INFLUENCE OF SUPPLIER EVALUATION CRITERIA ON THE PERFORMANCE OF STATE CORPORATIONS IN KENYA

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

This work is dedicated to my Parents; Francis Wachiuri and Rachel Wachiuri and my two sisters; Lillian and Millicent.

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LIST OF ABBREVIATIONS AND ACRONYMS

AGDF	Australian Government department of finance
AHP	Analytic Hierarchy Process
ASC	Approved Suppliers List
CIPS	chartered institute of purchasing and supply
CSCMP	council of supply chain management professionals
EDI	Electronic Data Interface
ESI	Early Supplier Involvement
MAUT	Multiple Attribute Utility Theory
PPDA	Public Procurement and Disposal Act
RBT	Resource Based Theory
RPTPR	Report of the Presidential Taskforce on Parastatal Reforms
ROK	Republic of Kenya
R&D	Research and development
SCs	State Corporations
SE	supplier evaluation
SHE	Safety, Health and Environment
SPSS	Statistical package for social sciences
WB	World Bank

DEFINITION OF TERMS

Supply chain management: is the integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive model (CSCMP, 2013).

Supplier evaluation: is the assessment process applied to existing and new suppliers in order to measure and monitor their performance in order to reduce costs, mitigate risk and drive continuous improvement (Gordon, 2008)

Supplier quality commitment: is the ability of an organisation to effectively monitor and manage quality. (Garvin, 2005). Quality refers to the ability of a product or service to consistently meet or exceed customer'sexpectations. (Holjevac, 2008).

Supplier competence: is the ability to select successfully or efficiently suppliers and allow the measurement of the progress and development (Srinivasan, 2013). Competencies are behavioural expectations, set, or actions necessary for a successful work effort.

Supplier financial viability: is the ability of an entity to continue to achieve its operating objectives and fulfil its mission over the long term. It evaluates the risk that, over the life of a proposed contract, conducting financial viability assessments imposes a cost on tenderers and the entity, assessments should be commensurate with the scale, scope and relative risk of the proposed project (AGDF, 2014).

Supplier capacity is the maximum amount that suppliers can contain (Wangwe, 2010). Also on the other hand, it reflects how robust and agile your supply chain is to disruptions. At any given time, the measure of what your maximum supply chain capacity is will be a fixed figure, which could be expressed as a percentage of total capacity (Patrick, 2013).

Performance: it's the analysis a company's performance against its objectives and goals. The analysis focuses on three main outcomes, first, shareholder value performance; second, financial performance; and third, market performance. (Richard et al., 2009).

ABSTRACT

In Kenya state corporations have become a strong entity and very useful engines to promote development. State corporations play vital roles in an economy of a country as it even creates employment opportunities. The performance of State Corporations (SCs) however, has been a matter of on-going concern in an environment of resource scarcity and mounting needs. Therefore, the purpose of this study was to investigate the influence of supplier evaluation criteria on the performance of state corporations in Kenya. The study was guided by the following specific objectives: to establish the influence of supplier quality commitment on the performance of state corporations in Kenya, to determine the influence of supplier competence on the performance of state corporations in Kenya, to establish the influence of supplier financial viability on the performance of state corporations in Kenya and to establish the influence of supplier capacity on the performance of state corporations in Kenya. The study was anchored on the following theories, grey system theory, multiple attribute utility theory, the lean supplier competence model and rough set theory. The study adopted cross-sectional survey design using both quantitative and qualitative approaches. The target population was all the 187 state corporations in Kenya. The study employed a census approach. Primary data was collected using questionnaires. A pilot study was conducted to measure the research instruments reliability and validity. Descriptive statistics were used aided by Statistical Packages for Social Sciences version 24 to compute percentages of respondents' answers. Inferential statistics using linear regression and correlation analysis were applied to assist examining relationship between the research variables. The results were presented using tables and graphs. The study findings indicated that supplier quality commitment, supplier competence, supplier financial viability and supplier capacity have a positive and significant association with performance of state corporations. This implied that supplier evaluation and performance of state corporations change in the same direction. Further, the study found out that supplier quality commitment and performance of state corporations are positively and significantly related, supplier competence and performance of state corporations are positively and significantly related Further, it was established that supplier financial viability and performance of state corporations are positively and significantly related, also supplier capacity and performance of state corporations were found to be positively and significantly related. This implied that supplier evaluation has a positive and significant influence on performance of state corporations. The study recommended that the need for suppliers to improve on the quality of their services; develop competent technical abilities so as to provide high quality products or services; formulate an effective financial plan, which will ensure that their financial viability is sustainable; and enhance their capacity so as to meet the expectations of their customers. The implication of the study is that supplier evaluation play a significant role in the performance of state corporations in Kenya. Therefore, there is need for state corporations to regularly assess the quality, competence, financial viability and capacity of all their suppliers.

CHAPTER ONE

INTRODUCTION

This chapter introduces the study and it reviews the background of the study, statement of the problem, the study objectives, the research hypotheses, justification and the scope of the study.

1.1 Background of the Study

In today's highly competitive environment, an effective supplier evaluation process is very important to the success of any organization (Liu & Hai, 2010). Selecting the right supplier is always a difficult task for the procurement manager. Suppliers have varied strengths and weaknesses, which require careful assessment by the purchasers before ranking, can be given to them. Therefore, every decision needs to be integrated by trading-off performances of different suppliers at each supply chain stage (Liu & Hai, 2010).

Also, choosing the right supplier will be positive for the company. For instance, firms should select the most appropriate suppliers according to the production capacity of all potential suppliers, and build long-term and profitable relationships with them (Wang & Yang, 2012). Selecting the right suppliers is key to the procurement process and represents a major opportunity for companies to reduce costs. Supplier evaluation and selection is a process of finding the appropriate suppliers who can provide the best and quality products and/ or services at the right time and at the right amount with an acceptable price. In an environment dominated by global markets business success depends on the success of the selection of suppliers. In organizations which are more dependent on suppliers, the direct and indirect impacts of the ineffective decisions become more critical.

In a supply chain, collaboration between the company and the supplier is the most important connection of the distribution channel. The global competitive environment, make the organizations highly dependent on the success of the supplier selection process. The lack of coordination or error in this process may lead to

excessive delay or poor customer services. In this sense, as it has direct influence on reducing the costs, on profitability and flexibility of a business, decisions taken by the purchasing department significantly affects the efficiency and effectiveness of the business (Chan & Kumar, 2014).

According Chartered Institute Of Procurement And Supply (CIPS) (2018), supplier evaluation is conducted at the tender stage and can be in the form of either a questionnaire, interview or site visit to assess the supplier's capability in terms of capacity, financial stability, quality standards, performance and organisational structure and processes in place. Both existing and potential suppliers are scored on suitability and either approved or rejected to be added onto the approved supplier list (ASL). This helps to improve existing suppliers performance and also can periodically ensure you have the right sized and fit of suppliers on you approved list. Nadir (2012), alluded that supplier evaluation is perceived as a tool which provides the buying firm with a better understanding of which suppliers are performing well and which suppliers are not performing well. But studies reveal that even after having carried out an in-depth supplier evaluation plus appraisal coupled with the enactment of Public Procurement and Asset Disposals Act (PPAD) of 2015 and other policies on supplier evaluation, inefficiencies still exist ranging from supplies being made halfway or even termination of contracts before conclusion.

Any organizational success often hinges on the most appropriate selection of its partners and suppliers. Role of procurement departments has changed significantly in today's competitive environment. In order to keep the promises to customers; an effective material procurement system becomes necessary beside the improved manufacturing methods and technology. It becomes a necessity to work with the suppliers to provide quality and just in time delivery by supplying raw materials, parts and products (Semra, Birgün & Barla, 2011). One of the techniques used by organization to select best suppliers is supplier evaluation. Supplier evaluation is the quantitative and qualitative assessment of suppliers to ensure a portfolio of best in class suppliers is available for use (Kemunto, 2014).

The concept of supplier evaluation has gained popularity among practitioners and even scholars (Humphreys, 2013). In Malaysia, for instance, Junli (2008) conducted a study to assess the impact of supplier evaluation on business performance among private hospitals. In Nigeria, the study conducted by Akenroye *et al.* (2012) on supply chain practices identified supplier evaluation and a critical supply chain activity that every organization must engage in.

In Kenya, the PPAD Act (2015), and procedure (2006) serves as a guide that provides guidelines and procurement procedure and supplier evaluation for public procurement entities to ensure judicious, economic and efficient use of state resources ensuring that public procurement is carried out in affair, transparent and non-discriminatory manner. Among other criteria, the Act 2005 states that tenderers and other suppliers should possess the necessary professional and technical qualifications and competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience in the procurement object and reputation; and the personnel to perform the procurement contract. In spite of all these, public institutions such as Universities have never realized the objective of supplier evaluation (PPOA, 2009).

It is critically crucial for firms to not only maintain links with current suppliers but also discover new suppliers in order to survive in the competitive global economy. Consideration for supplier evaluation attributes is an essential ingredient in any successful supply chain performance management. There is no universally accepted definition of supplier attributes. However, most scholars regard supplier evaluation attributes as the key characteristics or features that make suppliers suitable or not suitable for selection (Trent, 2007). In general, best suppliers are those that offer products or services, which match or exceed the expectations of the organizational. Thus, when searching for new suppliers firms are increasingly seeking out those that meet their technical and commercial requirements.

It is important to emphasize however, that choosing the right suppliers involves much more than scanning a series of price lists, and choices will depend on a wide range of issues (Ho *et al.*, 2010). Also, performance measurement depends of

qualitative and quantitative factors (Senvar *et al.*, 2014). Such factors not only include the worldly known factors like the price offered by the supplier, lead time, quality of items, the capacity of the supplier to respond flexibly to the company's requests and the supplier's geographical location (Ekici, 2013) but they also include warranties, production capability, technical capability, management capability, vendor reputation, financial position, labor relations and post-sales services (Kar & Pani, 2014).

1.1.1 Global Perspective on Supplier Evaluation

As global competition intensifies, manufactures outsource non-strategic activities to focus on core competences consequently many firms have reduced their supply base so they can more effectively manage relationship with strategic suppliers (Tully, 2011). The literature indicates that buying firms are developing cooperative, mutually beneficial relationship with suppliers and having suppliers as virtual extensions of their firm. Superior supplier capability often leads to exceptional quality and rapid integration of the latest technological breakthrough in the buying firms own products through ESI and its due to this that many developed countries are so keen with supplier evaluation (Medlin, 2013).

Globalization of a firm's sourcing activity means the establishment of long-term business relationships with often unfamiliar and unproven foreign suppliers. Owing to unfamiliarity and uncertainty involved in global sourcing, international supplier selection is risky and complicated. Besides, many factors influencing international supplier selection decisions are in conflict with one another. For instance, the low price of purchased materials from a certain foreign supplier can be offset by the firm's loose quality standards or chronic financial instability. On the other hand, the availability of more advanced technology from a foreign source can be undermined by the sourcing firm's high purchasing costs and excessive tariffs (Hokey, 2010).

Organizations globally are spending major percentage of their total costs on materials and supplies and necessitating a close relationship with high performing vendors who have been thoroughly evaluated in order to significantly reduce purchasing costs,

promote corporate competitiveness and to achieve quality output (Roodhooft & Konings, 2006; Sanayei *et al.,* 2008). Thus, in a multi-sourcing system, the management must choose and promote collaborative business partners, who are able to develop a long-term relationship with the company bolstering its goals and objectives (Ha & Krishnan, 2012) and at the same time doing away with the redundant and relatively inefficient ones. Hence, a robust and pragmatic technique for their efficiency measurement is required to reduce risk and to maximize the overall profit and customer satisfaction for the purchasing company (Zeydan, 2011).

In order to survive in today's competitive global market and to respond to customer's demands companies have no choice but to offer high-quality products and services. Production of high-quality products in turn requires selection of the appropriate suppliers by these companies. As a result, most global firms devote a considerable amount of time and effort to evaluation and selection of the "right" suppliers (Sharon & Wang 2014). The decision makers often resort to various supplier selection models to guide them through the decision-making process. Thus managers are giving a good portion of resources to supplier evaluation especially the developed countries. (Medlin, 2013)

1.1.2 State of Supplier Evaluation in Kenya

In Kenya, about 60% of government revenue is spent on procurement. The Kenyan government is a major buyer of goods and services in the country. This is does through various public institutions spread out all over the country. Its due to this that the government has put in place various procedures and processes to follow when conducting public procurement (Mukabi, 2014; PPAD, 2015). The Kenyan constitution, (2010) has various specific provisions relating to public procurement as a process as cited in article 227. The Public Procurement and Asset Disposal 2015, was enacted to streamline and speed up the operation of public institutions by making the public procurement process more transparent, ensure accountability and reduce wastage of public resources. As public institutions play a significant influence in value addition, creation of employment, demand for goods and services and

contribution to the national wealth. The procurement process must conform to the laid down regulations (Yusuf, 2014).

Before a supplier is evaluated by state owned institutes in Kenya prior performance is one of the key issues considered. Supplier selection is in accordance with the Public Procurement and Asset Disposal, 2015 and the Public Procurement and Disposal Regulations of 2006. Regulation 51 (1) (i) states that, "Contracts shall be awarded to the lowest evaluated bidder…" Other criteria include "compliance with specifications, technical acceptability, compliance with delivery schedules, and local servicing and availability of spare parts. "Quality and reliability are also supplier selection determinant for most Kenyan public institutions (Ibid, 2008).

However, many organizations in Kenya 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 thus many organisations together with their suppliers need to uphold this as supplier evaluation is very vital.

1.1.3 History of State Corporations

State Corporation is a legal entity created by the government to undertake commercial activities on its behalf. A state corporation (SC) has various meanings. First, it may be a corporate body established by or under an Act of parliament. Second, the president may by order establish a SC as a corporate body to perform the functions specified in the order. Third, it also represents a bank, a financial institution licensed under banking Act, other company incorporated under the company Act whose shares, or majority of whose shares are owned by the government or by another state corporation (Wamalwa, 2003). In order to remove ambiguity in definition and facilitate differentiated regulatory regime for

Government Owned Entities a "State Corporation" shall be an entity howsoever incorporated that is solely or majority owned by the government or its agents for commercial purposes (Government of Kenya, 2009). A commercial function for the purpose of this policy is a function the dynamics of which are governed by a competitive profit driven market and that can be performed commercially but also serves a strategic socio-economic purpose as from time to time defined by the President. State Corporations therefore shall include: Commercial State Corporations; and Commercial Corporations with strategic functions that are to be defined through the national development planning process these entities shall be incorporated and managed under the Companies Act Chapter 486.

The Kenya government forms state corporations to meet both commercial and social goals. They exist for various reasons including: to correct market failure, to exploit social and political objectives, provide education, health, redistribute income or develop marginal areas. At independence in 1963, parastatals were retooled by Sessional Paper no. 10 of 1965 into vehicles for the indigenization of the economy. Thus majority of key parastatals that exist today were established in the 1960s and 1970s. By 1995 there were 240 parastatals. Inventory of State Corporations as at 9 October 2013 as per the State Corporations Act, Chapter 446 of the Laws of Kenya shows that there are 262 state corporations but most have since been privatised now there are 187 state corporations.

1.2 Statement of the Problem

Despite the trend toward privatization over the past 20 years, state corporations (SCs) are still significant economic players (WB, 2014). Globally, SCs account for 20 percent of investment, 5 percent of employment, and up to 40 percent of output in some countries (Robinett, 2006; GoK, 2015). In developing countries, SCs produced about 15 percent of regional GDP in Africa (Kikeri & Kolo, 2006). In Kenya SCs have become a strong entity and useful engines to promote development (Njiru, 2008). The General Economic Services Sector which is a major contributor to GDP and employment creation in the economy in the last three years (2003-2005) contributed 20%, 21% and 23% respectively to GDP (RoK, 2013).

The performance of SCs however, has been a matter of on-going concern in an environment of resource scarcity. In 2011/12, eleven (11) commercial SCs made losses; this represents 21%, of all commercial oriented Government Owned Entities (RPTPR, 2013). Parliament Report (2015) indicated that SCs in Kenya have lost money to tune of Ksh. 2 billion in the financial year of 2015-2016 through fraudulent payment of suppliers. Transparent International (2013) that state corporations in Kenya are facing serious challenges especially in procurement where millions of shillings have been paid to unscrupulous supplier.

Despite the reforms and initiatives to reinvent the SCs in Kenya, many of them still perform poorly (RPTPR, 2013). Unlike in the past, SCs today are under strong pressure to improve their performance. (WB, 2014). Research has found that supplier evaluation could help organizations to remain viable and competitive. Studies have been undertaken on supplier selection and evaluation. Schiele (2007), established that extensive supplier audits significantly influence a firm's performance level. Timmons (2010), 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 performance of organizations. It is therefore very important for SCs in Kenya to adopt best practices such as supplier evaluation to enable the SCs sector realize full potential (RPTPR, 2013). Also Despite the compelling link between firm performance and supplier evaluation, few studies have addressed it. Thus this study sought to investigate influence of supplier evaluation on the performance of state corporations in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to establish the influence of supplier evaluation criteria on the performance of state corporations in Kenya.

1.3.2 Specific Objective

1. To establish the influence of supplier quality commitment on the performance of state corporations in Kenya.
2. To determine the influence of supplier competence on the performance of state corporations in Kenya.
3. To examine the influence of supplier financial viability on the performance of state corporations in Kenya.
4. To establish the influence of supplier capacity on the performance of state corporations in Kenya.

1.4 Research Hypothesis

The research was based on the following alternative hypothesis.

1. **Ha_1**: Supplier quality commitment has a positive significant influence on the performance of State Corporations in Kenya.
2. **Ha_2**: Supplier competence has a positive significant influence on the performance in State Corporations in Kenya.
3. **Ha_3**: Supplier financial viability has a positive significant influence on the performance of State Corporations in Kenya.
4. **Ha_4**: Supplier capacity has a positive significant influence on the performance of State Corporations in Kenya.

1.5 Significance of the Study

Supplier evaluation is an important activity that has gotten a lot of attention from large firms and academia. Thus the findings of this study will benefit the following;

1.5.1 Procurement practitioners

The findings of this study will benefit procurement practitioners who assist in achieving organizational procurement mandates. In addition to efficiently support programmes such as selecting certain goods or services as well as their suppliers in that they will be enlightened on how to evaluate suppliers and hence this will help

the procurement mangers of state corporations in decision making concerning supplier evaluation. It will also help them to develop benchmarks of best practices in the sector.

1.5.2 State corporations

State corporations accelerate economic social development, redress regional economic imbalances; Increase Kenyan Citizen's participation in the economy, Promote indigenous entrepreneurship, Promote foreign investments and so much more may use the study findings to improve their performance in supplier evaluation using supplier quality commitment, supplier competence, supplier financial viability and supplier capacity as some of the criteria in evaluating them. This research will also offer them 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

1.5.3 Research institutions

The findings of this study will form the basis on which future researchers could be built and most importantly the Practices of state corporations with respect to supplier evaluation; this study will contribute to the on-going research on supplier evaluation. Literature review reveals that this area of research is underexplored, despite some researchers have already pointed out its importance. Most of these studies have been conducted in developed countries. Hence, this study will contribute with an overview of security threats and strategies which will be adopted by state corporations and firm performance and 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

1.5.4 Policy makers

The government will use the study findings to make well informed decisions regarding supplier evaluation policies in all state corporations. The findings of this study will also help the government to review its policies on the current supplier evaluation and this will assist the government to come up with better supplier evaluation strategies in order to select the right supplier, hence value for money. It will also provide them with relevant facts and suggestions upon which to base their standards and performance benchmarks.

