepreneurship as well to promote foreign investments through joint ventures. However, the



growth in the parastatal sector has not been accompanied by development of efficient systems to ensure that the sector plays its role in an efficient manner. There is clear evidence of prolonged inefficiency, financial mismanagement, waste and malpractices among these, lack of procurement ethics in many parastatals (Aseka, 2010). Government demands high procurement performance, efficiency and reduced cost in respect of supply and service cost to be reduced and one of the ways is supplier evaluation and this explains why it is paramount for the Parastatals to undertake vigorously supplier evaluation.

A number of studies have been done in the area of procurement in Kenyan context. Ondieki (2000) for instance in his study recommended that manufacturing firms should borrow a leaf from those that have successful proactive procurement functions in place. However, the study did not show the benefits firms stand to gain by adopting proactive procurement practices. Kakwezi and Sony (2010) illustrated that procurement planning is an ingredient to service delivery, but the study focused on service delivery ignoring other measures of procurement like financial gains from cost reduction. On the other hand Nantage (2011) asserts that strategic procurement management has a direct impact on the financial performance of financial Banks.

Hassan (2012) concluded that procurement planning and strategies have a direct positive impact on the performance of humanitarian organization in delivery of relief and emergency services. The study did not bring out the strategic procurement practices to use to realize these benefits. According to Mwikali and Kavale (2012), the factors affecting supplier selection in Kenya include technical capability, associated costs, organizational profile, quality assessment, risk factors, service levels and the profile of the suppliers. The research also established that in most organizations in Kenya include opacity in the process of selecting suppliers and that it does not involve technocrats from other departments that may be affected by the requisitioned goods or services. Mokogi, Mairura and Ombui (2015) in a research on the 'Effects of Procurement Practices on the Performance of Commercial State Owned Enterprises in Nairobi County' established that the performance of procurement practices of State Owned Enterprises were significantly affected by relationships between the buyer and supplier, organizational capacity, management practices for the procurement processes and procedures for supplier selection.

In modelling the factors affecting procurement performance at the Ministry of Energy, a study by Kiage (2013), established that procurement planning, resources allocation, staff competency and contract management are the key variables that influence procurement. Makabira and Waiganjo (2014) studied the role of procurement practices on the performance of the Kenya National Police Service in Makueni County. They postulate that procurement planning, procurement controls, procurement monitoring and staff training are the major factors affecting procurement practices at the Kenya National Police Service.

Chimwani, Iravo and Tirimba (2014) studied the factors affecting procurement performance at the State Law Office. They studied a number of variables namely record management systems, procurement procedures, and technology and staff qualifications and how they affect the performance of procurement. While much research has focussed on the problems facing the procurement processes in Parastatals and other public organizations in Kenya, not much research has been done to identify the specific supplier selection and evaluation processes and the performance of the procurement process for Parastatals. Further, as with global trends, public procurement in Kenya remains a major challenge plagued by issues of omission and commission; procurement officers regularly fail the ethical test; most public procurements are flawed and often lead to massive losses of public funds with poor products and services being offered.

However, despite there being numerous studies done, none of the studies was done to investigate the supplier evaluation criteria and the influence to the procurement performance in Kenya. Therefore this study was undertaken to fill this gap by assessing the supplier selection and evaluation practices in Parastatals in Kenya. To accomplish this, the study was guided by the following three research questions; what criteria do the parastatals in Kenya employ for supplier evaluation? what are the challenges of implementing Supplier Evaluation in Parastatals in Kenya? And what relationship does Supplier Evaluation Criteria have on procurement Performance in Parastatals in Kenya?

### **1.3 Objectives of the study**

The main objective of this study was to examine the supplier evaluation criteria and procurement performance.

The specific objectives were:

- i. To establish the criteria used for supplier evaluation in parastatals in Kenya.
- ii. To find out the challenges of implementing supplier evaluation in parastatals in Kenya
- iii. To determine the relationship between supplier evaluation Criteria and procurement performance in parastatals in Kenya.

#### **1.4 Importance of the Study**

The study will of importance to procurement personnel in the public sector as it will help them to develop benchmarks of best practices in the sector. While the Kenyan government has put in place reforms under the PPOA and PPDA, more needs to be done and this research will offer new viewpoints and suggest solutions for improving supplier selection, evaluation, and procurement performance for Kenyan Parastatals and these findings will be important for the Government in enhancing efficiency and transparency in Parastatals that have so often been plagued by problems or wastage, corruption, and poor value for money in their procurement processes. The study is important as it will provide the Kenya Institute of Supplies management (KISM), which is in the process of developing a regulatory body for procurement officers, relevant facts and suggestions upon which to base their standards and performance benchmarks.

This research is also of academic significance as it will bridge an existing research gap and add to the existing body of knowledge on public procurement in Kenya. The study will also awaken the need for procurement professional to understand that procurement performance need not be passed down to suppliers but rather viewed for what it is: failure by procurement to develop appropriate supplier evaluation criteria. The study will also build on the prevailing academic literature on supplier selection, supplier evaluation and procurement performance. It will also provide research grounds for future researchers to borrow from while also giving recommendations on the possible areas that may require further research. Further; it will be of immense value to leaders and boards that oversee Parastatals in Kenya on criteria they can implement to ensure enhanced supplier selection, evaluation, and procurement performance using metrics for evaluation that this research will suggest.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The study will aim at reviewing literature on the evolution of Kenya's public procurement process as well as the factors that contribute towards effectiveness and efficiency in the procurement process. Some of these range from professionalism and staff competence, use of IT in procurement so as to promote fairness and transparency, the effects of procurement procedures including the process of supplier selection and evaluation. Procurement performance entails the attainment of effectiveness and efficiency, as well as cost effectiveness throughout the procurement process.

### **2.2 Theoretical Review**

This study will be guided by the theories underlying to the concept of performance management. The relevant theories were the goal setting theory that relates to the evaluation process and the expectancy theory relating to the procurement expected outcomes (performance).

#### **2.2.1 The Goal-Setting Theory**

Goal-setting theory had been proposed by Edwin Locke in the year 1968. The theory began with the early work on levels of aspiration developed by Kurt Lewin and has since been primarily developed by Dr. Edwin Locke, who began goal setting research in the 1960's. The research revealed an inductive relationship between goal setting and improved organizational performance. A goal is the aim of an action or task that a person consciously desires to achieve or obtain (Locke & Latham, 2002). Goal setting involves the conscious process of establishing levels of performance in order to obtain desirable outcomes. This goal setting theory simply states that the source of motivation is the desire and intention to reach a goal (PSU, 2014). If individuals or teams find that their current performance is not achieving desired goals, they typically become motivated to increase effort or change their strategy (Locke & Latham, 2006).

This theory suggests that the individual goals established by an organization play an important role in motivating its superior performance. This is because the stakeholders keep

following their goals. If these goals are not achieved, they either improve their performance or modify the goals and make them more realistic. In case the performance improves it will result in achievement of the performance management system aims (Salaman et al, 2005).

This theory postulates that in an organization, the supplier selection and evaluation team's efforts to achieve procurement performance in the organization will be required to make realistic goals. According to the theory, the objectives of procurement should be realistic and therefore guide the selection process towards achievement of these objectives/goals. Specific and clear goals lead to greater output and better performance. Unambiguous, measurable and clear goals accompanied by a deadline for completion avoids misunderstanding (Shahin & Mahbod, 2007).

### **2.2.2 Expectancy Theory**

Expectancy theory is about the mental processes regarding choice, or choosing. It explains the processes that an individual undergoes to make choices. Expectancy theory had been proposed by Victor Vroom in 1964. This theory is based on the hypothesis that individuals adjust their behavior in the organization on the basis of anticipated satisfaction of valued goals set by them. The individuals modify their behavior in such a way which is most likely to lead them to attain these goals. This theory underlies the concept of performance management as it is believed that performance is influenced by the expectations concerning future events (Salaman et al, 2005).

Vroom's expectancy theory assumes that behavior results from conscious choices among alternatives whose purpose it is to maximize pleasure and to minimize pain. Vroom realized that an entity's performance is based on the factors such as staffs' personality, skills, knowledge, experience and abilities. He stated that effort, performance and motivation are linked in a person's motivation (Mathieu, Tannenbaum, & Salas, 1992).

Expectancy theory proposes that procurement effectiveness is dependent upon the perceived association between performance and outcomes and individuals modify their behavior based on their calculation of anticipated outcomes (Chen & Fang, 2008). This has a practical and positive benefit of improving effectiveness in the selection process because it can, and has, helped leaders create effective programs in the selection teams.

### **2.3 Supplier Evaluation Criteria**

Suppliers are considered the best tangible assets of any organizations that have varied strengths and weaknesses that require careful assessment before order placed (de Boer, 2001). The ability to analyse both the quantitative and qualitative criteria the organization is able to arrive at a robust decision. Supplier evaluation is often complicated by the fact that multiple criteria, such as price, quality, flexibility, delivery, and service, must be considered in the decision-making process (Hirakubo and Kublin, 1998).