1.6 Scope of the study

This study focused on influence of supplier evaluation criteria on the performance of state corporations in Kenya. Supplier evaluation will assist state corporations in identifying and selecting the best supplier and hence get value for their money. Supplier evaluation criteria for this study were supplier quality commitment, supplier competence, supplier financial visibility and supplier capacity. This study focused on state corporations because according to Transparent International state corporations in Kenya are facing serious challenges especially in procurement where millions of shillings have been paid to ghost suppliers. Parliament Report indicated that state corporations in Kenya have lost close to Ksh.2 billion in the financial year of 2015-2016 through fraudulent payment of suppliers. Therefore the study covered all 187 state corporations in Kenya which are classified as purely and Strategic Commercial Corporations (54), Executive Agencies (62), Independent Regulatory Bodies (27), Research Institutions, Public Universities and Tertiary Education (44).

1.7 Limitations of the study

Since my study was on State Corporation which is perceived to be rampant with corruption issues information confidentiality was a huge issue for fear of respondents being victimised if they gave information that they thought was highly confidential. It had proved to be a major challenge but this was mitigated by really assuring the respondents that the information acquired was highly confidential and it would only be used for purpose of academic and no names would be revealed on the document.

The other limitation of the study was the wide scope of the study since it entailed studying all state corporations in Kenya. However this was curbed by adding more research assistants than had initially been sought. Lastly the limitation for this study was getting information from the supply chain/ procurement managers of prominent institutions as getting their valuable time to fill the questionnaires was proving to be difficult. However this was mitigated by exerting patience and also persuading them to fill as this would end up benefiting their organisation in a big and huge way and finally they did fill.

CHAPTERTWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives an outline of related works and researches done on the aspect of supplier evaluation on state corporation performance, influence of supplier quality on state corporation performance, influence of supplier competency on state corporation performance, supplier capacity on state corporation performance and supplier financial viability on state corporation performance. The study looked at theoretical review, conceptual framework, review of the literature, empirical review, critique of existing literature, research gap and the summary of literature review.

2.2 Theoretical Review

This section dwells on past theories, models and studies that are related to the concept of supplier evaluation and its influence specifically its influence of firm performance. A theory includes a set of basic assumptions and axioms as the foundation and the body of knowledge. A theory is composed of logically interrelated, empirically verifiable prepositions. Theoretical framework provides the research the lens to view the world clearly (Camp, 2008). This study was anchored on the following theories: Grey system theory, Multiple attribute utility theory, Fuzzy set theory and Rough set theory.

2.2.1 Grey System Theory

Grey system, originally developed by Deng (1982) on the basis of grey sets, is an important methodology for solving problems which involve uncertainties and aims at handling systems with unknown or incomplete information. Here, on the grounds of grey relations “grey” means poor, incomplete or uncertain information. Thus, the systems which lack information are referred to as Grey Systems (Deng, 1989). A grey system is a system which contains both known and uncertain unknowns (Zheng & Lewis, 1993). According to the theory, the information is classified into three

categories. This classification depends on the degree of information obtained. It is said to be white when it is completely certain; black when it is totally unknown and grey when it is insufficient (Yang *et al.,* 2014). The grey theory is a new and different approach which handles the uncertainty of a system. Supplier evaluation problem, sometimes it involves uncertainty and it can be equated as a grey system. The importance of the attributes and the ratings of attributes can be expressed in grey numbers which gives the flexibility to express decisions more easily. The theory of Grey System considers the following factors in deciding on the best supplier; existence of key factors important to the buyer, the numbers of factors are limited and countable and can be directly attributed to potential suppliers, in dependability of factors and factor expandability.

The theory Grey System applies the principle of series comparability to generate a grey relation. An evaluation matrix may be developed to facilitate this process. The best supplier is selected by choosing a goal and weighting the values of all evaluation factors based on the characteristics of materials to be sourced based on demand patterns (Zou, 2008). In a supplier selection environment, this theory can be applied evaluation of critical performance areas by the procuring entities. This theory is important to my study since the criteria of evaluating the performance of the supplier is very critical because if the performance of the supplier is good them such suppliers are chosen. And this theory gives criteria that can be used in evaluation. Thus state corporations can use this system when evaluating their suppliers.

2.2.2 Multiple Attribute Utility Theory

Supplier selection is a complex decision-making problem. The complexity stems from a multitude of quantitative and qualitative factors influencing supplier choices as well as the intrinsic difficulty of making numerous trade-offs among these factors (Hokey, 1994).One analytical approach often suggested for solving such complex problems is multiple attribute utility theory (MAUT) (Green & Wind, 2003) for various successful applications of MAUT. Multiple attribute utility theory (MAUT) enables the decision maker to structure a complex problem in the form of a simple hierarchy and to subjectively evaluate a large number of quantitative and qualitative

factors in the presence of risk and uncertainty. The major strength of MAUT is its ability to deal with both deterministic and stochastic decision environments (Zionts, 1992).

The application of MAUT to the complex problem usually involves the following steps as identified by (Edward & Newman, 2002). Identify the objectives or goals of the decision and define the problem scope, define a finite set of relevant attributes affecting the decision outcome and structure them into a hierarchical form called a "value tree", elicit preference information concerning the attributes from the decision maker(s) and determine the relative importance of the attributes, develop the decision maker's utility function by establishing functional relationships between the attributes and the utility scores. If these relationships are uncertain, the expected utility score for each attribute will be determined by using the appropriate type of probability distributions. Compute the aggregate (overall) utility score for each decision alternative and rank alternatives in terms of aggregate utility scores. Perform sensitivity analyses. The systematic nature of MAUT in tackling complex problems under conflicting multiple criteria makes MAUT especially suitable for selecting the most appropriate supplier. Thus state corporations can apply this theory in evaluating and rating suppliers in various attributes like quality, competence, financial, capacity, human resource and environmental issues. This will enable state corporations to make informed decisions regarding supplier evaluation.

2.2.3. Fuzzy Set Theory

In 1965, Zadeh introduced fuzzy set theory to cope with the imprecision and uncertainty which is inherent to human judgment in decision making processes through the use of linguistic terms and degrees of membership. Supplier assessment and selection are usually multi-criteria decision problems which, in actual business contexts, may have to be solved in the absence of precise information. In order to do this, the decision process of purchasing could be modelled and structured in a realistic way. A number of authors suggest using a fuzzy set theory (FST) to model uncertainty and imprecision in supplier choice situations. In short, FST offers a mathematically precise way of modelling vague preferences, for example setting

weights of performance scores on criteria. Simply stated, FST makes it possible to mathematically describe statements like: “criterion *X* should have a weight of around 0.8”. FST can be combined with other techniques to improve the quality of the final tools. (Purch, 2001)

In the real life, many decision problems have unclear and indefinite data; thus, models based on such information fail short to represent problems exactly and accurately. Therefore, a decision process must enable building models on unclear and indefinite information (Saremi, 2009). Zadeh formalized fuzzy sets theory based on the idea that the key elements of human thinking were not numerical but linguistic variables to handle problems with imprecise and incomplete data (Mao, 2009). Fuzzy sets theory builds a model of uncertainty in natural language related to human perceptions and subjective judgments, helps to interpret qualitative parameters, and expresses the uncertainty of language with appropriate mathematical tools (Knight, 2001). Fuzzy sets are the sets whose elements have degrees of membership.

Supply chain management and strategic sourcing are among the fastest growing areas of management. Most companies in production and manufacturing industries are seeking the most appropriate supplier to improve economic efficiency. Phenomenon of globalization and rapid development of logistics, at the same time, is in details presented in (Teh. Vjesn, 2011) thus this theory is very relevant to this study as it will help in addressing the difficult multi-criteria decision making problem that requires focusing on a number of factors in supplier evaluation.

2.2.4 Rough Set Theory

Rough set theory was proposed by Pawlak in 1982 as a method which classifies objects into similarity classes (clusters) containing objects that are indiscernible with respect to previous occurrences and knowledge. According to Bai and Sarkis (2009), rough set theory allows for distillation of a larger set of suppliers into a smaller set of candidate preferred suppliers, and eventually the selection of preferred supplier. Its application to supplier selection and decision making contributes through use of historical decisions integrating previous organizational knowledge and learning into

the latest decision process. The major advantage is that it can generate satisfactory outcomes using a relatively small amount of data or with great variability in factors (Li *et al.*, 2007).

As time progresses, organizations can further refine their decision making quality to either maintain some consistency and/or improve their decision process with further weighting and development of attributes that are salient for the organization's strategic direction. The final decision may be sensitive to the attributes that are used in the evaluation process. Practically, organizations that do not use the full complement of attributes to select suppliers or for outsourcing in a world where sustainability has gained significant importance by governments, communities, industry, customers, and markets, may have competitive disadvantage consequences (Bai & Sarkis, 2009).

2.3 Conceptual Framework

Conceptual frameworks, according to educational researcher Smyth (2004), are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aim. The independent variables were supplier quality commitments, competence, financial viability and capacity while the dependent variable was performance of state corporations in Kenya.

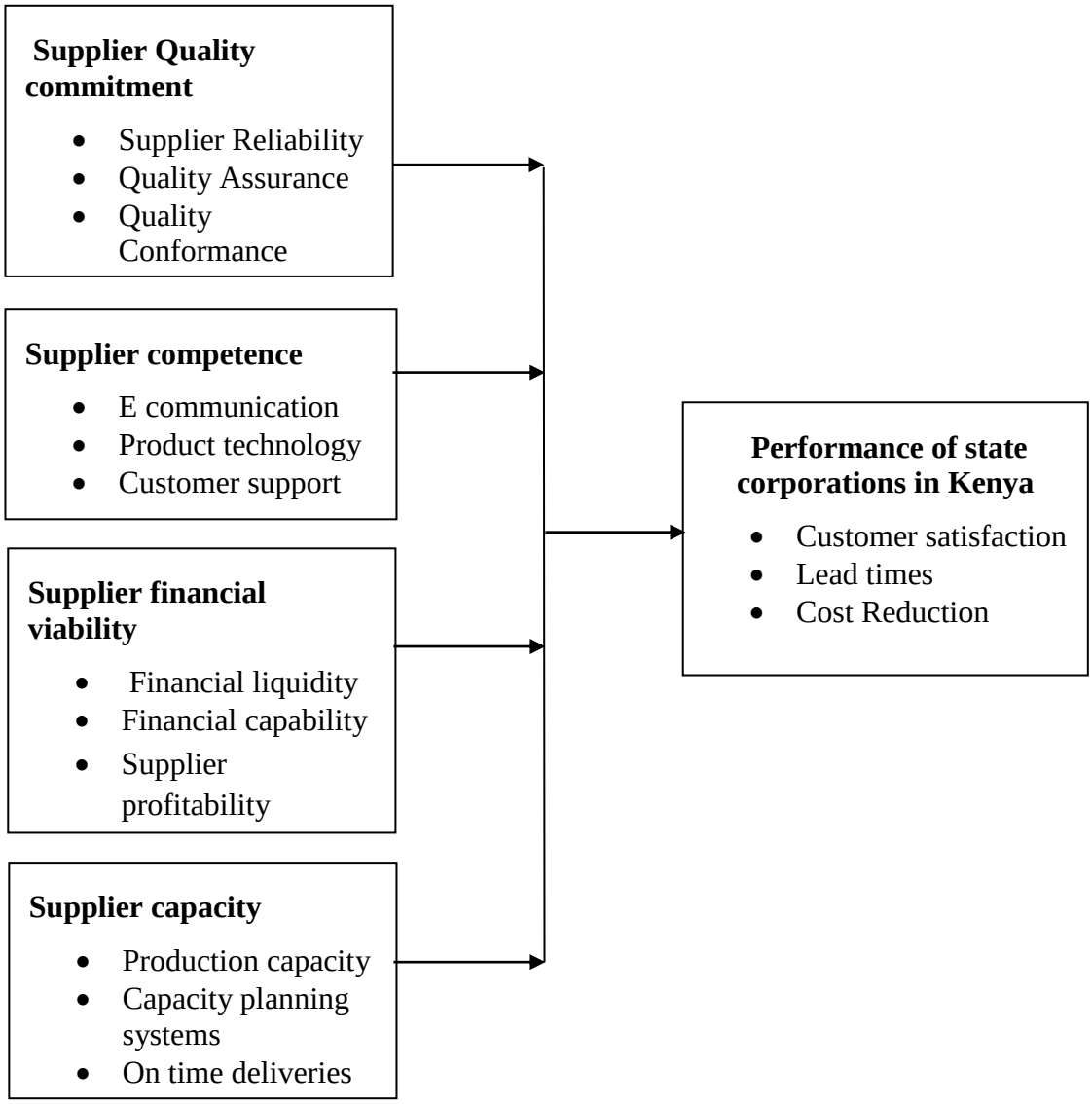

Figure 2.1: Conceptual framework

2.4 Review of Literature.

2.4.1 Supplier Quality Commitment

Quality assessment is a key factor of suppliers by which they can improve and maintain quality and delivery performance. It is very important for the company and suppliers. Quality and availability of product depends on this criterion. This factor

has been measured on the basis of the importance of the following quality dimensions: management commitment, product development of suppliers, and process improvement of suppliers, quality planning and quality assurance in supply chain, quality assessment in production, inspection and experimentation and quality staff of supplier (Beamon, 2009). The rejection rate of the product is defined in the terms of the number of parts rejected by the customers in fixed time period because of some quality problems. It also includes the defective parts detected in the incoming products. This encounters the issues like whether or not the frequent quality assessment of the parts has been done by the Supplier.

Parasuraman *et al*. (1988) propose a service quality model with five dimensions namely tangibility, reliability, responsiveness, assurance and empathy. Malfunctioning or failing within a specified time period. Assurance is defined as "the employees' knowledge and courtesy and the service provider's ability to inspire trust and confidence" (Bitner *et al*., 2006). According to Andaleeb and Conway (2006), assurance may not be so important relative to other industries where the risk is higher and the outcome of using the service is uncertain. Thus, for the Customer Satisfaction medical and healthcare industry, assurance is an important dimension that customers look at in assessing a hospital or a surgeon for an operation. The trust and confidence may be represented in the personnel who link the customer to the organization (Zeithaml *et al*., 2006).

Empathy is defined as the caring, individualized attention the firm provides its customer (Bitner *et al*., 2006). The customer is treated as if he is unique and special. There are several ways that empathy can be provided: knowing the customer's name, his preferences and his needs. Many small companies use this ability to provide customized services as a competitive advantage over the larger firms (Glemer *et al*., 2006). This dimension is also more suitable in industries where building relationships with customers ensures the firm's survival as opposed to "transaction marketing" (Andaleeb & Conway, 2006). Thus, in the context of quick service restaurant, empathy may not be so applicable where customers look for quick service and the queues at the counters are long.

Reliability is defined as "the ability to perform the promised service dependably and accurately" or "delivering on its promises" (Zeithaml *et al*., 2006).This dimension is critical as all customers want to deal with firms that keep their promises and this is generally implicitly communicated to the firm's customers. Some companies such as FedEx may make it an explicit service positioning. For the food & beverage industry, reliability can be Customer Satisfaction interpreted to mean fresh food delivered at the correct temperature and accurately the first time (Andaleeb & Conway, 2006). This study adopted some quality dimension attributes of Parasuraman *et al*. (1985) as shown in Table 2.1.

Table 2.1: The Five Service Quality Dimensions (Parasuraman et al., 1985)

Dimension	Description	Specific criteria that customers use
Reliability	Ability to perform service dependably and accurately	• Timeliness • Consistency • Accuracy
Assurance	Knowledge and courtesy of staff; ability to inspire trust and confidence	• staff competence • respect for customers • credibility • safety and security • confidentiality
Tangibility	Physical representation or image of the service	• physical facilities • equipment • technology • employee appearance • communication materials
Empathy	Caring and individualised attention to customers	• individualised attention • appropriate service for customer needs • clear and timely communication • access to information, staff and services
Responsiveness	Willingness to help customers and provide prompt services	• willingness to help • prompt attention to requests • problem resolution • flexibility • complaint handling

2.4.2 Supplier Competence

Suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. According Hofmann (2013), this is very important when the firm's strategy included development of a new product or technology or access to proprietary technology. These technical criteria insist company to shift into the global market place (Thompson, 2008).This factor has been measured on the basis of the importance of the following technical dimensions: compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, and maintenance activities of suppliers, plant layout and material. The production facilities and ability of the supplier to increase its capacity should also be taken into account to Judge the best one. The potential production capability of each supplier should be analyzed to meet a specified Production plan and also to develop a new product according to the market demand (Harps, 2000).

According to Srinivasan (2013) an organization's collective competence is decisive for its success and competitiveness. Competence development must therefore be viewed in both an organizational and an individual perspective, so that competence can be developed and added in such a way as to strengthen both the individual and the organization as a whole. He also says Competence is nothing but the level of usage of technology and skills in putting a new product, shop or workforce in to place. The major methods to effectively evaluate the competence and its areas are as follows Product and industrial technology; Evaluation of supplier's total product knowledge, functional systems, Research and development and the industrial processes gives the customer organization inputs on the supplier's capability in technology (Otto & Kotzab, 2003).

The internal competence in Product / Process development also should be considered in evaluating the Technology. This evaluation determines how quick a supplier will turnaround a new product development with the effective use of his systems and machines in manufacturing. Customer support and communication; Evaluation of supplier's ability to provide service and support and working relations, presence and

speed of response will help the evaluator ensure the customer focus of the supplier and finally Electronic communication; The suppliers' ability to use (send & receive) according to EDI-standard and implementation is also evaluated to ensure the supplier organization is abreast with the newer information technology developments (Thompson, 2008).

2.4.3 Supplier Financial Viability

According to the University of Leicester the financial failure of a key supplier could lead to an organisation suffering a significant financial loss, its operations and services being seriously compromised, and its reputation damaged thus it's important to the supplier's financial viability. Studies by Franklin and Rogers (2012), states that when evaluating the financial situation of a potential supplier as a part of the pre-qualification system. It's required that all suppliers have a sound financial structure and to have the financial abilities and competences to source and buy raw material and to follow market developments and trends.

An organisation is viable where given normal service condition, the organisation will produce sufficient inflow of resources to at least balance all operating costs, strategic outflow and forecasted risks to achieve the strategic plans and expectations of stakeholder in the short to medium term (Linda, 2009). The financial benchmark inherent in definition is set as at least balancing revenues within operating and capital costs and risks. In other words the assessment of viability is to determine the minimum point at which a balancing is achievable liquidly.

Liquidity is the term used to describe how easy it is to convert assets to cash. The most liquid asset, and what everything else is compared to, is cash. This is because it can always be used easily and immediately. It allows you to see if your organisation has current assets sufficient to meet its due debts with a margin of safety. Solvency, in finance or business, is the degree to which the current assets of an individual or entity exceed the current liabilities of that individual or entity. (Gaist & Paul, 2009) Solvency can also be described as the ability of a corporation to meet its long-term

fixed expenses and to accomplish long-term expansion and growth. This is best measured using the net liquid balance (NLB) formula.

In this formula solvency is calculated by adding cash and cash equivalents to short-term investments, then subtracting notes payable (Zietlow, John, Seidner & Alan, 2007).While profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities. According to Shane (2004), it's important to check how stable the supplier is in their finances so that firm does not end up stopping its operations thus poor firm performance.

Virginia and Kathy (2010) identifies various strategies of monitoring financial viability of the supplier One strategy is to develop a procedure for regularly assessing its vendors' financial health through the creation of financial viability profiles for mission-critical vendors and also gather financial information about its vendors from a number of sources. Sources include direct contacts with the vendor, information from vendor websites or publications, standard business reference sources, general and industry news items, library databases, and professional colleague and finally direct observations of a vendor's business practices and its relationship with the firms' vendor representative can give important insight into a vendor's financial health.

2.4.4 Supplier Capacity

The financial status of the supplier can be analysed by getting the information about the annual turnover of the Supplier and their financial structure based on the past history. The economic status of the supplier's country may affect the currency exchange rate, local price control and so Forth. This can result in higher hidden costs for international sourcing and into during the supplier selection. A good supplier should have a good financial base so that in case of delayed payments, supply is not hindered (Awino, 2002).

Continuous improvement and involvement by supplier in the early stage of a product life cycle can have important benefits for the purchasing company, but according to Weele (2005) it can be difficult in practice to apply and implement. The benefits can be e.g. improved product quality, reduction of product cost, reduction of development time and finally a reduction of development cost (Choy, Lee, & Lo, 2002). Several authors have suggested a category that focuses on supplier's R&D competence and supplier's willingness to be involved in buyer's product development (Barla, 2003; Erdem & Göcen, 2012). Criterions such as continuous improvement programs, Future technology development and R&D facilities, are commonly selected and suggested to evaluate suppliers within these aspects (Sen et al., 2008; Muralidharan *et al*., 2002).

According to Weele (2005), capacity is one of the key factors for any company's success and therefore should supplier be evaluated based on that criterion. R&D capacity criterion can't be found within the literature review, at least not with the same name. However, Barla (2003) suggests a criterion that is called Technological level and according to the author, this criterion should be a general assessment of the supplier's capability in terms of innovation and technology. Muralidharan *et al*. (2002) suggested a criterion called R&D facilities that should be evaluated based on subjective judgment. So even though the proposed criterion can't be found within the literature it is fair to assume that R&D competence is secretly included in the authors' suggestions within the product development category.

According to Lysons *et al.* (2008) a buyer should also assess a supplier's capacity in terms of its production capacity which entails its 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)

Evaluation of supplier's capability to fulfill long- term increased demand is another criteria for evaluation. The intention of selecting this criterion is to assess the supplier's capability to handle larger order volumes in the future (Vilhjálmur, 2013).The identification and selection of this criterion is supported by several sources. Dickson (1966) suggest a criterion called Production facility and capacity, Sen *et al*. (2008) offers criterions as Process capability, Process flexibility and uture manufacturing capabilities. An evaluation of this criterion is an assessment of several aspects such as supplier's current production rate and supplier's customer base (Choy *et al*., 2002). Therefore it is clear that this criterion is qualitative and should be based on the user's subjective judgment.

2.4.5 Performance of State Corporations in Kenya

Performance measurement in firms has received some attention during the past three decades (Bourne *et al*., 2003; Evans, 2004; Wouters & Sportel, 2005). According to Public Procurement and Disposal of Public Assets Authority (PPDA) (2008) performance is a function of effectiveness and efficiency that is defined as achievement of the set objectives and responsibilities from the perspective of the judging party. It has been suggested that this attention has been driven by dynamic changes in business environments (Simpson, & Power, 2005) and that these inevitable changes in turn triggered a performance measurement revolution performance of organisations has been defined by several authors differently. Kwai *et al*. (2004) looks at it from three perspectives; delivery times, consumer satisfaction and cost reduction other Performance measures used by most organizations include: Financial performance; profits, return on assets, return on investment, product market performance consist of sales, market share; shareholder return consists of total shareholder return and economic value added (Pierre, Devinney, Yip, & Gerry, 2009).

Subsequently, Hofmann, (2013) stated that performance evaluation is very important as a strategic tool and also provides means to achieve the objectives required, fulfilling a firm's mission/strategy statement and it also leads a firm to be competitive in the market. De Toni and Tonchia (2001) conceptually classified the performances of the operations into two broad categories of 'Cost performances' and 'Non - Cost performances. Non-financial performances include measures related to time, flexibility and quality. It is an important move towards a multi criteria approach, which can correspond to the need of holistic and strategic approach.

Nonmonetary units of measures generally measure the non-cost performances and as far as they influence the economic and financial performances (net income and profitability), the link with them cannot be calculated in precise manner as for the cost performances. Non-cost measures are divided into three categories, namely quality, time and flexibility related measures. Time element has strategic importance in business and hence'time' has to be used as a strategic metric in performance measurement (Stack *et al*., 2000). These authors argue that measuring, controlling and compressing time shall improve quality, reduce costs, improve responsiveness to customer orders, enhance delivery, increase productivity, increase market share and increase profits. This study contributes to the specific part of the performance measurement literature occupied with the behavioural implications of supplier evaluation.

According to the Republic of Kenya performance contract guideline (2014/2015) institutions are usually expected to select practical indicators in their performance contract that will ensure that performance is measured using international best practices and that performance targets are grown to the extent of placing the country on the global edge of competitiveness. Performance targets should be cascaded to all levels of staff through performance appraisal system. Performance indicators for the state corporations are usually classified under 6 categories. They consist of finance and stewardship, service delivery, non-financial, operations, dynamic or qualitative and corruption eradication. The specific performance measurement therefore used in this study includes customer satisfaction, shorter lead times and cost reduction.

Performance of state corporations are a relevant construct in strategic management research and frequently used as a dependent variable. Despite this relevance, there is hardly a consensus about its definition, dimensionality and measurement, what limits advances in research and understanding of the concept (Santos & Luiz, 2012). Many studies measure firm performance with a single indicator and represent this concept as unidimensional, even while admitting its multidimensionality (Glick, Washburn, & Miller, 2005). If several dimensions exist, a researcher should choose the dimensions most relevant to his or her research and judge the outcomes of this choice (Richard *et al.,* 2009). Ray, Barney and Muhanna (2004) states that warning against the difficulties of testing the resource based theory (RBT) using aggregated measures of performance and suggesting the use of indicators directly connected to the resources under analysis. As such, the strategic management field such as supply chain management clearly needs a clearer conceptualization of firm performance, discussions about its dimensions and better measurement efforts.

The definition of performance of state corporations and its measurement continues to challenge scholars due to its complexity; however scholars came up with several ways of measuring firm performance. According to Loecker and Goldberg (2013) performance at the firm level is measured in many different ways. Such ways include accounting measures of profitability, the Lerner index, sales per input and total factor productivity. While correlated, the various measures capture different aspects of firm performance, and exposure to a global market is not expected to affect these aspects in the same way. Penrose and Penrose, (2009) observed that performance can be assessed by financial performance namely, return on investment, growth of sales, profit, organization effectiveness, and business performance.

2.5 Empirical Literature Review

Supplier evaluation is a term used in business and refers to the process of evaluating and approving potential suppliers by quantitative assessment. The purpose of supplier evaluation is to ensure a portfolio of best in class suppliers is available for use. Supplier evaluation is also a process applied to current suppliers in order to measure and monitor their performance for the purposes of reducing costs, mitigating

risk and driving continuous improvement (Sherry, 2008). A study done by Rotich, Mutai and Okello (2016) concluded that that supplier quality commitment has significant effect on procurement performance of public universities campuses in Kericho County. Suppliers' level of quality commitment directly determines the level of quality in products and services obtained through procurement activities; product quality is just an aspect of procurement performance. In overall, achievement of product quality affects procurement performance though the effect is not significant and that supplier's financial ability has significant effect on procurement performance of public universities campuses in Kericho County. Suppliers' financial ability directly influences their ability to supply what the organization needs. However, the effect would be significant for organizations that deal with physical products.

A study by Kamenya (2012) on supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi, Kenya concluded that large food and beverage firms in Nairobi City County evaluate their suppliers using the criteria established: The financial stability of the supplier, quality issues, price factors, environmental friendliness of the supplier, production capacity of the supplier, employee capabilities of the supplier and preference and reservation. Environmental friendliness of the supplier, employ capabilities and price factors of the supplier are the most domineering criteria which mean that firms are keen on producing at minimum costs and the right volumes employing the right expertise to be able to satisfy the available market while being compliant to environmental issues. Supplier evaluation as one of the supply chain practices are able to reap from the benefits associated with it.

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

A study conducted by Le Dain (2007) on how to evaluate the suppliers' performance in collaborative design suggested that the model allows the customer to identify where the effort about the development of their suppliers must be focused. Thus, the results of our model of evaluation can provide throughout the project the zones of failure where improvements of the performance are necessary. In addition, the building of such a tool enables the supplier to clarify what the customer expects from the partner performances. Thus, from the front study, the supplier will be able to turn its efforts in order to answer the requirement of the customer as well as possible. The model is evolving throughout our meetings with our industrial partners. In order to test it within the framework of concrete projects, its implementation is soon expecting at two industrial partners. These tests will enable us to refine this model but also to check the relevance of the criteria in accordance with the type of the customer/supplier relationship.

A study which was carried out by Yaser (2011) on supplier evaluation and selection by using the analytic hierarchy process approach found out that the issues of supplier selection have attracted the interest of researchers since the 1960s, and research in this area has evolved. Continuing the previous works in supplier selection area, the work has successfully achieved its objectives. The main contribution of the work was the identification of the important criteria for the supplier selection process. Then a multi-criteria decision model for evaluating and selecting a supplier was developed. The model for supplier evaluation and selection was developed using the AHP method. The AHP model is assessing decision-makers to identify and evaluate the supplier selection. ABC Company could be satisfied when using the developed model that gives the price criterion unbiased ability to evaluate suppliers. Choosing the right supplier could give the right quantity and the right cost on the right timeline.

A study by Malonza (2012) on supplier performance evaluation and value chain analysis in Kenya airways limited conducted that there is limited scope to incorporate supplier performance evaluation in purchase decision of core products and even less for support products. The company has an evaluation policy for its suppliers and this is a key step to safety considerations in purchasing. Also the involvement of the Industrial safety team in supplier pre-qualification points to the

increased step towards best practices and this is a platform to advancing supplier performance evaluation practices into supply chain. The study concludes a low level practice of supplier performance evaluation in purchasing activity of both support and core products and the difficulty in implementing supplier performance evaluation with every employee who makes purchasing decisions, it can also be explained by the fact that the purchasers only take the initiatives themselves and then anchor the costs and delivery schedules with the managers in charge.

2.6 Critique of Existing Literature

Supplier selection should be done by experts who are knowledgeable and have expertise to conduct the exercise professionally. This is because supplier selection is a process vulnerable to personal and political interference especially in the public sector. Quality commitment must be considered a critical factor in supplier evaluation and supplier selection. The performance management criteria should focus on suppliers' financial capacity as one of the criteria for supplier selection. This is because suppliers' financial capability directly influences the ability of the suppliers to meet organizational needs.

There is need to communicate to all stakeholders who are directly involved in procurement operations on the need to consider financial capacity of suppliers. And with this I do agree that is very paramount that supplier evaluation be done by experts simply because suppliers are one of the most important people in an organization.

Supplier evaluation and selection is a complex and multiple criteria decision making problem that is affected by several tangible and intangible variables and not only limited to price, quality, performance, technical capability delivery etc. (Ozgen *et al*., 2008). From the purchasing perspective these attributes are needed to be fulfilled at satisfied level, if done correctly the compay is more able to fulfil its customers' needs. From the statement of supplier evaluation is a complex and multiple-criteria decision making problem to me is not correct. If supplier evaluation is taken with a serious consideration is one of the most efficient and simplest thing an

organisation can have .it's only complex because the necessary systems have not been put in place to ensure the simplicity of the whole process.

Studies show that supplier evaluation is a form of strategy that organisation takes to be on the competitive edge and I couldn't agree with them more. If an organisation masters the art of supplier evaluation it can be one way that they could be ahead of their competitors and as Malonza (2012) puts it the assessment often leads to the development of a performance improvement plan with the supplier, tied to quantifiable objectives and performance indicators. This process encourages the supplier to commit to results and makes their improvement efforts more transparent, with the aim of developing a lasting partnership. Evaluation categories include Reliability, Financial Stability, Quality of product or service, Competitive Pricing, On-time delivery, Customer Service and Communication is so true.

Supplier selection approach is changing since the market requirements have evolved Procurement department's traditional purchasing strategy considers price as the most important attribute. It also prefers a multi-supplier strategy assigning not more than 15% to 25% of the purchase orders to the same supplier, which provides the company more negotiating power, and protects the company against sudden price increases, or modifications in the delivery time (laura, 2011). However, new procurement management approaches are moving towards the usefulness of building up a stable relationship with specific suppliers closing strategic agreements bringing benefits of closer collaboration or finding synergies. Ansari and Modarress (2012 show that in Just In Time (JIT) environment, the majority of the companies prefer to follow a strategy of using as few as possible number of suppliers, and if possible use a single supplier and this is very true.

2.7. Research Gaps

Having reviewed the literature and the empirical studies that focus on supplier evaluation it has been very clear that the influence of supplier evaluation on state corporation performance has not been well developed. The lack of empirical work on SE thus presents a distinct knowledge gap. It means that we cannot clearly

understand how SE can be either achieved or, indeed, lost in practice. What is proposed in theory may not apply in practice (Benjamin *et al*., 2015).

A study by Ho *et al*. (2007) looked at Supplier Evaluation and Selection Criteria in the Construction Industry of Taiwan and Vietnam and found out that non-quantifiable criteria play a very important role in the selection process and that the construction companies of Taiwan and Vietnam have come to an agreement in most of the appraisal criteria which include: product quality, product availability, delivery reliability, product performance, product cost and service after sale. The study did not however look at the relationship between evaluation and overall firm performance. Other studies have focused on functions in the buying organization that are involved in the evaluation of supplier performance. One such study was in the electronics industry in the USA where it was observed that purchasing, engineering, and production/operations, R&D, and finance were the functions mostly involved in evaluation (Pearson & Ellram, 2005). The study however falls short of looking at the relationship between supplier evaluation and over all frim performance.

A Study by Thairu *et al*. (2012) looks into what the traders in Dagoreti market, in Kiambu, Kenya, thought about the concept of supplier appraisal and whether they practiced it. The study found out that the traders considered location of supplier, adequate facilities, use of information technology, financial strength, quality in operations and products, adequate production capacity, and skilled personnel, corporate social responsibility and good ethics and environmental friendliness as important supplier evaluation criteria. The study however did not look at the relationship between supplier appraisal and performance. The researchers recommended that further studies need to be carried out to find out the causal relationship between supplier evaluation and performance of the both corporate and private world, a gap that this study would wish to fill.

2.8. Summary of Literature Review

The literature illustrated that a comprehensive framework on the influence of supplier evaluation on state corporation performance. Through the literature review the researcher has established that there are research that have been done on supplier evaluation and this has been of great importance as it has assisted the researcher get secondary data on the research.A conceptual framework has been proposed to conceptualize or represents the relationships between variables in the study and shows the relationship graphically or diagrammatically. Some of the variables used are deemed to the best for the study are supplier quality commitment, supplier competence, supplier financial viability and supplier capacity. In each variable the study has also outlined the best sub variables also deemed to be best for this particular study.

The researcher has been able to come out clearly on the research gap and also several theories have been discussed. Which include; Grey system theory, multiple attribute utility theory, the lean supplier competence model and rough set theory. The relevance of each theory has been clearly illustrated as a theory is a set of systematic interrelated concepts, definitions, and propositions that are advanced to explain and predict phenomena (facts). That provides the research with the lens to view the world clearly.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology outlines the research design, population of the study, the methods to be used in the sample size and sampling techniques, the research instruments to be employed to collect data, pilot test, data processing and measurement of variables.

3.2 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2004).

Research design is a model or an action plan upon which the entire study is built; dictates the manner in which a study is conducted and provides the road map of a study in terms of the sample, data collection instruments and analysis procedure. Approaches on the other hand, are paradigms, research frameworks, which may be either quantitative or qualitative or both mixed approach (Creswell, 2003).The study adopted a cross sectional survey design to justify the relationship between the independent and dependent variables using both qualitative and quantitative techniques.

Quantitative approach also known as the scientific method has traditionally been considered as the traditional mode of inquiry in both research and evaluation. Quantitative approach places emphasis on methodology, procedure and statistical measures to test hypothesis and make predictions (Mugenda & Mugenda 2003). According to Berg (2001), qualitative research helps in analyzing information in a systematic way in order to come to some useful conclusions and recommendations on the social settings and the individuals who portray those characteristics.

Cross sectional survey is a method that involves the analysis of data collected from a population, or a representative subset, at one specific point in time Orodho (2003). The choice of this design is appropriate for this study since it utilizes a questionnaire as a tool of data collection. It was also appropriate for this study which extensively tested the analysis of the relationships between variables. It is also evident that the articles reviewed in this study are predominantly cross sectional studies focusing, for example Ismail (2014) in his study of e-procurement strategy on the performance of state corporations in Kenya, used cross-sectional research design to study the state corporations in Kenya.

3.2.1 Research Philosophy

The study was guided by an epistemological research philosophy. Research philosophy relates to the development of knowledge and the nature of that knowledge (Saunders, Lewis & Thornhill, 2009). There are three epistemological positions: realism, interpretivism and positivism (Saunders, Lewis & Thornhill, 2009). This study adopted a positivist research paradigm which is an epistemological position. Positivism is characterized by a belief in theory before research and statistical justification of conclusions from empirically testable hypothesis, the core of tenets of social science (Cooper & Schindler, 2011).

3.3 Target Population

A population is a group of objects, individuals or items from which samples are taken for measurement (Kombo & Tromp, 2006). Also according to Mugenda (2008), describes target population as a complete set of individual cases object with some common characteristics to which researcher want to generalize the result of the study. The target population of this study was the 187 State Corporations in Kenya (RPTPR, 2016) and the respondents of this study were supply chain/procurement managers of all the state corporations in Kenya who handle supplier evaluation process.

3.4 Census

This study used census approach. According to Israel and Teya (2014), under large populations this method may prove to be a very costly approach of sampling but the technique is very effective when dealing with small populations of 200 of even lesser. This study used the supply chain managers or procurement managers of the state corporations. Therefore, the sample size was 187 respondents. The table below indicates the approach that was taken in the study sampling technique. The number of the state corporations and the distribution were guided by the RPTPR (2013).

Table 3.1: Census distribution

State Corporations	**Number of firms**	**Percentage taken**
Purely and Strategic Commercial Corporations	54	28.7%
Executive Agencies	62	32.9%
Independent Regulatory Bodies	27	14.3%
Research Institutions, Public Universities and Tertiary Education	44	23.9%
Total	**187**	**100**

3.5 Data Collection Instruments

The researcher used open and closed questionnaire as a research instrument for this study. A questionnaire is a research instrument that gathers data over a large sample and its objective is to translate the research objectives into specific questions, and answers for each question provide the data for hypothesis testing. Questionnaires are the most commonly used when respondents can be reached and are willing to cooperate. Information can also be collected from a large sample that is able to write independently and hence it can be free from the interviewer bias. (Kombo & Tromp 2006) and as stated both closed and open ended questionnaire was used in this study,

this is because questionnaires are economical and time saving. Questionnaires are designed and given to respondent so that they could fill at their own convenient time.

3.6 Data Collection Procedure

The data was collected using a questionnaire. The researcher developed and prepared the data collection instrument for different targeted respondents. The questionnaires were administered to the respondents in order to collect the primary data through conversation between the researcher and the respondents (supply chain managers) and if having a conversation was not possible the researcher would wait for respondents to fill questionnaires.