Supplier evaluation is a management activity whose primary aim is acquiring information to analyze and to manage supplier relationships and supply situations (Li et al., 2006). The process entails the simultaneous consideration of a number of critical supplier performance features that include price, delivery lead-times, and quality. The importance of supplier evaluation is evident from its impact on firm performance and more specifically on final product attributes such as cost, design, manufacturability, quality, and so forth (Sarkis & Talluri, 2002).

After determining where to source, a supplier selection decision within the chosen area can be made. Supplier selection decisions must include strategic and operational factors as well as tangible and intangible factors in the analysis (Sarkis & Talluri, 2002). That's why decision maker can analyze the supplier selection decision in a systematic and scientific approach by means of utilizing the proposed model.

Competition necessitates selecting carefully suitable suppliers for collaboration. It is critical that supplier selection process be able to bring together all of the stakeholders into a common collaboration that generates buy-in and their judgments', comments and evaluation be captured through the process as well. Decision is made from the suppliers who have passed the qualification requirements and are eligible for contracts award (Ng'ang'a, 2014).

Organizations have different policies and criteria that they put in place during suppliers selection. Policies are generally adopted by the Board or senior governance body within an organization whereas procedures or protocols would be developed and adopted by senior executive officers. Organization policies can assist in both subjective and objective decision making process. According to Matook et al. (2009) the operational success of organizations

policies will often depend on the development of a network of reliable and trustworthy suppliers and consequently, making the right supplier selection decisions are important. According to Slack and Lewis (2002) if there is a gap of unsatisfactory performance it's assumed the relief organization will adapt their strategies thus dealing with operational decision areas in allocation of resources, level of cooperation and outsourcing in order to be strategic fit between the enablers and requirements of the beneficiaries'.

Due to the high costs involved in the evaluation processes Kamenya (2014) suggests that criteria should be used in the following situations: purchase of strategic high profit, high risk items, where potential suppliers do not hold accreditation, purchase of non-standard items, expenditure on capital items, global sourcing, outsourcing, placing of construction and similar contracts, among others. Suppliers may be evaluated in many ways: financial ability, quality, production facilities, environmental issues, supplier's organizational culture, cost factors production capacity and employee capabilities among others (Wu, Shunk, Blackhurst, & Appalla, 2007). These appraisal criteria are explained as follows:

### **2.3.1 Financial Stability**

Supplier's financial condition need to be evaluated at the earliest stages of supplier appraisal. Some purchasers view the processes as a pre-screening exercise that a supplier must pass before a detailed evaluation process can begin (Handfield et. al., 2008). According to the Chartered Institute of Purchasing and Supplies (2012) financial status and stability are measured by factors such as profitability, cash flows management, assets owned, debts owed among other factors.

The financial criterion is important since selection of a supplier with poor financial conditions presents a number of dangers to the purchaser. To start with, is the danger that the supplier will go out of business. Then suppliers with poor financial health will not have resources to invest in plant, equipment, or research necessary for long-term performance improvements. Thirdly, the supplier may become so financially dependent on purchaser. Lastly, financial weakness seems to be an indication of underlying problems (Handfield et al., 2008).

The financial stability will equally reflect on the ability of suppliers to meet the current contract with the purchaser and to ensure a secure future flow of supplies. The financial records may also indicate the risk of delivery or quality problems and more disruptions to supply and more complex legal issues if a supplier becomes insolvent. A supplier that is financially unstable poses three nightmares to the buyer. A buyer may need to insist on quality but the supplier is forced to cut on costs; a buyer may have a claim against the supplier but he may not have sufficient working capital; to meet it and a buyer may wish to insist on speed delivery but supplier cannot pay overtime (Lysons, 2008).

### **2.3.2 Quality**

The British Standards definition of quality is ‘the totality of features and characteristics of a product of a product or service that bear on its ability to satisfy given need’ (CIPS, 2012). A buyer needs to assess and ensure that a supplier has robust systems and procedures in place for monitoring and managing its outputs. The systems for the detection and correction of defects are called quality control while those for prevention of defects are known as quality assurance and a buyer needs to check whether the supplier has these in place (Lysons et al., 2008).

According to Handfield et al., (2008) an important part of evaluation processes touches on a supplier’s quality management systems and philosophy. According to Lysons et al., (2008) firms appraising quality of suppliers will find themselves looking at the following issues: procedures for inspection and testing of purchased materials, accreditation with national and international quality standards bodies such company standards, Association of Trade Standards, International standards organization (ISO) and British Standards Institution (BSI) (Lysons 2008). The success of the buying organization is highly dependent on how well the suppliers perform. It is also important that the supplier and the buyer have the same idea of what satisfactory quality is (Gallego, 2011).

### **2.3.3 Production Facilities**

According to Lysons et al., (2008) a buyer should also assess a supplier’s machinery with attention paid to the following points: the availability of full range of machinery required to produce a required product, mechanisms to overcome shortage of machinery, evidence of



good housekeeping, adoption of approaches such as computer aided designs, computer aided manufacture, satisfaction on safety provisions and modernity and well maintenance of machines.

A buyer should focus on suppliers who have listed the name and location of the production facility, whose facilities have complied with ISO 9001 standards, are socially compliant. The supplier should have production experience documentation and the age of the equipment should be assessed (CIPS, 2012)

### **2.3.4 Supplier's Organizational Culture**

Organizational culture is a reflection of common values, beliefs, assumptions and norms of behavior that develop in an organization over time. Culture is explicitly stated in organizational mission and value statements, but is also seen in the attitudes expressed by managers and staff in their behavior, in the look of the premises, the neatness of staff uniforms and all sorts of other expressions (CIPS, 2012). The buyer should therefore focus on the supplier's commitment to innovation, responsibility, ethics, quality consciousness, and communication since this will be crucial indicators supplier's commitment to working in relationships. Evaluation of this will indicate whether there will be compatibility of the values, beliefs and attitudes to quality of those of buyer and supplier.

Since management runs the business and makes decisions that affect the competitiveness of the supplier, a buyer should look at the management competitiveness of the supplier taking into account of the following managerial issues: management practice on long- range planning, management's commitment to TQM, the turnover of managers, professional experience and educational backgrounds of the key managers, availability of vision about future direction among other things (Handfield et al., 2009).

### **2.2.5 Cost Factors**

A buyer should equally look at a supplier's price and cost factors. Evaluating a supplier's cost structure needs a deep understanding of a supplier's total costs, including: direct labor costs, indirect labor costs, material costs, manufacturing costs and the general overhead costs. Understanding cost structure of the supplier will help a buyer determine how efficiently a

supplier can produce an item and at the same time provide means for identification of areas of cost improvement (Handfield et al., 2008).

## **2.4 Challenges of Supplier Evaluation Criteria**

Over the years, the public procurement system has experienced serious operational challenges; including numerous allegations of being riddled with malpractices and corruption. These perceptions informed the decision by the World Bank to fund the public procurement reform in 1997. Some of the outcomes of the reform process were the establishment of the Public Procurement Oversight Authority (PPOA) created under the Public Procurement and Disposal Act (PPDA) of 2005; which has been in operation since 1<sup>st</sup> July 2007 (Engelbert, Reit & Westen, 2012,). The main function of the PPOA is to improve transparency in public procurement, ensure fairness, enhance integrity and improve efficiency in the public procurement process.

According to Makabira and Waiganjo (2014), public institutions spend huge chunks of their budgets (up to 70 percent) in purchasing goods and services. In developing countries, the procurement function is essential in service delivery and accounts for a large component of total expenditure. For instance, Makabira and Waiganjo (2014) observe that public procurement accounts for 60 percent of public expenditure in Kenya. With the colossal amounts at stake, there is need for procurement performance so as to ensure that taxpayers get the value for their money. In attempts to reach this objective, procurement undertakes diverse measures ranging from supplier selection, supplier evaluation, setting of selection and evaluation criteria, staff training, among other measures with the intention of improving procurement performance.

Environmental challenges, such as global warming, have demanded greater concern by organizations regarding their environmental management (Lin et al., 2001). However, in order to improve their relations with the environment, these organizations must contribute towards a reduction in environmental impacts from their supply chains, stimulating improvements in their suppliers' environmental performance. The insertion of environmental criteria in the supplier selection process for a given firm will be proportional to the environmental demand of final consumers (Vachon & Klassen, 2006). Firms have recognized

the need to develop strategies that extend their traditional corporate governance processes beyond the firms' boundary to their supply chain partners (Kytte & Ruggie, 2005). The most visible indicator of this extension is the emergence of corporate social responsibility oriented purchasing strategies, such as laying down standards that suppliers must meet in order to win business (Keating et al., 2008).

A research by Kagendo (2010) on the Effects of Public Procurement and Disposal Act on Procurement in Parastatals in Kenya' found that while PPOA reforms have helped professionalize and streamline public procurement and disposal in Kenya, challenges still remain, including corruption and incompetence by procurement officers, ignorance of guidelines provided by the PPOA, inefficiencies in procurement processes, no incentives for the organizations and the pressure of implementing PPOA and PPDA guidelines on procurement.