3.7 Pilot Study

Pilot test as explained to Cooper and Schindler (2011) is conducted to detect weaknesses in design, instrumentation and to provide proxy data for selection of probability sample. The procedures used in pre-testing the questionnaire were identical to those that were used during the actual study or data collection. The number in the pre-test should be small, about 1% to 10% of the target population (Mugenda, 2003). In this study the questionnaire was tested on 10% of the entire sample size, which translated to 19 respondents. The questionnaire was pilot tested on 19 state corporations that were part of the target population and not in the sample size so as to get reliable responses. Supply chain managers or procurement managers filled in the questionnaire.

3.7.1 Reliability of Data Collection Instruments

According to Kombo & Tromp (2006) reliability is realized when one administers an instrument to a subject twice and gets the same score on the second administration as on the first. The study used Cronbach's alpha formula to test reliability.

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma_{Y_i}^2}{\sigma_X^2}\right)$$

Where K is the number of items, $\Sigma\sigma_k^2$ is the sum of the k item score variances, and σ_{total}^2 is the variance of scores on the total measurement. This helped to find out if the wordings were clear and if all the questions were interpreted the same way by the respondents and if there were any research bias and the Cronbach's alpha coefficient value should be above 0.7 (Cronbach,2004). Internal consistency- Cronbach's alpha Cronbach's alpha Internal consistency $\alpha \geq 0.9$ Excellent (high stakes testing) $0.7 \leq \alpha < 0.9$ Good (low stake testing) $0.6 \leq \alpha < 0.7$ Acceptable $0.5 \leq \alpha < 0.6$ Poor $\alpha < 0.5$ Unacceptable. Vincent Ochieng (2014) also used this in his study the role of supplier development in effectiveness of procurement function.

3.7.2 Validity of Data Collection Instruments

This adopted construct validity. Mugenda and Mugenda (2003) define validity as the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. Validity also refers to the degree to which an instrument measures what it purports to measure (Mugenda, 2008; Bryman, 2012). Validity therefore, is concerned with the meaningfulness of research components. Construct validity refers to how well you translated or transformed a concept, idea, or behavior (a construct) into a functioning and operating reality, the operationalization (Trochim, 2006).

This study also adopted content validity. Content validity is a qualitative type of validity where the domain of the concept is made clear and the analyst judges opine whether the measures fully represent the domain (Bollen, 1989). Drost (2012) posits that there are basically two ways of assessing content validity, that is, ask a number of questions about the instrument or test and/or ask the opinion of expert judges in the field. Exploratory Factor Analysis (EFA) can be used to validate hypothetical constructs by clustering those indicators or characteristics that appear to correlate highly with each other (Kane, 2006). Martin (2014) used the content validity in his study on determinants of supplier selection on the performance of public institutions in Kenya.

3.8 Data Analysis and Presentation

Data analysis refers to examining what has been collected in a survey or experiment and making deductions and inferences (Kombo, 2010). Qualitative and quantitative data from the questionnaires was coded and analysed. After collecting the data the researcher pre-processed it to eliminate unwanted and unusable data which would interfere with the analyses. The data collected was analysed using descriptive statistics in form of graphs and frequency tables. The frequencies were then converted into percentages for interpretations. Statistical analysis according to Gibilisco (2014) is a component of data analytics it involves collecting and scrutinizing every single data sample in a set of items from which samples can be drawn. Quantitative data was analysed in this study by calculating response rate with descriptive statistics such as mean and standard deviation using the statistical package for social sciences (SPSS) version 24 and Microsoft excel. The qualitative data was analysed using content analysis.

3.8.1 Statistical Measurement Model

Linear regression is a technique for analysing problems in which there are one or more independent variables that determine an outcome. The outcome is measured with a dichotomous variable (in which there are only two possible outcomes). The goal of Linear regression is to find the best fitting (yet biologically reasonable) model to describe the relationship between the dichotomous characteristic of interest (dependent variable =response or outcome variable) and a set of independent (predictor or explanatory) variables. Linear regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logit transformation of the probability of presence of the characteristic of interest (Isaac & Alphonse, 2013).

According to Mugenda and Mugenda (2003), linear regression analysis attempts to determine whether a group of variables together predict a given dependent variable and in this way, attempt to increase the accuracy of the estimate.

The general multiple regression model for this study was:

$$Y= \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where; Y= Performance of state corporations.

β_0=constant

β_i is the coefficient for Xi (i=1, 2,3,4)

X_1= supplier quality commitment

X_2=supplier competence

X_3=supplier financial viability

X_4=supplier capability

ε = error term

3.8.2 Measurement of Variables

Following rating scales were used in this study, that is, open-ended questions to allow the respondents to add information that might not be included in the closed-ended questions and Likert scale, developed by Rensis Likert, to examine how strongly subjects agree or disagree with a statement (Cooper & Schindler, 2011). In this study, Likert scales dominated the questionnaire. Chimi and Russel (2009) elucidated that Likert scale is everywhere in nearly all fields of scholarly and business research that it is used in a wide variety of circumstances: when the value sought is a belief, opinion or effect; when the value sought cannot be asked or answered definitely and with precision; and when the value sought is considered to be of such a sensitive nature that respondents would not answer except categorically in large ranges. The nature of the data that was collected in this study exhibited majority of these features and so the Likert scale was the most suitable. A Likert Scale can be evaluated easily through standard techniques like, factor analysis and logistic regression analysis (Montgomery, Peck & Vining, 2001). All the hypotheses

to test the relationship enhancers and supply chain resilience were measured by a linear regression model.

Supplier quality.is defined as the standard of something as measured against other things of a similar kind; the degree of excellence of something. In this study supplier quality will be measured by use of reliability, assurance and conformance. These measurements are modified and adopted from (parasuraman *et al*., 1988).

Supplier competence is the ability to do something successfully or efficiently. In this study, supplier competence is measured objectively and subjectively by use of E-communication, product technology and customer. These measurements are modified and adopted from (Srinivasan, 2013).

Supplier Financial viability is the ability of an entity to continue to achieve its operating objectives and fulfil its mission over the long term. It evaluates the risk that, over the life of a proposed contract, conducting financial viability assessments imposes a cost on tenderers and the entity; assessments should be commensurate with the scale, scope and relative risk of the proposed project (AGDF, 2014).

Supplier capacity is the maximum amount that suppliers can contain. This study will be using production capacity, capacity planning systems and on time deliveries as the measurement for supplier capacity (Wangwe, 2010).

Performance of state corporations is quantified through three essential performance metrics that enable reporting on how firms are doing: customer satisfaction, shorter lead times and cost reduction (Giunipero *et al*., 2015).

3.8.3 Statistical Test for Assumption of the Regression Model

This study also tested normality, heteroscedasticity, multicollinearity, linearity and autocorrelation. Normality is important in knowing the shape of the distribution and helps to predict dependent variables scores (Paul & Zhang, 2009). Heteroscedasticity means a situation in which the variance of the dependent variable varies across the data, as opposed to a situation where Ordinary Least Squares, OLS, makes the

assumption that $V(\varepsilon_j)=\sigma^2$for all j, meaning that the variance of the error term is constant (homoscedasticity). Heteroscedasticity complicates analysis because many methods in regression analysis are based on an assumption of equal variance (Park, 2008). Autocorrelation refers to the correlation of a time series with its own past and future values (Box & Jenkins, 1976). The autocorrelation function can be used to detect non-randomness in data and also to identify an appropriate time series model if the data are not random. Autocorrelation is essentially a correlation coefficient, but instead of correlation being between two different variables, the correlation is between two values of the same variable at times X_i and X_{i+k}.

Further, the study tested for multicollinearity. Multicollinearity is the undesirable situation where the correlations among the independent variables are strong (Martz, 2013). To test for multicollinearity, Variance Inflation Factor (VIF) was used. If no two independent variables are correlated, then all the VIFs will be 1. If VIF for one of the variables is around or greater than 5, there is multicollinearity associated with that variable. In this case one of these variables must be removed from the regression model (Cohen, Cohen, West & Aiken, 2003).

Ina addition, the study tested for linearity which means that two variables, "x" and "y," are related by a mathematical equation "y = cx," where "c" is any constant number. The importance of testing for linearity lies in the fact that many statistical methods require an assumption of linearity of data (i.e. the data was sampled from a population that relates the variables of interest in a linear fashion). This means that before using common methods like linear regression, tests for linearity must be performed (otherwise, the linear regression results cannot be accepted). SPSS, a powerful statistical software tool, allows researchers to observe with ease the possibility of the data arriving from a linear population. Through scatterplot testing methods, you can employ SPSS's functions to arrive at a test of linearity (Damon, 2010).

3.8.4 Explanatory Data Analysis

For the purposes of reduction of variables Exploratory Factor Analysis (EFA) was used which is a statistical approach for determining the correlation among the variables in a dataset. This type of analysis provides a factor structure (a grouping of variables based on strong correlations) In SPSS a convenient option is offered to check whether the sample is big enough: the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-test). The sample is adequate if the value of KMO is greater than 0.5. Furthermore, SPSS can calculate an anti-image matrix of covariance's and correlations. All elements on the diagonal of this matrix should be greater than 0.5 if the sample is adequate (Field, 2000). Also the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For factor analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05

3.8.5 Hypothesis Testing

H_1: Supplier quality commitment has a positive significant influence on the performance of State Corporations in Kenya.

Test for this research hypothesis; t- test was used and the corresponding P-value computed; if P-value < α (α is the level of significance) then the null hypothesis would be rejected and conclusion would be that supplier quality commitment positively influences the performance of state corporation at α- level of significance.

H_2: Supplier competence has a positive significant influence on the performance in State Corporations in Kenya.

Test for this research hypothesis; t- test was used and the corresponding P-value computed; if P-value < α (α is the level of significance) then the null hypothesis would be rejected and conclusion would be that supplier competence positively influences the performance of state corporation at α- level of significance.

H_3: Supplier financial viability has a positive significant influence on the performance of State Corporations in Kenya.

Test for this research hypothesis; t- test was used and the corresponding P-value computed; if P-value < α (α is the level of significance) then the null hypothesis would be rejected and conclusion would be that supplier financial viability positively influences the performance of state corporation at α- level of significance.

H_4: Supplier capacity has a positive significant influence on the performance of State Corporations in Kenya

Test for this research hypothesis; t- test was used and the correspond P-value computed; if P-value < α (α is the level of significance) then the null hypothesis would be rejected and conclusion will be that supplier capacity positively influences the performance of state corporation at α- level of significance.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter comprises of data analysis, findings and interpretation. Results are presented in tables and diagrams. The analysed data was arranged under themes that reflect the research objectives. The section also consists of pilot results, diagnostic results, and correlation and regression results. Further, the section presents the revised conceptual framework.

4.2 Response Rate

The number of questionnaires that were administered was 187. A total of 144 questionnaires were filled and returned. This represented an overall successful response rate of 77% as shown on Table 4.1. This agrees with Babbie, (2004) who asserted that return rates of 50% are acceptable to analyse and publish, 60% is good and 70% is very good. Based on these assertion 77% response rate is adequate for the study.

Table 4.1: Response Rate

Response	**Frequency**	**Percent**
Returned	144	77%
Unreturned	43	23%
Total	**187**	**100**

4.3 Demographic Information

This section analyses the demographic characteristics of the respondents. The section presents the descriptions of the respondents in terms of their gender, age bracket, education level, duration of work and number of years the organization has been in existence.

4.3.1 Gender of the Respondents

The respondents were requested to indicate their gender. Results in table 4.2 reveal that majority of 59% of the respondents were male while 41% were female. This implies that there is male dominance in the state corporations and especially, in the procurement department. Nonetheless, the 1/3 gender rule has been observed since the composition of either gender exceeds 33.3% which is the required minimum threshold according to the constitution of Kenya (2010).

Table 4.2: Gender of the Respondents

Gender	Frequency	Percent (%)
Male	85	59
Female	59	41
Total	**144**	**100**

4.3.2 Age of the Respondents

The respondents were asked to indicate their age bracket. Results in table 4.3 reveal that 44.4% of the respondents were in the age bracket of 31-40 years, 32.6% aged between 41-50 years, 17.4% aged between 18-30 years while only 5.6% aged above 50 years. The results imply that over 70% of the respondents are aged between 31-50 years. This age bracket represents relatively young and energetic employees and this may translate into improved performance of the firms.

Table 4.3: Age of the Respondents

Age	Frequency	Percent (%)
18 – 30 years	25	17.4
31 – 40 years	64	44.4
41-50 years	47	32.6
50 years and above	8	5.6
Total	**144**	**100**

4.3.3 Respondents' Level of Education

The respondents were asked to indicate their highest level of education. Results in table 4.4 reveal that 48.6% of the respondents had attained bachelor's degree, 33.3% had post graduate degree, 14.6% had certificate/diploma while 3.5% had doctorate. The results imply that all the respondents were knowledgeable and that their education level was sufficient for effective performance. The results further imply that all the employees were in a position to understand the operations of the firms, especially, the firms' relationship with suppliers.

Table 4.4: Respondents' Level of Education

Education Level	Frequency	Percent (%)
Certificate/diploma	21	14.6
Bachelors	70	48.6
Post Graduate	48	33.3
Doctorate	5	3.5
Total	**144**	**100**

4.3.4 Respondent's years of Experience

The respondents were asked to indicate the number of years they had worked in the procurement department. Results in table 4.5 reveal that majority (61.8%) of the respondents had worked in the procurement department for a period of 1-10 years, 18.8% indicated less than one year, 16% indicated 11-20 years while 3.5% indicated above 20 years. This implies that majority of the respondents have worked in the procurement department long enough and, therefore, possess adequate knowledge and skills of the supply chain process. The employees thus, have the potential to influence the performance of their firms.

Table 4.5: Respondent's years of Experience

Experience	Frequency	Percent (%)
less than one year	27	18.8
1 -10 years	89	61.8
11 – 20 years	23	16
Above 20 years	5	3.5
Total	**144**	**100**

4.3.5 Organizations' Period of Operation

The respondents were asked to indicate the number of years their organization has been in operation in Kenya. Results in table 4.6 reveal that majority (56.9%) of the respondents indicate more than 20 years, 16.7% indicated 16 to 20 years while 13.2% indicated 6 to 10 years and 11 to 15 years respectively. This implies that majority of the state corporations have been in operation long enough. As such, the firms are expected have sufficient information about their suppliers.

Table 4.6: Organizations' Period of Operation

Existence	Frequency	Percent
6 to 10 years	19	13.2
11 to 15 years	19	13.2
16 to 20 years	24	16.7
More than 20 years	82	56.9
Total	**144**	**100**

4.4 Diagnostic Tests

Prior to running a regression model pre-estimation and post estimation tests were conducted. The pre-estimation tests conducted in this case was the reliability test, linearity test and multicollinearity test while the post estimation tests were normality test, test for heteroscedasticity and test for autocorrelation. This is usually performed to avoid spurious regression results from being obtained.

4.4.1 Reliability Analysis

Reliability of the data collection instrument was evaluated through Cronbach Alpha which measures the internal consistency. Cronbach Alpha value is widely used to verify the reliability of the construct. The findings indicated that supplier quality commitment had a coefficient of 0.820; supplier competence had a coefficient of 0.808; supplier financial viability had a coefficient of 0.845; supplier capacity had a coefficient of 0.881; and performance of state corporations had a coefficient of 0.859. All variables depicted that the value of Cronbach's Alpha are above value of 0.7 thus the study was reliable (Castillio, 2009). This represented high level of reliability and on this basis it was supposed that scales used in this study are reliable to capture the variables.

Table 4.7: Reliability Coefficient

Variable	No of Items	Respondents	α=Alpha	Comment
Performance of State Corporation	10	19	0.859	Reliable
Supplier Quality Commitments	9	19	0.82	Reliable
Supplier Competence	7	19	0.808	Reliable
Supplier Financial Viability	7	19	0.845	Reliable
Supplier Capacity	7	19	0.881	Reliable

4.4.2 Tests of Linearity

The study used ANOVA test to test for linearity of the data and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis. The regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear (Osborne & Waters, 2002). Results presented in table 4.8 below reveal that the F statistic is significant at 0.05 significance level; hence the study concluded that there is a significant linear relationship between the dependent and the independent variables. As such, the data relating to the variables of this study was appropriate to use for regression analysis.

Table 4.8: ANOVA Test

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	62.196	4	15.549	84.679	0.000
Residual	25.523	165	.184		
Total	87.719	169			

4.4.3 Multi-Collinearity Test

Multicollinearity was assessed using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity. The results in Table 4.9 present variance inflation factor results and were found to be 1.67975 which is less than 10 and thus according to Field, (2009) indicate that there is no Multicollinearity.

Table 4.9: Multicollinearity results using VIF

Variables	Tolerance	VIF
Supplier Quality Commitment	.564	1.772
Supplier Competence	.564	1.772
Supplier Financial Viability	.493	2.027
Supplier Capacity	.871	1.148
Average VIF		**1.67975**

4.4.4 Test for Normality

The normality of data was tested using the Kolmogorov-Smirnov test and the Shapiro-Wilk test using the SPSS software. If the probability is greater than 0.05, then the data is normally distributed (Saunders & Thornhill, 2012). The results in Table 4.10 present test for normality results, which established that the data was not normally distributed since the probability value was less than 0.05. However, normality of the data was assumed since the number of observations was large.

Table 4.10: Test for Normality

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Performance of state corporations	0.16	144	0	0.843	144	0

a. Lilliefors Significance Correction

4.4.5 Heteroskedasticity Test

The OLS assumption states that the residuals should be Homoskedastic. The Modified Wald test was used in the study where the null hypothesis of the test is error terms have a constant variance (i.e. should be Homoskedastic). The results in the table 4.11 indicate that the error terms are homoskedastic, given that the p-value is more than the 5%.

Table 4.11: Modified Wald Test for Heteroskedasticity

Modified Wald Test for Heteroskedasticity
H0: Constant Variance (Homoscedasticity)
chi2 (79) = 3.68
Prob>chi^2 = 0.0549

4.4.6 Test for Autocorrelation

To establish whether or not the residual are serially correlated, Durbin-Watson test for autocorrelation was conducted. The Durbin Watson test reports a test statistics, with a value from 0 to 4, where: 2 denotes no autocorrelation; 0 to 2<2 denotes a positive autocorrelation; while >2 denotes a negative autocorrelation. The decision

rule is that test statistic values in the range of 1.5 to 2.5 are relatively normal. Values outside this range could be cause for concern (Field, 2009). The results are as indicated in Table 4.12 below and therefore the null hypothesis of no autocorrelation is accepted and that residuals are not auto correlated (Durbin- Watson statistic value=2.23).

Table 4.12: Autocorrelation Test

Durbin-Watson Test for autocorrelation
H0: no first-order autocorrelation
F(1, 30) = 2.864
Durbin-Watson = 2.23

4.5 Descriptive Analysis of the Study Variables

The purpose of descriptive statistics is to enable the researcher, to meaningfully describe a distribution of scores or measurements using indices or statistics. The type of statistics or indices used depends on the types of variables in the study and the scale of measurements. The study used mean average; percentages and deviations to present the study findings. The general objective of this study was to establish the influence of supplier evaluation on the performance of state corporations in Kenya. The study analysed descriptive statistics for the following observed variables: supplier quality commitment, supplier competence, supplier financial viability and supplier capacity. In addition, the study analysed descriptive statistics for performance of the state corporations.