A report by the Kenya Anti-Corruption Authority (KACA) (2011) found that Parastatals and Government bodies were highly afflicted by corruption, with procurement being a major platform for corruption. The process of supplier selection in Kenya as outlined by the PPOA and PPDA guidelines requires that public organizations first determine their needs, and then place an advert in media (tender advertisement) that can reach a significant proportion of the Kenyan population. After the receiving of bids that should be sealed and opened in a public forum; all bidders must be vetted to ensure they meet the required criteria as set in the tender documents. The accepted bids are then appraised using a questionnaire analysis form in line with the PPD regulation 8 (3) of 2006.

## **2.5 Supplier Evaluation Criteria and Procurement Performance**

Supplier selection is largely seen as the most vital role of the procurement function since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Li, 2008). Organizations feel that proper supplier selection would assist reduce product and material costs whilst ensuring a high degree of quality and after-sales services (Sonmez, 2006). The implication here is that an efficient appraisal should be in place for the successful procurement (Li, 2008).

Selection of appropriate suppliers is one of the fundamental strategies for enhancing the quality of output of any organization, which has a direct influence on the company's reputation since they can have a very positive or a very adverse impact on the overall performance of the organization (Weber et al., 1991). Cooperation between buyer and supplier is the starting point to establish a successful supply chain management and a necessary, but insufficient condition. The next level requires coordination and collaboration between buyer and suppliers.

There are a number of benefits of supplier appraisal these include: ability to harness the strengths and skills of suppliers to the advantage of buyers (Dwyer, Schurr & Oh, 1987), improved quality and process performance and continuous cost reductions among others (Newman, 1988). According to CIPS, (2007) supplier appraisal is also important in strategic sourcing, supplier management and the achievement of competitive advantage. Firms that appraise their suppliers discover that they have improved visibility into supplier performance, unmask and deal with hidden cost drivers, lower risk, increase competitive advantage through reducing order cycle times and stock, have insight on how to best leverage their supply base, and align practices between themselves and their suppliers (Gordon, 2006). Companies pursuing supplier appraisal commonly see over a 20% improvement in supplier performance metrics such as on-time delivery, quality, and cost.

Procurement can be full of inefficiencies some due to poor policies and strategies at the supplier's, that results to hidden costs such as stock-outs, carrying costs of overstocking, incorrect payments of invoices, slow acknowledgement and reporting of shipment and lost sales which in turn affects productivity, quality issues, increased wasteful costs (extra inspections, additional freight fees, overtime, buffer stocks, obsolete inventory, multiple sourcing) and slow movement of goods which can be improved by supplier evaluation and better communications between buyers and suppliers (Gordon, 2006). Evaluating and improving supplier performance using the quality and production capacity criteria can lead to the resultant reduction in supplier quality problems eliminates wasteful steps in a firm's own processes and at the same time helps improve understanding of supplier performance and supplier's business policies and processes and thus assisting the buyer help suppliers drive waste and inefficiency out of procurement, resulting in higher-quality suppliers and lower

costs which in turn improves the profitability of the buyer (CIPS, 2007; Lysons et al., 2008; Handfield et al., 2008)

Supplier evaluation to ensure compatibility between buyer and supplier in terms of shared business ethics, similar standards of excellence, commitment to continuous improvement are important in performance of suppliers (CIPS, 2012). Compatibility is of concern especially in adoption of procurement best practices such as lean enterprise or any high performance system that drives shorter delivery times, higher quality, and lower prices which could actually have an adverse effect on a supplier who is not aligned with these practices. According to Gordon (2006) a supplier who is unused to pursuing continuous improvement may be unable to keep up with its buyers' increasing requirements for better, cheaper, faster goods and services. Supplier appraisal is therefore important to ensure compatibility and reduce risk of failure of supplies (Handfield et. al., 2008; Lysons et al., 2008)

The financial criteria of supplier appraisal can give an important insight into supplier performance and supplier business practices which help reduce business risk, especially given firms' increasing dependence on its key suppliers. Some of the supplier risks that appraisal can mitigate on include: financial, operational, increased geographic distance and the performance of sub-tier suppliers whom the prime supplier has no contact with or knowledge of Gordon (2006).

The quality criteria help the supplier in performance improvement (Gordon, 2006). Supplier appraisal is an effective motivation tool when it leads to continuous improvement activities and real supplier performance improvement. A buyer that appraises its suppliers helps them motivated to improve on quality, delivery, and costs especially if these are used as yardsticks to reward performing suppliers (CIPS, 2012). As Gordon, (2006) posits, supplier evaluation can: unearth the causes of performance difficulties; improve understanding of business operations; cultural factors and the leadership at the supplier which lead to follow-up activities, such as supplier training and development, and corrective actions that deal with supplier evaluation findings hence coming up with the best ways to obtain measurable and positive results which will at the end improve profitability and quality performance of buying firm.

## **2.6 Empirical Review**

A study on the importance of supplier selection and assessment criteria of American manufacturing companies for items to be used in products already in production by Weber, Current, & Benton (1991) illustrated that soft, non-quantifiable selection criteria, such as a supplier's strategic commitment to a buyer, have a greater impact on performance than hard, more quantifiable criteria such as supplier capability, yet are considered to be less important. They further illustrated that assessment of a supplier's willingness and ability to share information also has a significant impact on the buying firm's performance, yet is again considered to be relatively unimportant.

In his study, Schiele (2007) established that extensive supplier audits significantly influence a firms' performance level. The results showed a highly significant relationship between purchasing's maturity level and cost-reduction results. Somewhat counter-intuitively, larger saving potential was identified in more developed firms. According to the study, if an organization's maturity is too low, the introduction of best practices, such as an innovative cost-reduction method, may fail.

A survey on public procurement in Kenya by the OECD (2007) found that overall; the performance of public procurement was 66% when using the BLI sub indicators. The results established that Kenya's regulatory and administrative framework was overly strong, compared to other aspects including transparency and integrity, management capacity and institutional framework, and market practices and procurement operations. While Kenya had a score above the threshold of 1.5 out of 3, there is still much room for improvement, especially on market practices and procurement operations.

State Corporations are organizations where the government owns more than 50 percent of the share capital, thereby making it the single largest shareholder. According to the Report of the Presidential Taskforce on Parastatal Reforms (2013), a State Corporation shall be an entity howsoever incorporated that is solely or majority owned by the government or its agents for commercial purposes. The taskforce report cautions that a commercial function is one governed by a competitive profit driven market and can be performed commercially although

Parastatals can also serve strategic socio-economic purposes as may be defined by the President from time to time.

The PPDA of 2005 stipulates the guidelines to be followed by public institutions in the procurement process. In their individual capacities, organizations develop procedures and regulations to be followed in the acquisition of materials. An effective and efficient procurement process ensures that materials are sourced and available when required without delays. It checks against the costs of stock-outs and ensures that materials are acquired competitively and at reasonable costs. There exist glaring disparities on the overall execution of the procurement process between the private sector and public sector institutions (Johnson, Leenders, & Flynn, 2011).

Aseka (2010) did a study on supplier selection criteria and performance of manufacturing firms listed in the Nairobi Stock Exchange. The study found a positive relation between effective supplier selection and organization performance. It illustrated that, firms considered quantitative factors such as the suppliers' technical expertise, commitment to quality and ability to meet delivery due dates in supplier selection than qualitative factors such as suppliers' willingness to share confidential information.

In their study, Mwikali and Kavale (2012) seeking to identify the factors affecting supplier selection illustrated that; cost, technical capability, quality assessment, organizational profile, service levels, supplier profile and risk factors are the major factors affecting selection of suppliers. Their study concluded that a cost criterion is a key factor affecting supplier selection for it dictates among many elements, the profit margins. Technical capability, quality of materials and the profile of the supplier are also closely considered.

In a study conducted by Masiko (2013), strategic procurement practices contributed to increased performance of procurement in Commercial Banks. The practices mainly included; clear goal identification and setting measurable objectives, development of strategies and tactics, supplier relationship management plan, measurement plan, category management and spend management plans and technology utilization. Procurement is increasingly becoming one of the critical and strategic functions of every organization with the potential to contribute positively to the success of operations leading to reliable service delivery and

competitiveness. Strategic procurement indeed sets in motion the entire acquisition/procurement process of all the purchases by the commercial banks.

A study done by Kamenya (2014) on the relationship between supplier evaluation and performance in large food and beverage manufacturing firms in Nairobi revealed that there is a positive relationship between performance and supplier evaluation criteria. The study illustrated that organizations need to consider the environmental friendliness of the supplier, employee capabilities of the supplier and price factors which are significantly influencing performance of the procurement. Other factors including financial stability, quality issues, and supplier's organizational culture, production capacity of the supplier and preference and reservation were found to have no significant effect on performance.

According to Barsemoi, Mwangagi and Asienyo (2014), some of the factors that contribute towards procurement performance in Kenya's private sector include staff competence, organizational structures that allow for open decision making, quality management systems and the use of information technology not only to ensure dissemination of information but also the accuracy of information reaching to all stakeholders. The authors observe that the use of IT in relaying information ensures that all suppliers get access and this reduces information asymmetry. The participation of many suppliers consequently raises the levels of competition and quality resulting in the best value of sourced materials to private sector companies. While the PPDA of 2005 has been in operation since 2007, Kenya's public institutions have been riddled with corruption resulting in many court cases and cancellation of contracts due to allegations of irregularities in the award of such contracts (Engelbert, Reit & Westen, 2012). In the public sector, procurement is used as a business tool by the government to improve the participation of disadvantaged groups such as Women and the Youths. The realization of such objectives; coupled with the need to get the best value for public funds requires effective and efficient procurement processes.

Recent research by Barsemoi, Mwangagi and Asienyo (2014) points out that the use of the internet and IT infrastructure has had a revolutionary effect on the execution of the procurement function including raising the levels of integrity in the process. Application of IT in the procurement process is singled out as one of the sure ways of reducing information asymmetry among suppliers. The authors report that the use of IT in the private sector is one



of the factors that have led to transparency in private sector procurement and also improved the competitiveness in the procurement process. In acknowledging this importance, the government has put in place ultimatums for various public procurement entities to automate their procurement processes.

Nasra (2014) also did a study seeking to establish the relationship between procurement performance and operations efficiency in the telecommunication industry in Kenya. The study found that flexibility ensured procurement performance to a great extent. Other factors were found to include; Cost, time, and quality that also played a great role in ensuring procurement performance.

Nzau and Njeru (2014) in their study on the factors affecting procurement performance in public universities and find that procurement planning, staff competency management support on procurement performance in public universities in Nairobi County. They report that 94% of respondents indicated that procurement departments prepared procurement plans. They further report that 79 percent of the respondents were of the view that procurement staff lacked adequate skills in supply chain management. Nevertheless, they report that 76 percent of the respondents acknowledged the efforts of management in providing professional support including training and educational opportunities for procurement staff. Since procurement staffs are involved in the selection and evaluation of suppliers, report by 76% of respondents that procurement staffs have inadequate skills creates suspicion as to the objectivity with which they can undertake supplier selection and evaluation. Nzau and Njeru (2014) recommend that management at public universities enhance training and professional support so as to enhance procurement performance.

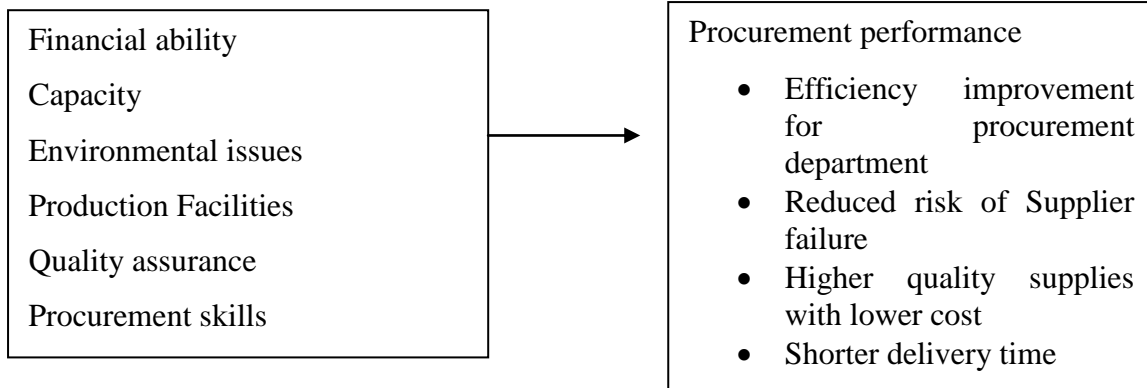
## **2.7 Conceptual Framework**

According to Ravitch and Riggan (2012), a conceptual framework refers to the broad set of principles and ideas taken from applicable areas of enquiry and employed in structuring an ensuing presentation. The study intends to use the following framework (shown in the schematic diagram) in investigating the effect of supplier selection and evaluation criteria on procurement performance in Parastatals in Kenya. Based on the PPOA and PPDA guidelines, the following conceptual framework will be used for this research;

**Figure 2.1 Conceptual Framework**

*Independent variables*

*Dependent variable*



## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This section outlines the overall research approach that was used in this research, including the research methodology and the sources of data to be used. It also outlines the methods to be employed in data collection and how the data was analyzed, interpreted and then presented. Research methodology refers to the processes used in gathering data and information for the purpose of fulfilling research objectives.

### 3.2 Research Design

The study used a descriptive research design. Descriptive research is a research design that is used in accurately describing the characteristics of the population under study and is concerned with the 'what' concept and uses descriptive categories (Kothari, 2014). According to Kothari (2004), descriptive research studies are designed to obtain relevant and precise information concerning the current status of a problem or phenomenon and whenever possible to draw valid general conclusions from the facts discovered. The descriptive research design was chosen based on the research objectives and the fact that data and information can be obtained using the method without changing the environment (Deyrup, 2013).

### 3.3 Target Population

The target population for the study included all the 187 parastatals under the state corporations' act of Kenya as at September 2015. The population of interest included the purchasing managers and procurement staff in these Parastatals.

### 3.4 Sampling

The sample size was determined using Fisher's exact test (Fishers et al, 1998) formula for 95% confidence interval shown below;

$$n = \frac{Z^2 pq}{d^2}$$

Where;

n = sample size for infinite population

Z = 1.96 (Confidence level at 95%)

p = estimated proportion with desired characteristics estimated at 95% (0.95)

q = 1-p

d = precision of the estimate at 5% (0.05)

The sample size was;

$$n = \frac{(1.96)^2 \times 0.95 \times 0.05}{(0.05)^2}$$
$$= 73$$

The adjusted sample size for the finite population was;

$$n^1 = \frac{1}{1/n + 1/N}$$

Where;

n<sup>1</sup> = adjusted sample size

n = estimated sample size for infinite population

N = Finite population size

$$n^1 = \frac{1}{1 + 73/187} = 53$$

Out of the 187 Parastatals, 53 parastatals were selected. These were considered adequate sample size for the study taking into consideration the accessibility of these organizations which are spread all over the country. To select these parastatals, stratified random sampling was used where the Parastatals were first grouped according to their nature of operations (sector of operation). From these groups, simple random was employed to select the parastatals giving each an equal chance of being selected in the study.

### 3.5 Data Collection

The primary data was obtained by means of a self-administered questionnaire by the respondent. The questionnaire was administered to the head offices of the Parastatals selected. The questionnaires were distributed to the procurement staffs in the purchasing and supplies departments of these parastatals. The questionnaire has four sections; Section A covers the demographics of the participants, Section B covers the level of use of procurement

practices and adherence to the requisite rules and regulations and relates to the second research objective; Section C dealt with the challenges faced by the organization with regard to supplier selection and evaluation and relates to the third research objective and Section D dealt with the extent of practice of supplier selection and evaluation and performance indicators in the procurement process.

### **3.6 Data Analysis**

The data was analysed using means and standard deviation for the demographic, criteria and challenges whereas inferential methods were employed to show the relationship between criteria and procurement performance. A regression model was developed to present the relationship. In this research, procurement performance of the organization was the dependent variable while supplier partnership, information sharing, technology adoption and use, customer orientation, reverse logistics, and the management of knowledge will be the independent variables. Organizational performance was evaluated using a regression model of the form

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha$$

Where;

Y - Procurement performance

$\beta_0$  - a constant,  $\beta_1$ -  $\beta_3$  – Coefficients

$X_1$ -  $X_n$  – Independent variables (criteria for evaluations of suppliers)

## CHAPTER FOUR: RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter presents an analysis of data that was collected, interpretation and discussion of the findings. It comprises of the response rate achieved, demographic characteristics of the respondents, findings on the criteria used by Parastatals in supplier evaluation, challenges encountered by parastatals on their efforts towards effective supplier evaluation criteria application, results on procurement performance as well as the influence supplier evaluation criteria on procurement performance. Results on response rate of the study are presented in Table 4.1. It shows the number of respondents who participated in the study giving reliable results.

**Table 4.1 Response Rate**

	Frequency	Percent
Response	50	94.3
Non-response	3	5.7
Total	53	100.0

As shown in Table 4.1, the response rate for the study was 94% whereas non-response was 6%. This was achieved as the researcher was able to get back 50 questionnaires out of 53 that were sent to the field making a response of 50 out of 53 responses expected.

### 4.2 Respondents' Background Characteristics

This section presents the results on the background characteristics of the respondents. These include the gender characteristics, age of the respondents, job position of the respondents as well as the number of years the respondents had worked at their various organizations.

#### 4.2.1 Gender of the Respondents

Data on gender were collected and analysed. Table 4.2.1 presents the findings on the respondents' distribution on gender basis for the 50 respondents.

**Table 4.2.1 Respondents Distribution by Gender**

		Count	Column Total N %
Gender	Female	22	44.0%
	Male	28	56.0%

According to the findings as presented in Table 4.2.1, majority of the respondents were male. The male respondents were 28 representing 56% whereas the female respondents were 22 representing 44% of the total respondents. This reveals that, the staffs employed in the study were male depicting a more representation of the male in the supply chain management of the parastatals in Kenya.