4.5.1 Supplier Quality Commitment

The first objective of the study was to establish the influence of supplier quality commitment on the performance of state corporations in Kenya. Using a five-point likert scale, the study sought to know respondents' level of agreement on various statements relating to supplier quality commitment.

a) Supplier Reliability

The descriptive results on supplier reliability are presented in table 4.13. Results revealed that majority of the respondents who were 58.3% (27.10%+31.20%) agreed with the statement that suppliers are reliable in terms of timeliness, 31.2% were neutral to the statement while 10.40% disagreed with the statement. Further, 68.3% of the respondents agreed that suppliers are reliable in terms of consistency, 25.70% were neutral while 16% did not agree with the statement. In addition, 72.3% of the respondents agreed that suppliers are reliable in terms of accuracy, 21.50% were neutral while 6.3% disagreed that suppliers are reliable in terms of accuracy. Using a five-point scale likert mean, the overall mean of the responses was 3.70 which indicates that majority of the respondents agreed with the statements about supplier reliability. Additionally, the standard deviation of 0.94 indicates that the responses were varied. The results herein imply that suppliers are reliable.

Table 4.13: Supplier Reliability

Statements	Strongly disagreed	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers are reliable in terms of timeliness	0.00%	10.40%	31.20%	27.10%	31.20%	3.79	1.00
Suppliers are reliable in terms of consistency	2.80%	13.20%	25.70%	47.90%	10.40%	3.50	0.95
Suppliers are reliably in terms of accuracy	2.80%	3.50%	21.50%	54.90%	17.40%	3.81	0.86
Average						**3.70**	**0.94**

From the above table (4.13) it was found that state corporation supplier are indeed reliable in terms consistency and accuracy however quite a number of respondents seemed un aware of whether the supplies were reliable in terms of timeliness. Checking reliability of suppliers would assist in State Corporation improving their performance. These findings agree with the findings of Kitheka *et al.* (2013) that the impact of supplier quality commitment is significant for organizations with

documented strategies of supplier evaluation. He highlighted out that from supplier reliability, an organization may enjoy among other benefits reduced lead times, increased responsiveness to customers, customer loyalty, increased profitability, reduced opportunity cost from lost sales and effective communication between the organization suppliers as well as customers.

b) Quality Assurance

The descriptive results on supplier assurance are presented in table 4.14. Results revealed that 71.5% of the respondents agreed that our suppliers are credible, 18.8% were neutral while 9.7% did not agree that suppliers are credible. Further, 78.4% of the respondents agreed that our suppliers have respect for their customers, 18.8% were neutral while 2.8% disagreed. In addition, 75% of the respondents agreed that there is safety and security in our suppliers, 18.7% were neutral while 6.4% disagreed. Finally, 75% of the respondents agreed with the statement that our suppliers inspire trust where quality is concerned, 15.3% neither agreed nor disagreed while 9.7% failed to agree that suppliers inspire trust where quality is concerned.

Using a five-point scale likert mean, the overall mean of the responses was 3.86 which indicates that majority of the respondents agreed with the statements about supplier assurance. Additionally, the standard deviation of 0.81 indicates that the responses were varied. The results herein imply that there is assurance from the suppliers.

Table 4.14: Quality Assurance

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Our suppliers are credible	0.00%	9.70%	18.80%	61.10%	10.40%	3.72	0.78
Our suppliers have respect for their customers	0.00%	2.80%	18.80%	57.60%	20.80%	3.97	0.71
There is safety and security in our suppliers	2.80%	3.60%	18.70%	54.20%	20.80%	3.87	0.88
Our supplier inspire trust where quality is concerned.	0.00%	9.70%	15.30%	51.40%	23.60%	3.89	0.88
Average						**3.86**	**0.81**

This study findings mirror those of Beamon (2009), who observed that quality assessment is a key factor of suppliers by which can improve and maintain quality and delivery performance. The study measured quality based on the following dimensions; management commitment, product development of suppliers, and process improvement of suppliers, quality planning and quality assurance in supply chain, quality assessment in production, inspection and experimentation and quality staff of supplier

c) Quality Conformance

The descriptive results on supplier conformance are presented in table 4.15. Results revealed that 43.8% of the respondents agreed that suppliers are in conformance with the ISO standards, 36.8% were neutral while 19.4% disagreed that suppliers are in conformance with the ISO standards. Further, 64.6% of the respondents agreed that suppliers are in conformance to prompt services, 18.80% were neutral while 16.70% disagreed with the statement. Using a five-point scale likert mean, the overall mean

of the responses was 3.48 which indicates that majority of the respondents agreed with the statement about supplier conformance. Additionally, the standard deviation of 1.01 indicates that the responses were varied. The results herein imply that suppliers are in conformance.

Table 4.15: Quality Conformance

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers are in conformance with the ISO standards	6.90%	12.50%	36.80%	30.60%	13.20%	3.31	1.07
Suppliers are in conformance to prompt services	0.00%	16.70%	18.80%	47.20%	17.40%	3.65	0.96
Average						**3.48**	**1.01**

This mirrors the study done by Shiati, Kibet, and Musiega, (2014) their study established that quality of supplies had a positive and significant association on the performance of public institutions and therefore the study hypothesis that quality of supplies does not have significant effect on the performance of public institutions in Kakamega County was rejected. They went on and concluded that when conformance quality is enhanced in public institutions in Kakamega County, then product or services achieves customer satisfaction leading to improved performance.

Further, the respondents were asked to give their suggestion on the influence of supplier quality commitment on performance of state corporations in Kenya. Majority of the respondents who were 78% noted that supplier quality commitment results to better service delivery, 83% noted that supplier quality commitment results to quality output while 75% observed that supplier quality commitment results to adherence to international standards and timeliness in production and distribution of goods and services

4.5.2 Supplier Competence

The second objective of the study was to determine the influence of supplier competence on the performance of state corporations in Kenya. Using a five-point likert scale, the study sought to know respondents' level of agreement on various statements relating to supplier competence.

a) E-communication

The descriptive results on e-communication are presented in table 4.16. Results revealed that majority of the respondents who were 67.3% (47.2%+20.1%) agreed with the statement that suppliers' have the ability to use E-communication (send & receive) according to EDI-standard, 18.8% disagreed while 13.90% were neutral to the statement. Further, 57% of the respondents agreed that supplier organization is abreast with the newer information technology developments, however 43.1% of the respondents neither agreed not disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.64 which indicates that majority of the respondents agreed with the statement about e-communication. Additionally, the standard deviation of 0.98 indicates that the responses were varied. The results herein imply that suppliers apply e-communication.

Table 2.16: E-communication

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers' have the ability to use E-communication (send & receive) according to EDI-standard?	2.80%	16.00%	13.90%	47.20%	20.10%	3.66	1.06
Supplier organization is abreast with the newer information technology developments?	0.00%	12.50%	30.60%	40.30%	16.70%	3.61	0.91
Average						**3.64**	**0.98**

According to Otto and Kotzab (2003), the major methods to effectively evaluate the competence and its areas are as follows Product and industrial technology; Evaluation of supplier's total product knowledge, functional systems, research and development and the industrial processes gives the customer organization inputs on the supplier's capability in technology.

b) Product technology

The descriptive results on product technology are presented in table 4.17. Results revealed that majority of the respondents who were 67.3% agreed with the statement that the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing, 18.80% were neutral while 13.9% disagreed with the statement. Further, 63.1% of the respondents agreed that the supplies have internal competence in Product / Process development, 23.60% were neutral while 13.1% disagreed with the statement. Ina addition, 70.8% of the respondents agreed that suppliers have total product knowledge, functional systems, Research and development and the industrial processes, 16.70% were neutral while 12.4% disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.62 which indicates that majority of the respondents agreed with the statement about product technology. Additionally, the standard deviation of 0.95 indicates that the responses were varied. The results herein imply that suppliers apply product productivity.

Table 4.17: Product Technology

Statements	Strongly disagreed	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Does the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing?	0.00%	13.90%	18.80%	57.60%	9.70%	3.63	0.84
The supplies have internal competence in Product / Process development?	6.20%	6.90%	23.60%	56.20%	6.90%	3.51	0.95
Suppliers have total product knowledge, functional systems, Research and development and the industrial processes?	6.20%	6.20%	16.70%	50.00%	20.80%	3.73	1.06
Average						**3.62**	**0.95**

The study findings agree with those of Srinivasan (2013), an organization's collective competence is decisive for its success and competitiveness. Competence development must therefore be viewed in both an organizational and an individual perspective, so that competence can be developed and added in such a way as to strengthen both the individual and the organization as a whole.

c) Customer Support

The descriptive results on customer support are presented in table 4.18. The results revealed that majority of the respondents who were 54.9% agreed that suppliers never default the customer support agreement signed between them and your firm, 22.9% disagreed while 22.20% were neutral to the statement. Further, 60.5% of the

respondents agreed that suppliers provide their customer support with competence, 26.40% were neutral while 13.2% did not agreed that suppliers provide their customer support with competence.

Using a five-point scale likert mean, the overall mean of the responses was 3.53 which indicates that majority of the respondents agreed with the statement about customer support. Additionally, the standard deviation of 0.98 indicates that the responses were varied. The results herein imply that suppliers provide customer support.

Table 4.18: Customer Support

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers never default the customer support agreement signed between them and your firm?	2.80%	20.10%	22.20%	41.70%	13.20%	3.42	1.04
Suppliers provide their customer support with competence?	0.00%	13.20%	26.40%	43.80%	16.70%	3.64	0.91
Average						**3.53**	**0.98**

The findings of this study relate to those of Thompson (2008) who postulated that suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. This implies that suppliers with high competence are likely to be more efficient and to deliver quality products and services.

Further, the respondents were asked to give their suggestions on the influence of supplier competence on performance of state corporations. Majority of the respondents who were 89% observed that supplier competence leads to enhanced quality products and services. Further, 86% of the respondents noted that supplier competence leads to awareness of current innovations in product and services and avoidance of process disruption.

4.5.3 Supplier Financial Viability

The third objective of the study was to determine the influence of supplier financial viability on the performance of state corporations in Kenya. Using a five-point likert scale, the study sought to know respondents' level of agreement on various statements relating to supplier financial viability.

a) Financial Liquidity

The descriptive results on liquidity are presented in table 4.19. Results revealed that majority of the respondents who were 71.5% (44.4%+27.10%) agreed with the statement that the supplier companies have ability to pay off their short-term debt obligations, 19.4% were neutral while 9% disagreed with the statement. Further, 56.3% agreed that suppliers are able to convert their assets to cash, 27.1% were neutral while 16.7% disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.72 which indicates that majority of the respondents agreed with the statement about liquidity. Additionally, the standard deviation of 0.97 indicates that the responses were varied. The results herein imply that suppliers have adequate liquidity.

Table 4.19: Financial Liquidity

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Do the suppliers companies have ability to pay off its short-term debt obligations?	0.00%	9.00%	19.40%	44.40%	27.10%	3.90	0.91
Can they be able to convert its assets to cash?	3.50%	13.20%	27.10%	39.60%	16.70%	3.53	1.03
Average						**3.72**	**0.97**

The study findings mirror those of Shane (2004), who noted that it's important to check how stable the supplier is in their finances so that firm does not end up stopping its operations thus poor firm performance. Liquidity is therefore, a very important aspect in the success of an organization.

b) Financial Capability

The descriptive results on capability are presented in table 4.20. Results revealed that majority of the respondents who were 63.9% of the respondents agreed that company's has the ability to meet its total long term financial obligations, 33.3% were neutral while 2.8% disagreed with the statement. The mean of the responses was 3.82 which indicates that majority of the respondents agreed with the statements about capability. Additionally, the standard deviation of 0.79 indicates that the responses were varied. The results herein imply that suppliers have capability.

Table 4.20: Financial Capability

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Company's has the ability to meet its total long term financial obligations	0.00%	2.80%	33.30%	43.10%	20.80%	3.82	0.79

According to Virginia and Kathy (2010), there are various strategies of monitoring financial viability of the supplier. One strategy is to develop a procedure for regularly assessing its vendors' financial health through the creation of financial viability profiles for mission-critical vendors and also gather financial information about its vendors from a number of sources

c) Supplier Profitability

The descriptive results on profitability are presented in table 4.21. Results revealed that majority of the respondents who were 78.5% agreed that suppliers organization have the ability to earn profits as shown in their financial statements, 16% were neutral while 5.6% disagreed. Also, 58.3% of the respondents agreed that suppliers firm has strong, long term relationships with customers thus profit margins increase, 29.20% were neutral while 12.5% disagreed with the statement. Further, 74.3% agreed that supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins, 16% disagreed while 9.70% of the respondents were neutral to the statement. In addition, 67.4% of the respondents agreed that supplier's services are constantly reviewed, to find ways of improving client experience and reducing time and costs in completion, 29.20% were neutral while 3.5% disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.77 which indicates that majority of the respondents agreed with the statement about profitability. Additionally, the standard deviation of 0.88 indicates that the responses were varied. The results herein imply that suppliers are profitable.

Table 4.21: Supplier Profitability

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Do the supplier organization have the ability to earn profits as shown in their financial statements?	2.80%	2.80%	16.00%	61.10%	17.40%	3.88	0.83
Suppliers firm has strong, long term relationships with customers thus profit margins increase?	2.80%	9.70%	29.20%	34.00%	24.30%	3.67	1.04
Supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins?	0.00%	16.00%	9.70%	57.60%	16.70%	3.75	0.92
Supplier's services constantly reviewed, to find ways of improving client experience and reducing time and costs in completion?	0.00%	3.50%	29.20%	54.20%	13.20%	3.77	0.72
Average						**3.77**	**0.88**

The findings of this study are similar to those of Franklin and Rogers (2012) who stated that when evaluating the financial situation of a potential supplier as a part of the pre-qualification system. It's required that all suppliers have a sound financial structure and to have the financial abilities and competences to source and buy raw material and to follow market developments and trends.

Further, the respondents were asked to give their suggestions on the influence of supplier financial viability on performance of state corporations. Majority of the respondents who were 82% noted that prompt payments enable suppliers to replenish and improve on product and service delivery. Further, 85% observed that suppliers are also able to deliver goods and services on time. In addition, 77% noted that there should be an agreement on payment module to avoid slow delivery services.

4.5.4 Supplier Capacity

The fourth objective of the study was to establish the influence of supplier capacity on the performance of state corporations in Kenya. Using a five-point likert scale, the study sought to know respondents' level of agreement on various statements relating to supplier capacity.

a) Production Capacity

The descriptive results on production capacity are presented in table 4.22. Results revealed that majority of the respondents who were 68.7% (47.9%+20.8%) agreed with the statement that supplier maximum productive capacity in normal working period high, 25% were neutral while 6.3% disagreed with the statement. 36.1% agreed that supplier maximum productive capacity in normal working period low, 32.6% were neutral while 31.2% did not agree with the statement. Further, 36.8% agreed that supplier capacity is currently over committed, 32.6% were neutral to the statement while 30.6% disagreed with the statement. In addition, 36.8% of the respondents were neutral to the statement that supplier capacity is currently under committed, 35.5% agreed with it while 27.8% disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.27 which indicates that majority of the respondents agreed with the statement about profitability capacity. Additionally, the standard deviation of 1.07 indicates that the responses were varied. The results herein imply that suppliers have production capacity.

Table 4.22: Production Capacity

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Supplier maximum productive capacity in normal working period high	3.50%	2.80%	25.00%	47.90%	20.80%	3.80	0.92
Supplier maximum productive capacity in normal working period low	10.40%	20.80%	32.60%	29.90%	6.20%	3.01	1.09
Supplier capacity is currently over committed	16.70%	13.90%	32.60%	27.10%	9.70%	2.99	1.22
Supplier capacity is currently under committed	17.40%	10.40%	36.80%	29.90%	5.60%	2.96	1.15
Average						**3.27**	**1.07**

b) Capacity Planning Systems

The descriptive results on capacity planning systems are presented in table 4.23. Results revealed that majority of the respondents who were 59% agreed with the statement that our suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI). 24.3% were neutral while 16.6% disagreed with the statement. The mean of the responses was 3.55 which indicates that majority of the respondents agreed with the statements about capacity planning systems. Additionally, the standard deviation of 1.12 indicates that the responses were varied. The results herein imply that suppliers have capacity planning systems.

According to Semra (2003), Suppliers can improve capacity performance by adopting the modern technology and increasing total monthly capacity and by increasing the capacity using capacity planning systems goes a long way in improving organisations performance especially the performance of supply chain management. This agrees with this study in terms of if suppliers have capacity planning systems they will increase their total monthly capacity thus shorter lead-times thus improvement on performance of sate corporation.

Table 4.23: Capacity Planning Systems

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Our suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI)	6.90%	9.70%	24.30%	39.60%	19.40%	3.55	1.12

c) On Time Deliveries

The descriptive results on On time deliveries are presented in table 4.24. Results revealed that majority of the respondents who were 73.6% agreed that suppliers have an appropriate fleet management to ensure goods and services are delivered on time, 16% disagreed while 10.4% were neutral to the statement. Further, 53.4% agreed that suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays, 32.6% disagreed with the statement while 13.9% were neutral to the statement.

The mean of the responses was 3.58 which indicates that majority of the respondents agreed with the statements about on time deliveries. Additionally, the standard deviation of 1.12 indicates that the responses were varied. The results herein imply that suppliers observe time during delivery.

Table 4.24: On Time Deliveries

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers have an appropriate fleet management to ensure goods and services are delivered on time?	0.00%	16.00%	10.40%	47.20%	26.40%	3.84	0.99
Suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays	6.20%	26.40%	13.90%	33.30%	20.10%	3.35	1.24
Average						**3.58**	**1.12**

The findings of this study concur with those of Weele (2005) who noted that capacity is one of the key factors for any company's success and therefore suppliers should be evaluated based on the criterion. Further, Barla (2003) suggests a criterion that is called Technological level and according to the author, this criterion should be a general assessment of the supplier's capability in terms of innovation and technology.

Further, the respondents were asked to give their suggestions on the influence of supplier capacity on performance of state corporations. Majority of the respondents who were 78% noted that supplier capacity enables suppliers to hold enough stock ready for dispatch at any time an order is made. Also, 84% noted that supplier capacity is important for seamless services. In addition, 77% of the respondents posited that suppliers should be sensitized on the use of technology especially in tendering

4.5.5 Performance

The dependent variable in this study was the performance of state corporations in Kenya. Using a five-point likert scale, the study sought to know respondents' level of agreement on various statements relating to the performance of state corporations in Kenya.

a) Lead Times

The descriptive results on lead times are presented in table 4.25. Results revealed that majority of the respondents who were 65.9% (45.1%+20.8%) agreed with the statement that the suppliers always meet the set date of deliveries, 18.1% disagreed with the statement while 16% were neutral. Also, 64.6% agreed that the corporation strategies focus on reducing leadtime, 19.40% were neutral while 16% disagreed with the statement. Further, 78.5% agreed that suppliers are loyal when it comes to order delivery, 12.4% disagreed while 9% were neutral to the statement. In addition, 65.3% agreed that we respond to user department order in time, 19.4% were neutral while 15.3% disagreed with the statement.

The overall mean of the responses was 3.73 which indicates that majority of the respondents agreed with the statements about lead times. Additionally, the standard deviation of 1.06 indicates that the responses were varied. The results herein imply that lead times influence performance.

Kamenya (2012), concluded that firms that practice supplier evaluation as one of the supply chain practices are able to reap from the benefits associated with it. For instance reduction in number of complaints is associated with a firm's organizational culture, stock out levels reduce with embracing preference and most importantly enjoy lead time reductions or shorter lead times thus staying competitive in a fast-paced, need-it-now world.

Table 4.25: Lead Times

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
The suppliers always meet the set date of deliveries	2.80%	15.30%	16.00%	45.10%	20.80%	3.66	1.06
Our corporation strategies focus on reducing leadtime.	2.80%	13.20%	19.40%	43.80%	20.80%	3.67	1.04
Suppliers are loyal when it comes to order delivery	6.20%	6.20%	9.00%	64.60%	13.90%	3.74	0.99
We respond to user department order in time	2.80%	12.50%	19.40%	27.80%	37.50%	3.85	1.14
Average						**3.73**	**1.06**

b) Customer Satisfaction

The descriptive results on customer satisfaction are presented in table 4.26. Results revealed that majority of the respondents who were 81.9% agreed with the statement that our Company focuses on providing excellent customer service, 12.50% were neutral while 5.6% disagreed with the statement. Further, 82.6% of the respondents agreed that our customers are treated with courtesy, respect and service is responsive and meets the needs of customers, 9% were neutral while 8.4% disagreed with the statement. In addition, 69.5% agreed that our customers complaints have reduced significantly, 22.2% were neutral while 8.4% disagreed with the statement.

The overall mean of the responses was 4.03 which indicates that majority of the respondents agreed with the statements about customer satisfaction. Additionally, the standard deviation of 1.00 indicates that the responses were varied. The results herein imply that customer satisfaction influence performance.

Table 4.26: Customer Satisfaction

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
We focus on providing excellent customer service	2.80%	2.80%	12.50%	34.00%	47.90%	4.22	0.96
Our customers are treated with courtesy, respect and Service is responsive and meets the needs of customers.	2.80%	5.60%	9.00%	37.50%	45.10%	4.17	1.00
Our customers complaints have reduced significantly	2.80%	5.60%	22.20%	27.80%	41.70%	4.00	1.06
Average						**4.03**	**1.00**

This very well mirrors the study done by Kamenya (2012), who highlighted that supplier evaluation which is a management activity that helps in acquiring information so as to analyse supply relations helps firms to enjoy the benefit of customer satisfaction. This is similar to Lee and Billington, (1992) who posit that supply performance measurement is linked to customer satisfaction hence growth in sales (Lapide, 2013).

c) Cost Reduction

The descriptive results on cost reduction are presented in table 4.27. Results revealed that majority of the respondents who were 59% agreed with the statement that we have significant financial reserve to cover all potential needs due to cost reduction, 31.9% were neutral while 14.4% disagreed with the statement. Further, 69.4% agreed that procurement costs have reduced, 18.8% were neutral while 11.8% disagreed with the statement. In addition, 54.8% of the respondents agreed that overhead costs have reduced, 26.4% were neutral while 18.8% disagreed with the statement.

The overall mean of the responses was 3.74 which indicates that majority of the respondents agreed with the statements about cost reduction. Additionally, the

standard deviation of 1.08 indicates that the responses were varied. The results herein imply that cost reduction influence performance.

Table 4.27: Cost Reduction

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
We have significant financial reserve to cover all potential needs due to cost reduction	2.80%	6.20%	31.90%	34.70%	24.30%	3.72	0.99
Procurement costs have reduced	2.80%	9.00%	18.80%	31.20%	38.20%	3.93	1.09
Overhead costs have reduced	2.80%	16.00%	26.40%	34.00%	20.80%	3.54	1.08
Average						**3.74**	**1.08**

According to Yaser (2011), he found out that a company's development of financial condition can be directly influenced by the costs spent on procurement. Thence, cutting down procurement cost is one of the most considerable aspects for the purpose of improving the firm's performance. Semra (2009), says vendors offering a fair price provide the benefit of cost reduction to the buying firm which made him conclude that supplier evaluation ultimately has a positive impact on a firms financial performance and this echoes with this study.

The respondents were required to rate the performance improvement using the given indicators. Results were presented in Table 4.28. In terms of improvement in lead times, 65% of the respondents indicated above 60%, 20% indicated 41-60%, 12.3% indicated 21-40% while 2.7% indicated 1-20%. In terms of improvement in customer satisfaction, 56% of the respondents indicated above 60%, 33.4% indicated 41-60%, 6.9% indicated 21-40%, 2.6% indicated 1-20% while 1.1% indicated no influence. Lastly, in terms of improvement in cost reduction, 44.6% of the respondents indicated above 60%, 23.1% indicated 41-60%, 20.4% indicated 21-40%, 8% indicated 1-20% while 3.9% indicated no influence.

Table 4.28: Performance improvement

Statements	No influence	1-20%	21-40%	41-60%	Above 60%
Improvement in lead times	0.0%	2.7%	12.3%	20.0%	65.0%
Improvement in customer satisfaction	1.1%	2.6%	6.9%	33.4%	56.0%
Improvement in cost reduction	3.9%	8.0%	20.4%	23.1%	44.6%

Further, the respondents were asked to give other ways in which they can rate performance of their organization. Majority of the respondents who were 69% stated proper management of financial reserves and proper cash flow management, 76% stated that their company is proactive and innovative in improving supplier chain management while 81% stated use of credibility schedules and on time delivery and delivery of quality products.

4.6 Factor Analysis for Independent and Dependent Variables

Factor analysis was used to summarize data to be more manageable without losing any important information and therefore making it easier to test hypothesis (Field, 2009). According to Kaiser (1974), factor loading values that are greater than 0.4 should be accepted and values below 0.4 should lead to correction of more data to help researcher to determine the values to include. Values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great, and values above 0.9 are superb. The study therefore used sub constructs with values of 0.4 and above and dropped those with the values below 0.4.

4.6.1 Factor Analysis for Supplier Quality Commitment

Table 4.28 shows the set of sub variables under the variable supplier quality commitment that had factor loadings. All the sub variables except one had values more than 0.4 and therefore they were accepted. However, the sub variable whose value was less than 0.4 was dropped.

Table 4.28: Factor loading for the Variable Supplier Quality Commitment

Sub Variables	Factor Loading
Suppliers are reliable in terms of timeliness	0.712
Suppliers are reliable in terms of consistency	0.849
Suppliers are reliably in terms of accuracy	0.810
Our suppliers are credible	0.813
Our suppliers have respect for their customers	0.777
There is safety and security in our suppliers	0.796
Our supplier inspire trust were quality is concerned.	0.724
Suppliers are in conformance with the ISO standards	0.187
Suppliers are in conformance to prompt services	0.526

4.6.2 Factor Analysis for Supplier Competence

Table 4.29 shows the set of sub variables under the variable supplier competence that had factor loadings. All the sub variables had values more than 0.4 and therefore they were accepted. Therefore, none of the sub constructs was dropped.

Table 4.29: Factor loading for the Variable Supplier Competence

Sub Variables	Factor Loading
Suppliers' have the ability to use E-communication (send & receive) according to EDI-standard?	0.409
Supplier organization is abreast with the newer information technology developments?	0.737
Does the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing?	0.473
The supplies have internal competence in Product / Process development?	0.454
Suppliers have total product knowledge, functional systems, Research and development and the industrial processes?	0.597
Suppliers never default the customer support agreement signed between them and your firm?	0.592
Suppliers provide their customer support with competence?	0.498

4.6.3 Factor Analysis for Supplier Financial Viability

Table 4.30 shows the set of sub variables under the variable supplier financial viability that had factor loadings. All the sub variables except one had values more than 0.4. The sub-construct with value less than 0.4 was dropped and thus was not included in the regression model.

Table 4.30: Factor loading for the Variable Supplier Financial Viability

Sub Variables	Factor Loading
Do the suppliers companies have ability to pay off its short-term debt obligations?	0.647
Can they be able to convert its assets to cash?	0.599
Company's has the ability to meet its total long term financial obligations	0.761
Do the supplier organization have the ability to earn profits as shown in their financial statements?	0.841
Suppliers firm has strong, long term relationships with customers thus profit margins increase?	0.743
Supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins?	0.258
Supplier's services constantly reviewed, to find ways of improving client experience and reducing time and costs in completion?	0.487

4.6.4 Factor Analysis for Supplier Capacity

Table 4.31 shows the set of sub variables under the variable supplier capacity that had factor loadings. All the sub variables had values more than 0.4 and therefore they were accepted. This implies that none of the sub constructs was dropped.

Table 4.31: Factor loading for the variable Supplier Capacity

Sub Variables	Factor Loading
Supplier maximum productive capacity in normal working period high	0.769
Supplier maximum productive capacity in normal working period low	0.635
Supplier capacity is currently over committed	0.705
Supplier capacity is currently under committed	0.685
Our suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI)	0.706
Suppliers have an appropriate fleet management to ensure goods and services are delivered on time?	0.856
Suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays	0.72

4.6.5 Factor Analysis for Performance

Table 4.32 shows the set of sub variables under the variable performance of state corporations that had factor loadings. All the sub variables had values more than 0.4 and therefore they were accepted. This implies that none of the sub constructs was dropped.

Table 4.32: Factor Loading for the Variable Performance of State Corporations

Sub Variables	Factor Loading
Our suppliers always meet the set date of deliveries	0.599
Our corporation strategies focus on reducing lead times	0.498
Suppliers are loyal when it comes to order delivery	0.774
We respond to user department order in time	0.663
We focus on providing excellent customer service	0.594
Our customers are treated with courtesy, respect and Service is responsive and meets the needs of customers.	0.724
Our customers complaints have reduced significantly	0.785
We have significant financial reserve to cover all potential needs due to cost reduction	0.861
Procurement costs have reduced	0.812
Overhead costs have reduced	0.536

4.7 Hypothesis Testing

H_1: *Supplier quality commitment has a positive significant influence on the performance of State Corporations in Kenya*.

The results of the regression model between supplier quality commitment and performance of state corporations were used to test the hypothesis. The acceptance/rejection criterion was based on the t-test and the corresponding p value

of the regression model. A p-value less than 5% level of significance led to acceptance of the alternate hypothesis. Based on the findings, the study accepted the alternate hypothesis that supplier quality commitment has a positive significant influence on the performance of state corporations in Kenya. This is because the t-statistics value (t value>1.96), and the corresponding p value (p value<0.05).

The null hypothesis was rejected; therefore supplier quality commitment has a positive significant influence on the performance of State Corporations in Kenya.

H_2: *Supplier Competence has a positive significant influence on the performance of State Corporations in Kenya*.

The results of the regression model between supplier competence and performance of state corporations were used to test the hypothesis. The acceptance/rejection criterion was based on the t-test and the corresponding p value of the regression model. A p-value less than 5% level of significance led to acceptance of the alternate hypothesis. Based on the findings, the study accepted the alternate hypothesis that supplier competence has a positive significant influence on the performance of state corporations in Kenya. This is because the t-statistics value (t value>1.96), and the corresponding p value (p value<0.05).

The null hypothesis was rejected; therefore supplier competence has a positive significant influence on the performance of State Corporations in Kenya.

H_3: *Supplier financial viability has a positive significant influence on the performance of State Corporations in Kenya*

The results of the regression model between supplier financial viability and performance of state corporations were used to test the hypothesis. The acceptance/rejection criterion was based on the t-test and the corresponding p value of the regression model. A p-value less than 5% level of significance led to acceptance of the alternate hypothesis.

Based on the findings, the study accepted the alternate hypothesis that supplier financial viability has a positive significant influence on the performance of state corporations in Kenya. This is because the t-statistics value (t value>1.96), and the corresponding p value (p value<0.05).

The null hypothesis was rejected; therefore supplier financial viability has a positive significant influence on the performance of State Corporations in Kenya.

H_4: *Supplier Capacity has a positive significant influence on the performance of State Corporations in Kenya*.

The results of the regression model between supplier capacity and performance of state corporations were used to test the hypothesis. The acceptance/rejection criterion was based on the t-test and the corresponding p value of the regression model. A p-value less than 5% level of significance led to acceptance of the alternate hypothesis.

Based on the findings, the study accepted the alternate hypothesis that supplier capacity has a positive significant influence on the performance of state corporations in Kenya. This is because the t-statistics value (t value>1.96), and the corresponding p value (p value<0.05).

The null hypothesis was rejected; therefore supplier capacity has a positive significant influence on the performance of State Corporations in Kenya.

4.8 Summary of Hypotheses

This section presents the summary of hypotheses testing of the study variables. The rule of thumb was to reject the null hypothesis if the independent variable had a significant relationship with the dependent variable. The significance level was tested at a critical t-statistics of 1.96 and P value of 0.05.

Table 4.33: Hypothesis Testing and Discussion

Objective No	Objective	Hypothesis	Rule	P value/ t value	Comment
Objective 1	To establish the influence of supplier quality commitment on the performance of state corporations in Kenya	H_{01}: Supplier quality commitment has no positive significant influence on the performance of State Corporations in Kenya.	Reject H_{01} if p value for supplier quality commitment <0.05, Reject H_{01} if t value>1.96	0 8.66	The null hypothesis was rejected; therefore supplier quality commitment has a positive significant influence on the performance of State Corporations in Kenya.
Objective 2	To determine the influence of supplier competence on the performance of state corporations in Kenya	*Ho_2:* Supplier competence has no positive significant influence on the performance of State Corporations in Kenya.	Reject H_{01} if p value for supplier competence <0.05, Reject H_{01} if t value>1.96	0 10.578	The null hypothesis was rejected; therefore supplier competence has a positive significant influence on the performance of State Corporations in Kenya.
Objective 3	To establish the influence of supplier financial viability on the performance of state corporations in Kenya.	*Ho_3:* Supplier financial viability has no positive significant influence on the performance of State Corporations in Kenya.	Reject H_{01} if p value for supplier financial viability <0.05, Reject H_{01} if t value>1.96	0 13.031	The null hypothesis was rejected; therefore supplier financial viability has a positive significant influence on the performance of State Corporations in Kenya.
Objective 4	To establish the influence of supplier capacity on the performance of state corporations in Kenya.	*Ho_4:* Supplier capacity has no positive significant influence on the performance of State Corporations in Kenya.	Reject H_{01} if p value for supplier capacity <0.05, Reject H_{01} if t value>1.96	0 11.025	The null hypothesis was rejected; therefore supplier capacity has a positive significant influence on the performance of State Corporations in Kenya.

4.9 Inferential Analysis

4.9.1 Correlations Analysis

Correlation refers to the strength of an association between two variables. A strong or high correlation means that two or more variables have a strong relationship with each other while a weak or low, correlation means that the variables are hardly related. Correlation coefficient can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while a value of +1.00 represents a perfect positive correlation. A value of 0.00.means that there is no relationship between variables being tested (Orodho, 2003). The most widely used types of correlation coefficient is the Pearson Correlation. This analysis assumes that the two variables being analyzed are measured on at least interval scales.

4.9.1.1 Correlation Analysis for Supplier Quality Commitment

The correlation analysis results in table 4.34 revealed that there was a positive and a strong significant association between supplier quality commitment and performance of state corporations as supported by (r=0.588, p=0.000). This implied that both supplier quality commitment and performance of state corporations change in the same direction.

Table 4.34: Correlation Matrix

		Performance	Supplier Quality Commitment
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Supplier Quality Commitment	Pearson Correlation	.588**	1.000
	Sig. (2-tailed)	0.000	

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

4.9.1.2 Correlation Analysis for Supplier Competence

The correlation analysis results in table 4.35 revealed that there was a positive and a strong significant association between supplier competence and performance of state corporations as supported by (r=0.664, p=0.000). This implied that both supplier comeptence and performance of state corporations change in the same direction.

Table 4.35: Correlation Matrix

		Performance	Supplier Competence
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Supplier Competence	Pearson Correlation	.664**	1.000
	Sig. (2-tailed)	0.000	

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

4.9.1.3 Correlation Analysis for Supplier Financial Viability

The correlation analysis results in table 4.36 revealed that there was a positive and a strong significant association between supplier financial viability and performance of state corporations as supported by (r=0.738, p=0.000). This implied that both supplier financial viability and performance of state corporations change in the same direction.

Table 4.36: Correlation Matrix

		Performance	Supplier Financial Viability
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Supplier Financial Viability	Pearson Correlation	.738**	1.000
	Sig. (2-tailed)	0.000	
** Correlation is significant at the 0.01 level (2-tailed).			

4.9.1.4 Correlation Analysis for Supplier Capacity

The correlation analysis results in table 4.37 revealed that there was a positive and a strong significant association between supplier capacity and performance of state corporations as supported by (r=0.679, p=0.000). This implied that both supplier financial viability and performance of state corporations change in the same direction.

Table 4.37: Correlation Matrix

		Performance	Supplier Capacity
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Supplier Capacity	Pearson Correlation	.679**	1.000
	Sig. (2-tailed)	0.000	
** Correlation is significant at the 0.01 level (2-tailed).			

4.9.2 Exploratory Data Analysis

Exploratory Factor Analysis (EFA) is used when you have a large set of variables that you want to describe in simpler terms and you have no *a priori* ideas about which variables will cluster together (Tabachnick & Fidell, 2013). Exploratory Factor Analysis is normally done at the early stages of research in order to identify the variables that cluster together (Bordens & Abbot, 2014) and it provides the researcher with information about the number of factors that best represents the data (Hair, Black & Babin, 2010).

4.9.2.1 Supplier Quality Commitment

To test for EFA, two statistical tests were performed to check suitability of data for structure detection, that is, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy indicates the proportion of variance in your variables that might be caused by underlying factors, whereby high values (close to 1.0) generally indicate that a factor analysis may be useful with your data (Pallant, 2010).

Bartlett's Test of Sphericity tests the hypothesis that one's correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values ($p < 0.05$) of the significance level indicate that a factor analysis may be useful with one's data. Table 4.38 indicates the results of the test for suitability of structure detection. It is evident that KMO value is 0.548 which is close to 1. This means factor analysis is suitable. With $p < 0.05$ in the Bartlett's Test of Sphericity, this is an indication of suitability of data for structure detection.

Table 4.38: Results of the test for Suitability of Structure Detection

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.548
Bartlett's Test of Sphericity	Approx. Chi-Square	571.676
	Df	36
	Sig.	0.000

4.9.2.2 Supplier Competence

Table 4.39 indicates the results of the test for suitability of data for structure detection. It is evident that KMO value is 0.588which is close to 1. This means factor analysis is suitable. With $p < 0.05$ in the Bartlett's Test of Sphericity, this is an indication of suitability of data for structure detection.

Table 4.39: Results of the test for Suitability of Structure Detection

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.588
Bartlett's Test of Sphericity	Approx. Chi-Square	213.182
	Df	21
	Sig.	.000

4.9.2.3 Supplier Financial Viability

Table 4.40 indicates the results of the test for suitability of data for structure detection. It is evident that KMO value is 0.669 which is close to 1. This means factor analysis is suitable. With $p < 0.05$ in the Bartlett's Test of Sphericity, this is an indication of suitability of data for structure detection.

Table 4.40: Results of the test for Suitability of Structure Detection

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.669
Bartlett's Test of Sphericity	Approx. Chi-Square	323.145
	df	21
	Sig.	.000

4.9.2.4 Supplier Capacity

Table 4.41 indicates the results of the test for suitability of structure detection. It is evident that KMO value is 0.538 which is close to 1. This means factor analysis is suitable. With $p < 0.05$ in the Bartlett's Test of Sphericity, this is an indication of suitability of data for structure detection.