#### 4.2.2 Age of the Respondents

Data on age collected through the questionnaire was analysed and results are as presented in Table 4.2.2;

**Table 4.2.2 Respondents' Distribution by Age**

Age group	Frequency	Percent
18 – 25	1	2
26 – 30	6	12
31 – 35	11	22
36 – 40	9	18
41 – 45	15	30
46 – 50	7	14
Over 50 years	1	2

From the table, most of the respondents were aged between 41 and 45 years representing 30% of the respondents whereas the least were the respondents aged less than 25 years as well as those with more than 50 years. These two categories had 2% of the respondents each. 12% were aged 26 – 30 years, 22% were under the age group 31 – 35 years, 18% were aged 36 – 40 years whereas 14% were the respondents under the age group 46 – 50 years.

### 4.2.3 Respondents' Position

Findings under this section show the position held by the respondents in their various organizations. These are as presented in Table 4.2.3;

**Table 4.2.3 Respondents' Position**

		Count	Column Total N %
Job Position	Procurement officer	31	62.0%
	Purchasing officer	19	38.0%

According to the findings as presented in Table 4.2.3, majority of the respondents representing 62% were procurement officers whereas 38% were officers under the purchasing departments in their organizations.

### 4.2.4 Respondents' Distribution by Number of Years Worked

Findings on the number of years the respondents had worked in their respective organizations are presented in Table 4.2.4;

**Table 4.2.4 Respondents' Number of Years Worked**

		Count	Column Total N %
How long have you worked	Less than 15 years	19	38.0%
	16 -20 years	17	34.0%
	21-25 years	8	16.0%
	26 – 30 years	6	12.0%
	Over 30 years	1	2.0%

With regard to the years worked in their organizations, most of the respondents representing 38% had worked for a period of less than 15 years. These were followed by 34% who had worked for 16 – 20 years and 16% who had been working in their organization for 21 – 25 years. 12% of the respondents had worked in their current organizations for a period of 26 – 30 years while the least were the respondents who had over 30 years' experience while in their current organizations.



### 4.3 Criteria used for Supplier Evaluation

Under this section, results on the criteria used by the parastatals in supplier evaluation process are presented. Data on criteria were collected and analysed through both frequencies and mean statistics where the results are as shown in Table 4.3. Frequencies are used to present how the responses given varied in the extent into which the given criteria were used whereas the mean statistic is used to give the average level of application of a given strategy.

**Table 4.3 Criteria Used for Evaluation**

Criteria	No extent	Little extent	Moderate extent	Large extent	Very large extent	Mean	Std. Dev
quality of the Supplier services	1(2%)	7(14%)	5(10%)	24(48%)	12(24%)	4.578	.9642
Financial position of the Supplier	0(0%)	4(8%)	6(12%)	25(50%)	15(30%)	4.813	.6291
flexibility of the supplier	1(2%)	1(2%)	4(8%)	27(54%)	17(34%)	4.178	.8753
Supplier efficiency in delivery and service	2(4%)	2(4%)	3(6%)	33(66%)	10(20%)	4.734	.7762
price/cost charged by the supplier	1(2%)	3(6%)	2(4%)	15(30%)	29(58%)	4.889	.9743
Constitution and the PPOA guidelines	1(2%)	2(4%)	4(8%)	24(48%)	19(38%)	4.275	.6282
Information sharing between the organization and the supplier	0(0%)	6(12%)	2(4%)	17(34%)	25(50%)	4.211	.9972
Supplier technical capability	0(0%)	7(14%)	6(12%)	31(62%)	6(12%)	4.056	.9898
Supplier profile	1(2%)	4(8%)	2(4%)	24(48%)	19(38%)	4.428	.6932
Ability/willingness of the supplier to share confidential information	1(2%)	3(6%)	5(10%)	32(64%)	15(30%)	4.678	.8159
Selection based on the experience of the supplier in offering certain services/products	1(2%)	5(10%)	4(8%)	25(50%)	15(30%)	4.110	.8743
Compliance with procurement procedures	1(2%)	2(4%)	7(14%)	24(48%)	16(32%)	4.198	.9953

Findings as presented in Table 4.3 shows the mean response for the criteria used for supplier evaluation. The means are based on the likert scale chart used for data collection where a mean of 1.0 – 1.9 is a no extent state, 2.0 – 2.9 is a little extent, 3.0 – 3.9 is a moderate extent, 4.0 – 4.9 is a large extent and a mean value above 4.9 is an indication of a very large extent. Based on the means obtained, all the criteria indicated a mean of 4.0 – 4.9. This shows that, the parastatals consider all the given criteria to a large extent while evaluating suppliers in their supply chain operations. Evaluation based on price/cost charged by the supplier had the highest mean of 4.889 and a standard deviation of 0.9743 whereas evaluation based on the Supplier

technical capability had the lowest mean of 4.056 with a standard deviation of 0.9898. However, the range was not much as all the means are in the same interval.

Based on the frequency results, evaluation based on the quality of the supplier services was to a large extent considered in majority of the organizations as this was reported by 48% and 24% of the respondents who reported a large and a very large extent of utilization respectively. 80% of the respondents also reported that their organizations greatly considered the financial position of the supplier during supplier evaluation. As well, 88% of the respondents had their organizations which greatly considered the flexibility of the supplier during evaluation.

Findings in the table also shows that in 86% of the organizations, supplier efficiency in service delivery was greatly considered during evaluation process where as price/cost charged by the supplier was greatly considered by 88% of the organizations. 86% of the organizations were also reported to be guided by the constitution and the PPOA guidelines that they greatly put into consideration during supplier evaluation. Information sharing between the organization and supplier was greatly considered as a supplier evaluation criteria by 84% of the organizations studied.

According to the findings in the table also, 74% of the organizations greatly considers supplier technical capability during supplier evaluation process, 86% considered to a great extent the supplier profile, 94% had strategies that ensured consideration of the ability of the supplier to share confidential information, 80% practiced selection based on experience of the supplier in offering certain services/products as well as compliance with procurement procedures.

#### **4.4 Challenges of Supplier Evaluation**

The section presents results on the challenges faced by supply chain management staffs towards supplier evaluation. It shows the extent to which given challenges influence the effectiveness of supplier evaluation in parastatals. The findings are as presented in Table 4.4;

**Table 4.4 Challenges of Supplier Evaluation**

	No extent	Little extent	Moderate	Large extent	Very large extent	Mean	Std. Dev
Incompetence by procurement officers	1(2%)	1(2%)	4(8%)	27(54%)	17(34%)	4.811	.6749
Corruption	2(4%)	2(4%)	3(6%)	33(66%)	10(20%)	4.496	.9643
Ignorance of guidelines provided by the PPOA	1(2%)	3(6%)	2(4%)	15(30%)	29(58%)	4.641	.7973
Inefficiencies in procurement processes	1(2%)	2(4%)	4(8%)	24(48%)	19(38%)	4.618	.8953
Lack of incentives to the organizations	0(0%)	6(12%)	2(4%)	17(34%)	25(50%)	4.710	.4765
Pressure of implementing PPOA and PPDA guidelines on procurement.	1(2%)	7(14%)	5(10%)	24(48%)	12(24%)	4.148	.9021
Cost of implementing procurement systems	0(0%)	4(8%)	6(12%)	25(50%)	15(30%)	4.803	.7096
Cost of maintaining procurement system	1(2%)	1(2%)	4(8%)	27(54%)	17(34%)	4.628	.6204
Lack of management support	2(4%)	2(4%)	3(6%)	33(66%)	10(20%)	4.558	.7990
Lack of expertise in evaluation among supply chain staffs	1(2%)	3(6%)	2(4%)	15(30%)	29(58%)	4.800	.9002
Inadequate transparency from the suppliers	1(2%)	7(14%)	5(10%)	24(48%)	12(24%)	4.228	.5901
Lack of clear goals towards procurement	0(0%)	4(8%)	6(12%)	25(50%)	15(30%)	4.677	.7591

Findings as presented in Table 4.4 indicate the mean values of the results as well as their standard deviation which are derived from the frequencies of the responses given. The mean values obtained for all the challenges indicated a mean value in the range 4.0 – 4.9. These also had standard deviations which are all less than 1 indicating no much variance in the responses given from the actual mean. The highest mean obtained was 4.811 for the challenge of incompetence of the procurement officers in evaluation process. This had a standard deviation of 0.6749 indicating that it was the biggest challenge experienced above other challenges given. The lowest was the challenge of Pressure of implementing PPOA and PPDA guidelines on procurement which had a mean of 4.148 indicating that this would be ranked the least among the challenges.

Findings on frequencies as well show that, according to 88% of the respondents, incompetence by procurement officers is a great challenge to the supplier evaluation process. 66% and 20% of the respondents considered corruption as a challenge that had a large extent and a very large extent of influence respectively. According to 88% of the respondents, ignorance of guidelines provided by the PPOA is a challenge that affects supplier evaluation process to a very great extent. Also, 86% of the respondents reported that inefficiencies in procurement processes created a great challenge in supplier evaluation in organizations.

From the table also, findings reveal that, lack of incentives greatly affect supplier selection process as reported by 84% of the respondents. Pressure of implementing PPOA and PPDA guidelines in supplier selection was reported to be greatly affecting supplier evaluation by 72% of the respondents. Further, 80% of the respondents reported that cost of implementing procurement systems was a great challenge in their organizations' efforts towards supplier evaluation process effectiveness. As well, as reported by 88% of the respondents, the cost of maintaining procurement system in organizations greatly challenged the supplier evaluation effectiveness.

Supplier evaluation efficiency also experiences a great challenged due to lack of management support. This is according to the response given by 66% and 20% of the respondents who reported a great extent and a very great extent of influence respectively. Further, lack of expertise in evaluation among supply chain staffs was reported to be a major challenge to the evaluation process by 88% of the respondents. 72% of the respondents as well reported the challenge of inadequate transparency from suppliers whereas 80% reported the lack of clear goals towards procurement as a major challenge in supplier evaluation process.

#### **4.5 Effects of Supplier Evaluation Criteria on Procurement Performance**

The results on the procurement performance as well as the influence of the supplier evaluation criteria on procurement performance are presented under this section. These are in frequencies as well as their mean values based on the extent of influence of supplier evaluation on procurement performance.

**Table 4.5 Procurement Performance**

	No extent	Little extent	Moderate extent	Large extent	Very large extent	Mean	Std. Dev
Reduction in product and material costs	1(2%)	4(8%)	2(4%)	24(48%)	19(38%)	4.473	.8721
Enhanced quality of output	1(2%)	3(6%)	5(10%)	32(64%)	15(30%)	4.871	.5632
Rate of returned goods/materials	1(2%)	5(10%)	4(8%)	25(50%)	15(30%)	4.692	.9170
Reduction in supplier quality problems	1(2%)	2(4%)	7(14%)	24(48%)	16(32%)	4.163	.7783
Eliminating wasteful steps in production process	1(2%)	1(2%)	4(8%)	27(54%)	17(34%)	4.801	.9321
Supplier flexibility	2(4%)	2(4%)	3(6%)	33(66%)	10(20%)	4.692	.4789
Efficiency in supply chain management	1(2%)	3(6%)	2(4%)	15(30%)	29(58%)	4.568	.9008
Transparency in procurement about winning bids and prices	1(2%)	1(2%)	4(8%)	27(54%)	17(34%)	4.801	.8203
Procurement function work in compliance with procurement procedures	2(4%)	2(4%)	3(6%)	33(66%)	10(20%)	4.692	.5690
Is the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement	1(2%)	3(6%)	11(22%)	20(40%)	15(30%)	4.151	.3926

On the procurement performance, as shown in Table 4.5, effectiveness of the evaluation process leads to improved performance in the procurement procedures. The results on means and standard deviations show that, all the aspects of performance obtained a mean score of values between 4.0 and 4.9 which the range for a large extent of agreement. Based on the mean results, the highest rank was obtained as 4.871 which indicated that with effective supplier evaluation criteria, an organization will benefit with enhanced quality of output in its operations. The lowest mean obtained on the other hand was 4.151 for the aspect that supplier evaluation is the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement.

With respect to the frequency analysis, results indicate that best practices in supplier evaluation results to reduction in product and material costs. This is as reported by 48% and 38% who agreed to a large and to a very large extent respectively. 94% of the respondents also agreed that supplier evaluation leads to enhanced quality of output. With efficiency supplier evaluation, an organization encounters a decreased rate of rate of return inwards as reported by 80% of the respondents.

There are also reduced supplier quality problems with appropriate supplier evaluation criteria according to the response given by 80% of the respondents. Appropriate supplier evaluation criteria also result to an elimination of wasteful steps in production process, supplier flexibility, efficiency in supply chain management, transparency in procurement about winning bids and prices, as well leads to procurement function working in compliance with procurement procedures. These had majority of the respondents who agreed to a great extent supporting the influence of supplier selection to the procurement performance of the organizations. Supplier evaluation gives the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement as reported by 88% of the respondents.

**Table 4.5.1 Supplier Evaluation Criteria and Procurement Performance**

<b>Criteria</b>	No extent	Little extent	Moderate	Large extent	Very large extent	Mean	Std. Dev
quality of the Supplier services	1(2%)	1(2)	4(8)	27(54)	17(34)	4.801	.6832
Financial position of the Supplier	2(4%)	1(2%)	4(8%)	30(60%)	13(26%)	4.792	.6692
flexibility of the supplier	1(2%)	2(4%)	3(6%)	18(36%)	28(56%)	4.871	.9216
Supplier efficiency in delivery and service	0(0%)	2(4%)	5(10%)	24(48%)	19(38%)	4.558	.5823
price/cost charged by the supplier	0(0%)	6(12%)	2(4%)	17(34%)	25(50%)	4.782	.8936
Constitution and the PPOA guidelines	1(2%)	3(6%)	2(4%)	25(50%)	19(38%)	4.693	.7282
Information sharing between the organization and the supplier	0(0%)	3(6%)	5(10%)	31(62%)	17(34%)	4.896	.9937
Supplier technical capability	1(2%)	5(10%)	4(8%)	25(50%)	15(30%)	4.721	.7493
Supplier profile	1(2%)	2(4%)	7(14%)	24(48%)	16(32%)	4.473	.8025
Ability/willingness of the supplier to share confidential information	1(2%)	2(4%)	2(4%)	26(52%)	19(38%)	4.578	.9310
Selection based on the experience of the supplier in offering certain services/products	1(2%)	3(6%)	5(10%)	32(64%)	15(30%)	4.813	.5405
Compliance with procurement procedures	1(2%)	1(2%)	2(4%)	26(52%)	20(40%)	4.178	.6612

To study the influence of supplier selection criteria on procurement performance, the respondents were requested to indicate the extent to which application each of the Supplier evaluation Criteria in selecting suppliers has affected Procurement Performance in their

organization. From the results, mean values for the responses were computed with their standard deviations showing the average extent of influence of supplier evaluation criteria on procurement performance. From the table, all the criteria indicated mean values in the range of 4.0 – 4.9 indicating that the respondents reported a large extent to which these criteria influenced procurement performance. The standard deviations as well were found to be less than 1 for all the criteria used. This shows no much variation of the responses from the average value obtained. From the table, the highest mean was obtained for the information sharing between the supplier and the management with a mean of 8.896 whereas the least was the mean for the compliance criteria with a mean of 4.178.

According to the findings on the frequencies, 88% of the respondents reported that evaluation based on the quality of the Supplier services had a great effect on procurement performance of the organizations. Selection based on the financial position of the Supplier was also reported by 60% and 26% of the respondents to have a great and very great extent of influence to the procurement performance.

Findings also revealed that selection based on the flexibility of the supplier greatly affect performance. This is according to 36% and 56% of the respondents who reported a great and a very great extent of influence respectively. Further, on the supplier efficiency in delivery and service criteria, majority of the respondents reported that the criteria had a great effect on procurement performance as shown in the table. Evaluation based on price/cost charged by the supplier criteria as well was reported to have a great effect on procurement performance by 84% of the respondents.

According to the response given by 88% of the respondents, evaluation based on constitution and the PPOA guidelines criteria has a great extent of influence to supplier selection. As well, 96% of the respondents reported that selection based on the ability of the supplier to share information with the organization greatly affects procurement performance. Supplier evaluation criteria of Supplier technical capability as well as supplier profile also were found to have a great effect on procurement performance as reported by 80% of the respondents. Findings further reveal that the ability/willingness of the supplier to share confidential information, selection based on the experience of the supplier in offering certain services/products as well as compliance with procurement procedures greatly affects

procurement performance. This is with reference to the response given by 90%, 94% and 92% of the respondents respectively who reported a great and very great extent of influence of these supplier evaluation criteria to the procurement performance.

## 4.5.2 Inferential Results

### 4.5.2.1 Correlation Results

Correlation analysis was undertaken to test the association between the dependent and independent variables. The dependent variable in this study was the procurement performance whereas the independent variables were the supplier evaluation criteria used. To test the association, Pearson correlation coefficient test was used. The correlation matrix in Table 4.5.2.1 presents these results;

**Table 4.5.2.1 Correlation Results**

		Procurement Performance
Procurement Performance	Pearson Correlation	1
	Sig. (2-tailed)	
quality of the Supplier services	Pearson Correlation	.750*
	Sig. (2-tailed)	.012
Financial position of the Supplier	Pearson Correlation	.710**
	Sig. (2-tailed)	.009
flexibility of the supplier	Pearson Correlation	.679**
	Sig. (2-tailed)	.000
Supplier efficiency in delivery and service	Pearson Correlation	.592*
	Sig. (2-tailed)	.004
price/cost charged by the supplier	Pearson Correlation	.530**
	Sig. (2-tailed)	.000
Constitution and the PPOA guidelines	Pearson Correlation	.742*
	Sig. (2-tailed)	.019
Information sharing	Pearson Correlation	.646*
	Sig. (2-tailed)	.008
Supplier technical capability	Pearson Correlation	.648*
	Sig. (2-tailed)	.002
Supplier profile	Pearson Correlation	.713**
	Sig. (2-tailed)	.001
Ability/willingness to share confidential information	Pearson Correlation	.726*
	Sig. (2-tailed)	.011
Supplier experience	Pearson Correlation	.774**
	Sig. (2-tailed)	.000
Compliance with procurement procedures	Pearson Correlation	.691*
	Sig. (2-tailed)	.016

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

\*\* . Correlation is significant at the 0.01 level (2-tailed).