Table 4.41: Results of the test for Suitability of Structure Detection

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.538
Bartlett's Test of Sphericity	Approx. Chi-Square	615.601
	df	55
	Sig.	.000

4.9.2.5 Performance

Table 4.42 indicates the results of the test for suitability of structure detection. It is evident that KMO value is 0.725 which is close to 1. This means factor analysis is suitable. With $p < 0.05$ in the Bartlett's Test of Sphericity, this is an indication of suitability of data for structure detection.

Table 4.42: Results of the test for Suitability of Structure Detection

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	676.432
	df	15
	Sig.	.000

4.9.3 Regression Analysis

Regression analysis is a statistical tool for the investigation of the relationship between variables. Usually, researcher seeks to maintain the causal effect of one variable upon another. Regression analysis allows you to model, examine and explore spatial relationship, and can help explain the factors behind observed spatial patterns. Regression analysis is also used for prediction.

4.9.3.1 Regression Analysis for Variable Supplier Quality Commitment

The study sought to establish the relationship between supplier quality commitment and performance of state corporations. An ordinary least square regression model was used. The results of the model summary are given in Table 4.42. The findings revealed that supplier quality commitment explained 34.6% of the total variations in performance of state corporations in Kenya.

Table 4.43 below provides the results on the analysis of variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 74.994 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The results imply that supplier quality commitment is a good predictor of firm performance.

Table 4.44 presents the regression of coefficients results. The findings show that there is a positive and significant relationship between supplier quality commitment

and performance of state corporations in Kenya as supported by a p value of 0.000 and a beta coefficient of (0.793). This implies that an increase in supplier quality commitment by 1 unit would increase the performance of state corporations by 0.793 units.

The specific model;

$Y= \beta_0+ \beta_1 X_1 +e$

State Corporations Performance = 0.834+0.793Supplier Quality Management

This study findings mirror those of Beamon (2009), who observed that quality assessment is a key factor of suppliers by which can improve and maintain quality and delivery performance. The study measured quality based on the following dimensions; management commitment, product development of suppliers, and process improvement of suppliers, quality planning and quality assurance in supply chain, quality assessment in production, inspection and

Table 4.42: Model Fitness

Indicator	Coefficient
R	0.588
R Square	**0.346**
Adjusted R Square	0.341
Std. Error of the Estimate	0.6358059

Table 4.43: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	30.316	1	30.316	74.993	0.000
Residual	57.403	142	.404		
Total	87.719	143			

Table 4.44: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	.834	.352	2.370	.019
Supplier Quality Commitment	.793	.092	8.660	.000

4.9.3.2 Regression Analysis for Variable Supplier Competence

The study sought to establish the relationship between supplier competence and performance of state corporations. An ordinary least square regression model was used. The results of the model summary are given in Table 4.45. The findings revealed that supplier competence explained 44.1 % of the total variations in performance of state corporations in Kenya.

Table 4.46 below provides the results on the analysis of variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 111.904 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The results imply that supplier competence is a good predictor of firm performance.

Table 4.47 presents the regression of coefficients results. The findings show that there is a positive and significant relationship between supplier competence and performance of state corporations in Kenya as supported by a p value of 0.000 and a beta coefficient of (0.903). This implies that an increase in supplier competence by 1 unit would increase the performance of state corporations by 0.903units.

The specific model;

$Y= \beta_0+ \beta_2 X_2 +e$

State Corporations Performance = 0.559+0.903Supplier Competence

The findings of this study relate to those of Thompson (2008) who postulated that suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. This implies that suppliers with high competence are likely to be more efficient and to deliver quality products and services.

Table 4.45: Model Fitness

Indicator	Coefficient
R	0.664
R Square	**0.441**
Adjusted R Square	0.437
Std. Error of the Estimate	0.5877777

Table 4.46: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	38.661	1	38.661	111.904	0.000
Residual	49.059	142	.345		
Total	87.719	143			

Table 4.47: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	.559	.315	1.778	.078
Supplier Competence	.903	.085	10.578	.000

4.9.3.3 Regression Analysis for Variable Supplier Viability

The study sought to establish the relationship between supplier financial viability and performance of state corporations. An ordinary least square regression model was used. The results of the model summary are given in Table 4.48. The findings revealed that supplier financial viability explained 54.5% of the total variations in performance of state corporations in Kenya.

Table 4.49 below provides the results on the analysis of variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 169.804 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The results imply that supplier financial viability is a good predictor of firm performance.

Table 4.50 presents the regression of coefficients results. The findings show that there is a positive and significant relationship between supplier financial viability and performance of state corporations in Kenya as supported by a p value of 0.000 and a beta coefficient of (0.920). This implies that an increase in supplier financial viability by 1 unit would increase the performance of state corporations by 0.920 units.

The specific model;

$Y= \beta_0+ \beta_3 X_3+e$

State Corporations Performance = 0.396+0.920 Supplier Financial Viability

The findings of this study are similar to those of Franklin and Rogers (2012) who stated that when evaluating the financial situation of a potential supplier as a part of the pre-qualification system. It's required that all suppliers have a sound financial structure and to have the financial abilities and competences to source and buy raw material and to follow market developments and trends.

Table 4.48: Model Fitness

Indicator	Coefficient
R	0.738
R Square	**0.545**
Adjusted R Square	0.541
Std. Error of the Estimate	0.5304042

Table 4.49: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	47.771	1	47.771	169.804	0.000
Residual	39.949	142	.281		
Total	87.719	143			

Table 4.50: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	.396	.269	1.475	.143
Supplier Financial Viability	.920	.071	13.031	.000

4.9.3.4 Regression Analysis for Variable Supplier Capacity

The study sought to establish the relationship between supplier capacity and performance of state corporations. An ordinary least square regression model was used. The results of the model summary are given in Table 4.51. The findings revealed that supplier financial viability explained 46.1% of the total variations in performance of state corporations in Kenya.

Table 4.52 below provides the results on the analysis of variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 121.550 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The results imply that supplier financial viability is a good predictor of firm performance.

Table 4.53 presents the regression of coefficients results. The findings show that there is a positive and significant relationship between supplier financial viability and performance of state corporations in Kenya as supported by a p value of 0.000 and a

beta coefficient of (0.591). This implies that an increase in supplier financial viability by 1 unit would increase the performance of state corporations by 0.591 units.

The specific model;

$Y= \beta_0+ \beta_4 X_4+e$

State Corporations Performance = 1.012+0.811Supplier Capacity

The findings of this study concur with those of Weele (2005) who noted that capacity is one of the key factors for any company's success and therefore suppliers should be evaluated based on the criterion. Further, Barla (2003) suggests a criterion that is called Technological level and according to the author, this criterion should be a general assessment of the supplier's capability in terms of innovation and technology.

Table 4.51: Model Fitness

Indicator	Coefficient
R	0.679
R Square	**0.461**
Adjusted R Square	0.457
Std. Error of the Estimate	0.5769204

Table 4.52: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	40.457	1	40.457	121.550	0.000
Residual	47.263	142	.333		
Total	87.719	143			

Table 4.53: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	1.012	.262	3.868	.000
Supplier Capacity	0.811	.074	11.025	.000

4.10 Overall Regression Analysis

The results presented in table 4.54 present the fitness of model used of the regression model in explaining the study phenomena. Supplier quality commitment, supplier competence, supplier financial viability and supplier capacity were found to be satisfactory variables in influencing the performance of state corporations in Kenya. This is supported by coefficient of determination also known as the R square of 71%. This means that supplier quality commitment, supplier competence, supplier financial viability and supplier capacity explain 71% of the variations in the dependent variable which is performance of state corporations in Kenya. The results further imply that the model applied to link the relationship of the variables was satisfactory.

Table 4.53 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000 which is lesser than the critical p value of 0.05. Further, the results imply that the independent variables are good predictors of firm performance. This was supported by an F statistic of 84.679 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

Regression of coefficients results in table 4.56 shows that supplier quality commitment has a positive and significant influence on performance of state corporations (r=0.071, p=0.001). The table further indicates that supplier competence has a positive and significant influence on performance of state corporations (r=0.136, p=0.000). It was further established that supplier financial viability has a positive and significant influence on performance of state corporations (r=0.583,

p=0.000). Finally, supplier capacity was found to have a positive and significant influence on performance of state corporations (r=0.469, p=0.000).

Therefore, the overall regression results imply that there is a positive and significant relationship between supplier evaluation and performance of state corporations in Kenya. As such, an improvement in supplier evaluation would lead to a corresponding improvement in performance of state corporations.

The optimal model was;

$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Performance of State Corporations $= -0.744 + 0.071X_1 + 0.136X_2 + 0.583X_3 + 0.469X_4$

Where; Y= Performance of state corporations.

β_0=constant

X_1= supplier quality commitment

X_2=supplier competence

X_3=supplier financial viability

X_4=supplier capability

Table 4.54: Model of Fitness

Indicator	Coefficient
R	0.842
R Square	**0.709**
Adjusted R Square	0.701
Std. Error of the Estimate	0.42851

Table 4.55: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	62.196	4	15.549	84.679	0.000
Residual	25.523	165	.184		
Total	87.719	169			

Table 4.56: Regression of coefficients

Variable	B	Std. Error	t	sig
(Constant)	-0.744	0.272	-2.738	0.007
Supplier Quality Commitment	0.071	0.018	3.834	0.001
Supplier Competence	0.136	0.030	4.481	0.000
Supplier Financial Viability	0.583	0.087	6.729	0.000
Supplier Capacity	0.469	0.069	6.775	0.000

4.11 Revised Conceptual Framework

Based on the results in Table 4.54 a model optimization was conducted. The aim of model optimization was to guide in derivation of the final model (revised conceptual framework) where only the significant variables are included for objectivity. Results in Table 4.54 were arrived at through running multiple regressions. No variable was dropped since all the variables were significant. The variables were arranged in order of significance as follows; supplier financial viability, supplier capacity, supplier competence and supplier quality commitment. Supplier financial viability had a beta of 0.583, supplier capacity a beta of 0.469, supplier competence a beta of 0.136 and supplier quality competence a beta of 0.071

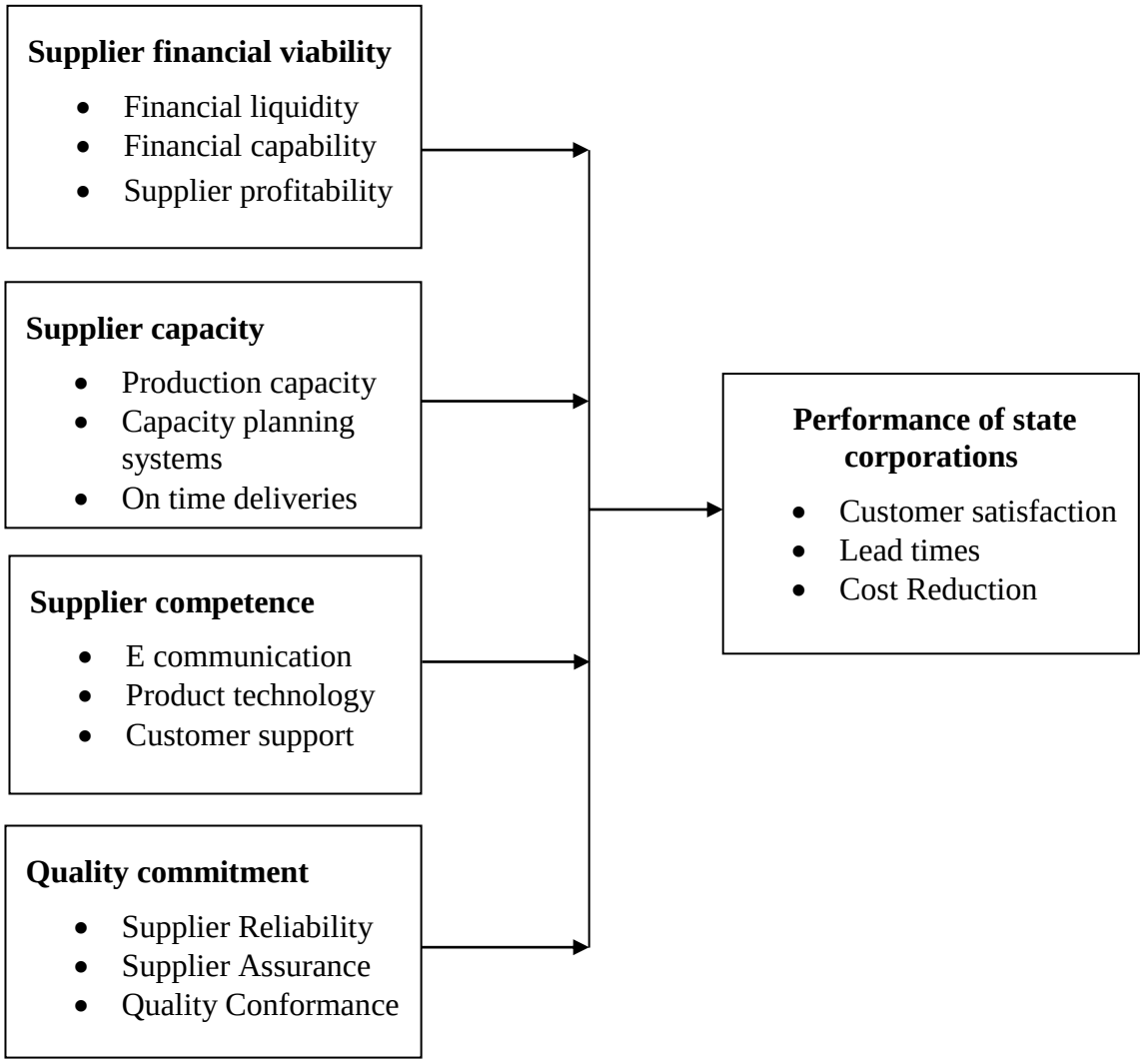

Figure 4.1: Revised Conceptual Framework

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to establish the influence of supplier evaluation criteria on the performance of state corporations in Kenya. This chapter deals with the summary of the findings, the conclusion and recommendations. This was done in line with the objectives of the study. Areas of further research were suggested needed for the future studies.

5.2 Summary of Major Findings.

This section summarizes the findings obtained in chapter four in line with the study objectives. The overall objective of this study was to establish the influence of supplier evaluation criteria on the performance of state corporations in Kenya. In particular the study sought to establish the influence of supplier quality commitment on the performance of state corporations in Kenya, to determine the influence of supplier competence on the performance of state corporations in Kenya, to examine the influence of supplier financial viability on the performance of state corporations in Kenya and finally to establish the influence of supplier capacity on the performance of state corporations in Kenya.

5.2.1 Influence Supplier Quality Commitment on Performance of State Corporations in Kenya

The first objective of the study was to establish the influence of supplier quality commitment on the performance of state corporations in Kenya. Descriptive results revealed that suppliers are reliable in terms of timeliness, consistency and accuracy. Further, suppliers were found to be credible, have respect for their customers and inspire trust where quality is concerned. In addition, the respondents noted that the suppliers are in conformance with the ISO standards and also conform to prompt services.

Correlation analysis showed that supplier quality commitment and performance of state corporations are positively and significantly associated. Regression analysis indicated that supplier quality commitment has a positive and significant influence on performance of state corporations. The hypothesis results indicated that there is a positive significant relationship between supplier quality commitment and performance of state corporations in Kenya.

5.2.2 Influence Supplier Competence on Performance of State Corporations in Kenya

The second objective of the study was to determine the influence of supplier competence on the performance of state corporations in Kenya. Descriptive results revealed that suppliers have the ability to use E-communication (send & receive) according to EDI-standard and they are abreast with the newer information technology developments. Further, majority of the respondents noted that a supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing, has internal competence in Product / Process development and have total product knowledge, functional systems, Research and development and the industrial processes. In addition, majority of the respondents noted that suppliers never default the customer support agreement signed between them and your firm and also provide their customer support with competence.

Correlation analysis showed that supplier competence and performance of state corporations are positively and significantly associated. Regression analysis indicated that supplier competence has a positive and significant influence on performance of state corporations. The hypothesis results indicated that there is a positive significant relationship between supplier competence and performance of state corporations in Kenya.

5.2.3 Influence Supplier Financial Viability on Performance of State Corporations in Kenya

The third objective of the study was to determine the influence of supplier financial viability on the performance of state corporations in Kenya. Descriptive results

indicated that suppliers companies have ability to pay off their short-term debt obligations and convert their assets to cash. Further, majority of the respondents noted that company's has the ability to meet its total long term financial obligations, earn profits as shown in their financial statements and has strong, long term relationships with customers thus profit margins increase. In addition, supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins and supplier services are constantly reviewed, to find ways of improving client experience and reducing time and costs in completion.

Correlation analysis showed that supplier financial viability and performance of state corporations are positively and significantly associated. Regression analysis indicated that supplier financial viability has a positive and significant influence on performance of state corporations. The hypothesis results indicated that there is a positive significant relationship between supplier financial viability and performance of state corporations in Kenya.

5.2.4 Influence Supplier Capacity on Performance of State Corporations in Kenya

The fourth objective of the study was to establish the influence of supplier capacity on the performance of state corporations in Kenya. Descriptive results revealed that majority of the respondents agreed that supplier maximum productive capacity in normal working period high, suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI). Further, on time deliveries, suppliers have an appropriate fleet management to ensure goods and services are delivered on time and suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays.

Correlation analysis showed that supplier capacity and performance of state corporations are positively and significantly associated. Regression analysis indicated that supplier capacity has a positive and significant influence on performance of state corporations. The hypothesis results indicated that there is a

positive significant relationship between supplier capacity and performance of state corporations in Kenya.

5.3 Conclusion

The crux of this study was to establish the influence of supplier evaluation on the performance of state corporations in Kenya. The study concludes that indeed evaluating is very crucial and indeed very vital in improving the performance of state corporations. Suppliers very vital and they can either break or build any organisation be it a private one or a public one and evaluating suppliers can really benefit them in a crucial way. Also the necessity for long-term relationships has made supplier evaluation one of the company's most important processes

Based on the findings the study concluded that supplier quality commitment influenced the performance of state corporations in Kenya. This can be explained by the regression results which showed that the influence was positive and significant. The univariate regression results showed that supplier quality commitment influenced the performance of state corporations. This shows that the individual influence of supplier quality commitment on the performance of state corporations is greater than the corporate influence (all the supplier evaluations). This is an indication that the presence of other supplier evaluations reduces the influence of supplier quality commitment. This study further concludes that suppliers in state corporations are actually reliable in terms of consistency and also in terms of accuracy. Credibility of the supplier is a very important aspects that firms need to consider when evaluating suppliers in terms of quality commitment and the study shows that suppliers are credible.

Regarding to supplier competence the study concluded that supplier competence influenced the performance of state corporations in Kenya. This can be explained by the regression results which showed that the influence was positive and significant. The univariate regression results showed that supplier competence influenced the performance of state corporations. Further, the overall regression results revealed supplier competence influenced the performance of state corporations. This shows

that the individual influence of supplier competence on the performance of state corporations is greater than the corporate influence (all the supplier evaluations). This is an indication that the presence of other supplier evaluations reduces the influence of supplier competence. Also the study further concludes that supplier in state corporations in Kenya are competent as they have the ability to use E-communication (send &receive) according to EDI-standard. Further suppliers can be able to turnaround a new product development and also they knowledge on their products, functional systems research and development and industrial processes. In addition the study conclude that organization really did not have information on whether their supplier are abreast with the newer information technology developments.