As shown in the table, all the supplier evaluation criteria indicated a positive correlation with procurement performance. All the correlations were found to be statistically significant testing at the 5% level in a 2-tailed test. This is as all the p-values obtained are all less than 0.025 the critical value at the 5% level. The strongest correlation was found between procurement performance and Selection based on the experience of the supplier in offering certain services/products (0.774) followed by evaluation based on quality of the Supplier services (0.75) and evaluation based on Constitution and the PPOA guidelines (0.742). On the other hand, the least correlational strength existed between procurement performance and evaluation based on price/cost charged by the supplier with a correlation of 0.530 which is a moderate correlation.

#### 4.5.2.2 Regression Results

In this study, regression analysis was used to test the relationship between the dependent and independent variables. The relationship between the variables was tested at the 5% level where the R-square (coefficient of determination) was used to show the percentage of the changes in procurement performance as explained by the independent variables. ANOVA was used to test the reliability of the model in presenting the relationship between the variables. Table 4.5.2.2 gives the regression model summary;

**Table 4.5.2.2 Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898 <sup>a</sup>	.829	.805	2.62180

a. Predictors: (Constant), quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, Compliance with procurement procedures

Findings as illustrated in Table 4.5.2.2 reveal that the coefficient of determination (R<sup>2</sup>) equals 0.829. This shows that holding other factors constant, the predictor variables in this study (quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, and Compliance with procurement procedures) explains 82.9% of the variation in the procurement performance. Thus, the variation due to other factors that were not considered in the study is 17.1% implying that the variables used command a significant variation in the procurement performance.

The adjusted R Square in the table is 0.805 indicating that in case where the study population could have been changed, the study results could have varied by 19.5% from the current results. Therefore, the study results are 80.5% valid as shown by the adjusted R square value.

**Table 4.5.2.3 Analysis of Variance (ANOVA)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.433	9	2.937	4.1705	.001 <sup>a</sup>
	Residual	28.169	40	.704225		
	Total	54.602	49			

a. Predictors: (Constant), quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, Compliance with procurement procedures

b. Dependent Variable: Procurement Performance

From the table, the significance value is 0.001 which is less than 0.025 the critical value at the 5% level in a 2-tailed test. This therefore shows that the model is statistically significant

in predicting the procurement performance of the manufacturing companies with the use of the variables selected. The F critical at 5% level of significance is 3.23 whereas from the table, the F calculated is 4.1705 which is greater than the F critical. Thus, the overall model was significant in presenting the relationship between the variables.

**Table 4.5.2.3 Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.010	.026		.401	.000
quality of services	.211	.590	.178	.357	.012
Financial position flexibility	.144	.081	.311	1.777	.002
Supplier efficiency	.377	.555	.359	.679	.011
price/cost	.203	.008	.088	.435	.000
Constitution and the PPOA guidelines	.041	.003	.054	.250	.016
Information sharing	.134	.097	.240	1.378	.003
technical capability	.187	.205	-.199	-.915	.001
Supplier profile	.012	.014	-.232	-.866	.001
Ability/willingness to share confidential information	.025	.002	.026	.109	.014
Supplier experience	.136	.180	-.038	-.202	.024
Compliance with procurement procedures	.103	.016	-.057	-.207	.002
	.011	.002	.031	.135	.022

a. Dependent Variable: Procurement Performance

The coefficients in Table 4.11 answer the regression equation relating the depended and the independent variables. Testing the significance of the coefficients at 95% significance level, the table indicates that all the variables had a significance value less than 0.05 thus confirming the significance of the results. Also, from the table, all the variables indicated a positive coefficient indicating a positive relationship between the dependent and independent variables. Based on these coefficients, the regression model therefore becomes;

$$\text{Procurement Performance} = 0.010 + 0.211 \text{ Cr1} + 0.144 \text{ Cr2} + 0.377 \text{ Cr3} + 0.203 \text{ Cr4} + 0.041 \text{ Cr5} + 0.134 \text{ Cr6} + 0.187 \text{ Cr7} + 0.012 \text{ Cr8} + 0.025 \text{ Cr9} + 0.136 \text{ Cr10} + 0.011 \text{ Cr11}$$

Thus, the model indicates that, holding the predictor variables constant, procurement performance would have a coefficient of 0.010. Increasing the efficiency in evaluation criteria would therefore lead to increased procurement performance as shown by the coefficients which are all positive indicating a positive influence of the given evaluation criteria on procurement performance.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

The chapter presents a summary of the study results as discussed in chapter four, conclusions that were made based on the findings as well as the recommendations that the researcher made with regard to the study results. The chapter also presents the recommendations that were made for further areas of research.

### **5.2 Summary**

The study was undertaken with the aim of investigating the supplier evaluation criteria and the influence to the procurement performance in Kenya. The study findings revealed majority of the organizations considered evaluation based on the quality of the supplier services, financial position of the supplier as well as the flexibility of the supplier during supplier evaluation. Other considerations made were supplier efficiency in service delivery, price/cost charged by the supplier, constitution and the PPOA guidelines, information sharing between the organization and supplier, supplier technical capability, supplier profile, ability of the supplier to share confidential information, experience of the supplier in offering certain services/products as well as compliance with procurement procedures.

The study findings established major challenges that affected the effectiveness of the procurement evaluation process. These included; incompetence by procurement officers, corruption, and ignorance of guidelines provided by the PPOA, as well as inefficiencies in procurement processes. Lack of incentives, pressure of implementing PPOA and PPDA guidelines, cost of implementing procurement systems as well as maintaining procurement system greatly affects supplier selection process. Other challenges included lack of management support, lack of expertise in evaluation among supply chain staffs, inadequate transparency from suppliers as well as lack of clear goals towards procurement.

With regard to procurement performance, the study findings indicated that best practices in supplier evaluation results to reduction in product and material costs as well as enhanced quality of output. Findings also revealed that with efficiency supplier evaluation, an organization encounters a decreased rate of rate of return inwards, reduced supplier quality

problems, elimination of wasteful steps in production process, supplier flexibility, efficiency in supply chain management, transparency in procurement about winning bids and prices, as well leads to procurement function working in compliance with procurement procedures. Supplier evaluation as well gives the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement.

The study findings on the influence of supplier selection criteria on procurement performance revealed that evaluation based on the quality of the Supplier services greatly influences procurement performance. As well, selection based on the financial position of the Supplier was also reported to have a great and very great extent of influence to the procurement performance. Findings also revealed that selection based on the flexibility of the supplier greatly affect performance. Further, supplier efficiency evaluation criteria were found to have a great effect on procurement performance. Evaluation based on price/cost charged by the supplier criteria as well was reported to have a great effect on procurement performance. Other evaluation criteria used were constitution and the PPOA guidelines criteria, ability of the supplier to share information with the organization, Supplier technical capability as well as supplier profile which were found to have a great effect on procurement performance. Findings further revealed that the ability/willingness of the supplier to share confidential information, selection based on the experience of the supplier in offering certain services/products and compliance with procurement procedures greatly affects procurement performance.

The correlation test for the association between these selection criteria and procurement performance revealed a positive correlation between all the evaluation criteria and procurement performance of the organizations. The associations were also found to be statistically significant at the 5% level of significant. Correlation between procurement performance and Selection based on experience of the supplier in offering certain services/products criteria had the strongest association of 0.774 followed by evaluation based on quality of the Supplier services with 0.75 and evaluation based on Constitution and the PPOA guidelines with 0.742 whereas the least correlational strength existed between procurement performance and evaluation based on price/cost charged by the supplier with a correlation of 0.530 which is a moderate correlation.

Conducting a regression test, the study findings revealed that the selection criteria used (quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, and Compliance with procurement procedures) explains 82.9% of the procurement performance. All these criteria were found to have a positive relationship with procurement performance of the organizations. The relationship was also tested to be significant at the 5% level of significant indicating significant influence of the evaluation criteria on procurement performance.

### **5.3 Conclusion**

Based on the findings presented above, the study concludes that; parastatals in Kenya employ several criteria in supplier evaluation processes. These majorly include selection based on the following criteria; quality of the supplier services during, financial position of the supplier, flexibility of the supplier, supplier efficiency in service delivery, supplier charges, constitution and the PPOA guidelines, information sharing between the organization and supplier, supplier technical capability, supplier profile, ability of the supplier to share confidential information, experience of the supplier in offering certain services/products as well as compliance with procurement procedures.

Several challenges were found to have greatly affected supplier evaluation criteria and performance of procurement in Parastatals. This included corruption in the supply chain, incompetent procurement officers, inefficiencies in procurement processes, lack of incentives, pressure of implementing PPOA and PPDA guidelines, cost of implementing procurement systems as well as maintaining procurement system greatly affects supplier selection process. The lack of management support, lack of expertise in evaluation among supply chain staffs, inadequate transparency from suppliers as well as lack of clear goals towards procurement also affect the ability of an organization to effectively manage its evaluation process.

There is a positive and significant relationship between supplier evaluation criteria and procurement performance in parastatals. The positive relationship shows that the choice of

the evaluation criteria will determine the performance of the procurement in the parastatals. Thus, increasing efficiency in supplier evaluation criteria will result to increased procurement performance.

#### **5.4 Recommendations**

The study therefore, based on the findings and conclusions presented above makes recommendations that; the management and the supply chain management for the Parastatals in Kenya need to effectively evaluate the most effective evaluation criteria that would facilitate its procurement performance. Having effective supply chain management will determine the ability of the procurement performance of the organization. There is need to ensure that competent personnel are in place to manage supply chain processes in the organizations. This would be facilitated through training of all the staffs in the supply chain on critical aspects of supply chain with major concern on supplier evaluation criteria.

The study also recommends that, parastatals as well as other corporations should be guided by the constitution as well as the PPOA guidelines on supplier evaluation for these to ensure effectiveness and performance of the procurement systems. Funds should also be availed for the supply chain to effectively manage the procurement systems for improved performance in the procurement activities.

#### **5.6 Limitations of the Study**

Although the study was successfully undertaken, some challenges (limitations) were encountered during the study execution period. These included; financial limitations where the research required much funds for the data collection as well as other costs in the study event. The study was also limited to the procurement performance in Parastatals in Kenya. The study was further faced with the limitation of the use of questionnaire tool for the data collection. This is because the respondents only answered the given questions without giving extra information which would be sought using other data collection techniques like the use of interviews where the researcher would have asked for more information.



## **5.6 Suggestion for Further Research**

There is need for further studies to be undertaken covering other organizations in Kenya to study the effectiveness of the procurement systems as well as the supplier selection and evaluation criteria used. A study also need to be undertaken to evaluate the best practices that effectively lead to best performance in the procurement performance in all public sector organizations in Kenya. Also, a study should be undertaken to investigate the supplier evaluation criteria and procurement performance of the county governments in the devolved system of government.

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## Appendix II: Questionnaire

### Section A: Background of the Respondents

#### Respondents

##### 1. Gender

Male ( )

Female ( )

##### 2. Age

18 -25 years ( )

36 – 40 years ( )

26 - 30 years ( )

41 – 45 years ( )

31 - 35 years ( )

46 – 50 years ( )

Over 50 years ( )

##### 3. Job position

Procurement officer ( )

Purchasing officer ( )

Other (specify) \_\_\_\_\_

##### 4. How long have you worked in the current organization?

Or less 15 years ( )

16 – 20 years ( )

21 – 25 years ( )

26 – 30 years ( )

Over 30 years ( )

#### Organization

5. Name of Organization \_\_\_\_\_

6. Year of incorporation \_\_\_\_\_

7. Number of employees \_\_\_\_\_

8. Class of organization \_\_\_\_\_

**Section C: Criteria used for evaluation**

9. To what extent does the organization consider each of the following criteria in supplier evaluation? Indicate using the scale of 1 to 5 where;

- 1 - No extent
- 2- Little extent
- 3- Moderate
- 4- Large extent
- 5 - Very large extent.

<b>Criteria</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Quality of the Supplier services					
Financial position of the Supplier					
flexibility of the supplier					
Supplier efficiency in delivery and service					
price/cost charged by the supplier					
Constitution and the PPOA guidelines					
Information sharing between the organization and the supplier					
Supplier technical capability					
Supplier profile					
Ability/willingness of the supplier to share confidential information					
Selection based on the experience of the supplier in offering certain services/products					
Compliance with procurement procedures					

**Section D: Challenges of Supplier Evaluation**

10. To what extent does the organization face each of the following challenges of supplier evaluation? Indicate using the scale of 1 to 5 where;

- 1 - No extent
- 2- Little extent
- 3- Moderate
- 4- Large extent
- 5 - Very large extent

<b>Challenge</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Incompetence by procurement officers					
Corruption					
Ignorance of guidelines provided by the PPOA					
Inefficiencies in procurement processes					
Lack of incentives to the organizations					
Pressure of implementing PPOA and PPDA guidelines on procurement.					
Cost of implementing procurement systems					
Cost of maintaining procurement system					
Lack of management support					
Lack of expertise in evaluation among supply chain staffs					
Inadequate transparency from the suppliers					
Lack of clear goals towards procurement					

**Section E: Procurement Performance**

11. Indicate the extent to which organization procurement performance has been affected with application of supplier evaluation criteria. Indicate the extent for each attribute of Procurement Performance using a scale of 1 to 5 where;

- 1- No extent
- 2- Little extent
- 3- Moderate
- 4- Large extent
- 5 - Very large extent.

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Reduction in product and material costs					
Enhanced quality of output					
Rate of returned goods/materials					
Reduction in supplier quality problems					
Eliminating wasteful steps in production process					
Supplier flexibility					
Efficiency in supply chain management					
Transparency in procurement about winning bids and prices					
Procurement function work in compliance with procurement procedures					
Is the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement					

**Section F: Supplier Evaluation Criteria and Procurement Performance**

12. Indicate the extent to which application each of the following Supplier evaluation Criteria in selecting suppliers has affected Procurement Performance in the organization using a scale of 1 to 5 where ;

- 1- No extent
- 2- Little extent
- 3- Moderate
- 4- Large extent
- 5 - Very large extent.

<b>Criteria</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
quality of the Supplier services					
Financial position of the Supplier					
flexibility of the supplier					
Supplier efficiency in delivery and service					
price/cost charged by the supplier					
Constitution and the PPOA guidelines					
Information sharing between the organization and the supplier					
Supplier technical capability					
Supplier profile					
Ability/willingness of the supplier to share confidential information					
Selection based on the experience of the supplier in offering certain services/products					
Compliance with procurement procedures					

*Thank you for your response*

### Appendix III: List of Parastatals Kenya (2015)

Agricultural Development Corporation	Kenya Marine and Fisheries Research Institute
Anti-Counterfeit Agency Board	Kenya Maritime Authority
Anti-Money Laundering Advisory Board	Kenya Meat Commission
Athi Water Services Board	Kenya Medical Research Institute
Bomas of Kenya Board	Kenya Medical Training College
Capital Markets Authority	Kenya Pipeline Company Limited
Chemelil Sugar Company Limited	Kenya Ports Authority
Coast Development Authority	Kenya Ports Authority Board
Coast Water Services Board	Kenya Railways Corporation Board
Energy Regulatory Commission	Kenya Trade Network Agency Board
Export Processing Zones Authority	Kenya Utalii College Council
Geothermal Development Company Limited	Kenya Veterinary Vaccines Production Institute
Industrial and Commercial Development Corporation	Kenya Wildlife Service Board
Industrial Development Bank	Kenya Yearbook Editorial Board
International Convention Centre Board	Kenyatta International Convention Centre
Jomo Kenyatta Foundation	Kenyatta National Hospital Board
Kenya Accreditation Service	Kerio Valley Development Authority
Kenya Airports Authority Board	Lake Victoria North Water Services Board
Kenya Animal Genetics Resource Center	Lake Victoria South Water Services Board
Kenya Civil Aviation Authority Board	Micro and Small Enterprises Authority
Kenya Electricity Transmission Company Limited	National Campaign against Drug Abuse Authority Board
Kenya Ferry Services Limited	National Cereals and Produce Board
Kenya Forestry Research Institute	National Council for Children Services
Kenya Forests Service	National Council for Population and Development
Kenya Industrial Research and Development Institute	National Development Fund for Persons with Disabilities
Kenya Investment Authority	

National Drought Management Authority  
National Environment Trust Fund  
National Environmental Management  
Authority  
National Housing Corporation Board  
National Irrigation Board  
National Oil Corporation of Kenya  
National Standards Council  
National Water Conservation and Pipeline  
Corporation  
New Kenya Co-operative Creameries  
Limited  
Northern Water Services  
Numerical Machining Complex Limited  
Nyayo Tea Zones Development  
Corporation  
Nzoia Sugar Company Limited

Policy Holders Compensation Fund  
Postal Corporation of Kenya  
Privatization Commission Kenya  
Retirement Benefits Authority  
Rift Valley Water Services Board  
Rural Electrification Authority  
South Nyanza Sugar Company Limited  
Sports Kenya  
Tana and Athi Rivers Development  
Authority  
Tana Water Services Board  
The Jomo Kenyatta Foundation  
Uwezo Fund  
Water Services Regulatory Board  
Water Services Trust Fund  
Women Enterprise Fund Advisory Board