On the other hand the study concluded that supplier financial viability influenced the performance of state corporations in Kenya. This can be explained by the regression results which showed that the influence was positive and significant. The univariate regression results showed that supplier financial viability influenced the performance of state corporations. Further, the overall regression results revealed supplier financial viability influenced the performance of state corporations. This shows that the individual influence of supplier financial viability on the performance of state corporations is greater than the corporate influence (all the supplier evaluations). This is an indication that the presence of other supplier evaluations reduces the influence of supplier financial viability. Based on the findings suppliers in state corporations in Kenya in terms of financial viability as criteria for supplier evaluation have the ability to pay off short terms debt obligations which is a good clear indication that the are viable and based on their financial statement they are able to earn profits and their brands have excellent customer recognition. However one could see that they were not really aware that company has the ability to meet its total long term financial obligation.

Finally, the study concluded that supplier capacity influenced the performance of state corporations in Kenya. This can be explained by the regression results which showed that the influence was positive and significant. The univariate regression results showed that supplier capacity influenced the performance of state

corporations. Further, the overall regression results revealed supplier capacity influenced the performance of state corporations. This shows that the individual influence of supplier capacity on the performance of state corporations is greater than the corporate influence (all the supplier evaluations). This is an indication that the presence of other supplier evaluations reduces the influence of supplier capacity. In conclusion evaluating supplier capacity is very critical and paramount in the performance of the organisation and this study found out that supplier maximum productive capacity in normal working period is high which is actually a good thing.

5.4 Recommendations

The study established that supplier quality commitment, supplier competence, supplier financial viability and supplier capacity influence positively the performance of state corporations in Kenya, and in line with this the study recommended the need for suppliers to improve on the quality of their services. In particular, the organizations should consider the following quality dimensions; management commitment, product development, process improvement, quality planning and quality assurance in supply chain, quality assessment in production, inspection and experimentation and quality staff of supplier. The improvement of the mentioned quality aspects will lead to improved service provision by suppliers, which will translate into increased performance of state corporations. Also it's important to check the supplier's reliability in terms timeliness and also check if suppliers are in conformance with ISO standards. Also in improving product quality this study recommends that firms improves technology and sustains long-term relations with suppliers as this will affect the quality performance in a positive way.

Further, the study recommended that suppliers should develop competent technical abilities so as to provide high quality products or services. Some of the technical dimensions that suppliers should develop competence in include; compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, and maintenance activities of suppliers, plant layout and material. It's also recommended that state corporations in Kenya check frequently if supplier organisation is abreast with the newer information technology

developments as technology is very dynamic and changes regularly as the technology that was used in the past is not the one we using now and it will not be the one we will use tomorrow.

In addition, the study recommended that suppliers should formulate an effective financial plan, which will ensure that their financial viability is sustainable. Financial failure of key suppliers could lead to an organization suffering a significant financial loss and its operations could be seriously comprised and is the supplier are un able to supply it could to the form to stand at a standstill as no work will continue due to lack of materials. Also the study recommends that state corporations should set some funds apart to allow site visit to the supplier. This will enable them to have a first-hand information on whether the supplier are really in a position to supply goods to them and if they are actually have financial capacity. Since suppliers can either build or break an organisation this study recommends that a lot of time is given to check if their suppliers are financially viable as you do not want them to stop the follow of the supply.

Finally, the study recommended the need for suppliers to enhance their capacity so as to meet the expectations of their customers. Capacity is one of the key factors for any company's success and therefore suppliers should be evaluated based on this criterion. Some of the criterion that firms can use to assess their suppliers is Technological level, which involves general assessment of the supplier's capability in terms of innovation and technology. In conclusion the study recommends that state corporations managers should ensure that all their suppliers adopt the modern technology as it will help them improve their capacity performance that will indeed help curb any cases of lack of goods and supplies.

5.5 Suggested Areas for Further Study

This study looked at four criteria's of evaluating suppliers namely supplier quality commitment, supplier competence, supplier financial viability and supplier capacity but there are very many criteria's that can be explored further and their literature reviewed some include supplier consistency, supplier organisational culture, ways of

communication by suppliers, supplier cleanliness in terms of eco-friendly products especially in regard to rules and regulation instituted by the law etc. in addition to this The study also recommends that a study seeking to establish the influence of other supplier evaluation dimensions such as supplier distribution plans and marketing plans on firm performance should be conducted. This would help to give insight to the state corporations and other organizations on what other supplier evaluation criteria they should use in their assessment.

The study recommends that a similar study should be conducted in the private sector for comparison purposes as this study was done on state corporations in Kenya. Also not only in Kenya can the study be explored but also studies on supplier evaluation can be done on other international state corporations as this would help in expanding the study further and give an insight that can also help in comparison and widen the scope. The observations from this research too can help in providing insights for scholars wishing to explore the issues raised here, and offer guidance on actions to be taken by managers both in private and public sectors who are responsible for evaluating suitable suppliers. The results can be taken as a starting point for promoting a more integrated and flexible supply chain.

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APPENDICES

Appendix 1: Letter of Introduction

I am a student at Jomo Kenyatta university of Agriculture and Technology pursuing a PhD in Supply chain management. I am conducting a research on the influence of supplier evaluation on performance of state corporations in Kenya and you have been identified as one of the collaborators and key respondent in this study and I would like to invite you to kindly participate in my PhD research. I therefore write to request for your invaluable assistance towards making this study a success by taking time off your busy schedule to respond to the attached questionnaire

The information you provide shall be treated with utmost confidence and will only be used for the purpose of this study. Thanks in advance

Yours Faithfully,

Elizabeth Wachiuri

HD-411-C004/4173/2015

Tel : 0721202076

Appendix II: Questionnaire

This questionnaire seeks to investigate the influence of supplier evaluation criteria on performance of state corporations in Kenya. In particular, it will involve aspects of supplier quality commitment, supplier competence, supplier financial viability and supplier capacity

Note

(a) All responses will be treated in the strictest confidence

(b) If you would like a copy of the findings please supply name and address for receipt of your copy of the findings.

(c) Alternatively, if you would prefer your responses to remain completely anonymous, put only an email address in the address section. Please tick, (√), using copy & paste, where appropriate.

Name:

Address:

PART A: Organizational Data

Please provide the following information regarding your organization

1. Gender {] male [ ] Female
2. Age..... .... [ ] 18 – 30 [ ] 31 – 40 [ ] 41 – 50 [ ] 50 and above
3. Level of education [ ] O/A level [ ] Certificate/Diploma [ ] Bachelors

   [ ] post graduate [ ] other specifications

4. Years of experience in procurement department [ ] less than one year [ ] 1 -10 [] 10 – 20 [ ] 20 and above

5. Number of years the organization has been in operation in Kenya

a. Less than 5 years [ ]
b. 6 to 10 years [ ]
c. 11 to 15 years [ ]
d. 16 to 20 years [ ]
e. More than 20 years [ ]

PART B

Supplier quality commitments

Please indicate the extent to which each of the following supplier quality commitment issues influence performance of State Corporation. Please record your answer by ticking in the spaces provided, by the scale indicator (1= strongly disagree, 2=disagree, 3= Neither agree nor disagree, 4= agree, 5= Strongly agree)

Supplier quality commitments	1	2	3	4	5
Supplier Reliability					
a) Suppliers are reliable in terms of timeliness					
b) Suppliers are reliable in terms of consistency					
c) Suppliers are reliably in terms of accuracy					
Quality Assurance					
d) Our suppliers are credible.					
e) Our suppliers have respect for their customers					

f) There is safety and security in our suppliers					
g) Our supplier inspire trust were quality is concerned.					
Quality Conformance					
h) Suppliers are in conformance with the ISO standards.					
i) Suppliers are in conformance to prompt services					

Please suggest the influence of supplier quality commitment on performance of state corporations.

……

……

……..

Supplier competence

Please indicate the extent to which of the following supplier competence issues influence performance of State Corporation in your firm. Please record your answer by ticking in the spaces provided, by the scale indicator (1= strongly disagree, 2=disagree, 3= Neither agree nor disagree, 4= agree, 5= Strongly agree)

Supplier competence	1	2	3	4	5
E-communication					
a) Suppliers' have the ability to use E-communication (send & receive) according to EDI-standard.					
b) Supplier organization is abreast with the newer information technology developments.					
Product technology					
a) Does the supplier quickly turnaround a new product development with the effective use of his systems and					

machines in manufacturing.					
b) The supplies have internal competence in Product / Process development.					
c) Suppliers have total product knowledge, functional systems, Research and development and the industrial processes.					
Customer support					
d) Suppliers never default the customer support agreement signed between them and your firm.					
e) Suppliers provide their customer support with competence.					

Please suggest the influence of supplier competence on performance of state corporations……
……
……

Supplier Financial viability

Please indicate the extent to which of the following supplier financial viability issues influence performance of State Corporations. Please record your answer by ticking in the spaces provided, by the scale indicator (1= strongly disagree, 2=disagree, 3= Neither agree nor disagree, 4= agree, 5= Strongly agree)

Supplier Financial viability	1	2	3	4	5
Financial Liquidity					
a) Suppliers companies have ability to pay off its short-term debt obligations.					
b) Suppliers can be able to convert its assets to cash.					
Financial Capability					
a) company's has the ability to meet its total long term financial obligations					
Supplier Profitability					
b) Supplier organization have the ability to earn profits as shown in their financial statements.					
c) Suppliers firm has strong, long term relationships with customers thus profit margins increase.					
d) Supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins.					
e) Supplier's services constantly reviewed, to find ways of improving client experience and reducing time and costs in completion.					

Please suggest the influence of supplier financial viability on the performance of state corporations

……..

…….

Supplier capacity

Please indicate the extent to which of the following supplier capacity issues influence performance of State Corporation. Please record your answer by ticking in the spaces provided, by the scale indicator (1= strongly disagree, 2=disagree, 3= Neither agree nor disagree, 4= agree, 5= Strongly agree)

Supplier capacity	1	2	3	4	5
Production capacity					
a) Supplier maximum productive capacity in normal working period high					
b) Supplier maximum productive capacity in normal working period low					
c) Supplier capacity is currently over committed					
d) Supplier capacity is currently under committed					
Capacity planning systems					
e) Our suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI)					
On time deliveries					
f) Suppliers have an appropriate fleet management to ensure goods and services are delivered on time					
g) Suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays					

Please suggest the influence of supplier capacity on performance of state corporations……

……

……

Performance of state corporations

Please rate the performance of State Corporation. Record your answer by ticking in the spaces provided, by the scale indicator (1=strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree)

State corporation performance	1	2	3	4	5
Lead times					
Our suppliers always meet the set date of deliveries					
Our corporation strategies focus on reducing lead time					
Suppliers are loyal when it comes to order delivery					
We respond to user department order in time					
Customer satisfaction					
We focuses on providing excellent customer service					
Our customers are treated with courtesy, respect and Service is responsive and meets the needs of customers.					
Our customers complaints have reduced significantly					
Cost reduction					
We have significant financial reserve to cover all potential needs due to cost reduction					
Procurement costs have reduced					
Overhead costs have reduced					

Has supplier evaluation influenced the performance of State Corporation?

Yes ( ) No ( )

Kindly explain……
……
…….

If the answer of the above was yes, how would you rate the performance improvement using the given indicators?

		No influence	1-20%	21-40%	41-60%	Above 60%
1.	Improvement in lead times					
2.	Improvement in customer satisfaction					
3.	Improvement in cost reduction					

Please suggest other ways which you can rate performance of your company

……

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Appendix III: list of state corporations that participated in the study

	List of State Corporations in Kenya
1	Agricultural Development Corporation
2	Agricultural Finance Corporation
3	Ajira Digital Programme
4	Anti-Counterfeit Agency Board
5	Anti-money Laundering Advisory Board
6	Athi Water Services Board
7	Betting Control & Licensing Board
8	Bomas Of Kenya Limited
9	Brand Kenya Board
10	Capital Markets Authority
11	Catering & Tourism Development Levy Trustees
12	Centre for Mathematics Science and Technology in Africa
13	Chemelil Sugar Company
14	Coast Development Authority
15	Coast Water Services Board
16	Coffee Board of Kenya
17	Commission for University Education
18	Commission on Revenue Allocation
19	Communications Commission of Kenya
20	Competition Authority of Kenya
21	Council for Higher Education (CHE) in Kenya
22	East African Safari Air Ltd
23	Energy Regulatory Commission (ERC) in Kenya
24	Environmental Management and Co-ordination
25	Ewaso Ng'iro South Development Authority
26	Executive Secretariat & Technical Unit
27	Export Processing Zones Authority
28	Export Promotion Council
29	Geothermal Development Company – GDC
30	Government Press Kenya
31	Higher Education Loans Board
32	Horticultural Crops Development Authority
33	Independent Electoral & Boundaries Commission
34	Industrial Development Bank
35	Insurance Regulatory Authority
36	Jomo Kenyatta Foundation – JKF
37	Jomo Kenyatta University Of Agriculture and Technology

38	Kenya Accreditation Service
39	Kenya Airports Authority – KAA
40	Kenya Airways – KQ
41	Kenya Animal Genetics Resource Center
42	Kenya Anti-corruption Authority
43	Kenya Broadcasting Corporation
44	Kenya Bureau Of Standards
45	Kenya Civil Aviation Authority – KCAA
46	Kenya Coconut Development Authority
47	Kenya College of Communication and Technology
48	Kenya Education Management Institute – KEMI
49	Kenya Education Staff Institute – KESI
50	Kenya Electricity Generating Company – KenGen
51	Kenya Electricity Transmission Company – Ketraco
52	Kenya Energy Regulatory Commission – ERC
53	Kenya Ferry Service – KFS
54	Kenya Film Commission
55	Kenya Flower Council
56	Kenya Forest Service – KFS
57	Kenya Forestry Research Institute
58	Kenya Geothermal Development Corporation
59	Kenya ICT Board – KICTB
60	Kenya Industrial Estates
61	Kenya institute of Administration
62	Kenya Institute of Curriculum Development – KICD
63	Kenya Institute of Public Policy Research and Analysis
64	Kenya Institute of Special Education – KISE
65	Kenya Literature Bureau – KLB
66	Kenya marine and Fisheries Research Institute
67	Kenya Maritime Authority – KMA
68	Kenya Meat Commission – KMC
69	Kenya Medical Research Institute
70	Kenya National Commission for UNESCO
71	Kenya National Examinations Council – KNEC
72	Kenya National Highway Authority – KNHA
73	Kenya National Library Service – KNLS
74	Kenya National Shipping Line
75	Kenya National Youth Service – NYS Kenya
76	Kenya News Agency – KNA
77	Kenya Nuclear Electricity Board
78	Kenya Ordnance Factories Corporation

79	Kenya Petroleum Refineries – KPRL
80	Kenya Pipeline Company (KPC)
81	Kenya Plant Health Inspectorate Services (KEPHIS)
82	Kenya Post Office Saving Bank
83	Kenya Power and Lighting Company Ltd – KPLC
84	Kenya Revenue Authority
85	Kenya Roads Board
86	Kenya Rural Electrification Authority
87	Kenya Rural Roads Authority – KeRRA
88	Kenya Safari Lodges & Hotels
89	Kenya School of Government – KSG
90	Kenya Sugar Board – KSB
91	Kenya Sugar Research Foundation
92	Kenya Tea Development Agency – KTDA
93	Kenya Tourist Board
94	Kenya Tourist Development Corporation (KTDC)
95	Kenya Trade Network Agency Board
96	Kenya Veterinary Vaccines Production Institute
97	Kenya Wildlife Service
98	Kenya Yearbook Editorial Board
99	Kenyan MPS – Members of Parliament Kenya (Mps in Kenya)
100	Kenyatta National Hospital
101	Kerio Valley Development Authority (KVDA)
102	KERIO VALLEY DEVELOPMENT AUTHORITY(KVDA)
103	KURA – Kenya Urban Roads Authority Contacts
104	Lake Basin Development Authority
105	Lake Victoria South Water Services Board
106	LapFund
107	Local Authority Provident Fund
108	Maseno University
109	Media Council of Kenya
110	Micro and Small Enterprises Authority
111	Moi University
112	National AIDS Control Council
113	National Bank Of Kenya
114	National Campaign Against Drug Abuse Authority Board
115	National Cereals and Produce Board – NCPB
116	National Co-ordinating Agency for Population and Development- NCPD
117	National Construction Authority
118	National Council for children's services
119	National Council for Population & Development

120	National Development Fund For Persons With Disabilities
121	National Environment Tribunal
122	National Environmental Management Authority
123	National Housing Corporation
124	National Irrigation Board, Kenya
125	National Land Commission in Kenya
126	National Museums of Kenya – NMK
127	National Oil Corporation of Kenya
128	National Social Security Fund
129	National Water Conservation and Pipeline Corporation
130	New KCC
131	NGOs Co-ordination Board
132	Numerical Machining Complex Limited
133	Nyayo Tea Zones Development Corporation
134	Nzoia sugar company limited
135	Pest Control Products Board
136	Petroleum Institute of East Africa – PIEA
137	Policyholders Compensation Fund
138	Postal Corporation Of Kenya
139	Public Procurement Oversight Authority
140	Pyrethrum Board of Kenya – PBK
141	Radiation Protection Board
142	Retirement Benefits Authority
143	Rift Valley Water Services Board
144	Schools Equipment Production Unit – SEPU
145	South Nyanza Sugar Company
146	Sports Kenya
147	Sports Stadia Management Board
148	State Corporations Appeals tribunal
149	Tana & Athi Rivers Development Authority
150	Tana and Athi Rivers Development Authority
151	Tana Water Services Board
152	Teachers Service Commission (TSC) – Kenya
153	Telkom Kenya
154	The Kenya Medical Supplies Agency – KEMSA
155	The Kenya Medical Training College – KMTC
156	The Kenya Railways Corporation – KRC
157	The National Oil Corporation of Kenya – Nock
158	Transition Authority
159	University Of Nairobi Enterprises & Services Ltd
160	Uwezo Fund

161	Water Services Regulatory Board
162	Water Services Trust Fund
163	Women Representatives in Kenya
164	Consolidated Bank of Kenya
165	Communications Appeal Tribunal
166	Deposit Protection Fund Board
167	Kenya Accountants and Secretaries National Examinations Board(KASNEB)
168	Kenya Building Research Centre
169	Kenya Film Classification Board
170	Kenya Industrial Property Institute
171	Kenya Industrial Research and Development Institute
172	Tourism Regulatory Authority
173	Tourism Fund
174	The National Authority for the Campaign Against Alcohol and Drug Abuse
175	The Kenya ICT Authority
176	Kenya Urban Roads Authority
177	Social protection Secretariat
178	Settlement Fund Trustees
179	Sacco Societies Regulatory Authority
180	Rural electrification Authority
181	Renewable Energy Portal
182	Productivity Centre of Kenya
183	Privatization Commission
184	National Industrial Training Authority
185	National Hospital Insurance Fund
186	Kenya School of Monetary Studies
187	National Productivity and Competitiveness Centre

Appendix IV: Key Tables

Item	Description.
SQC1	Suppliers are reliable in terms of timeliness
SQC2	Suppliers are reliable in terms of consistency
SQC3	Suppliers are reliably in terms of accuracy
SQC4	Our suppliers are credible
SQC5	Our suppliers have respect for their customers
SQC6	There is safety and security in our suppliers
SQC7	Our supplier inspire trust were quality is concerned.
SQC8	Suppliers are in conformance with the ISO standards
SQC9	Suppliers are in conformance to prompt services
SC1	Suppliers' have the ability to use E-communication (send & receive) according to EDI-standard?
SC2	Supplier organization is abreast with the newer information technology developments?
SC3	Does the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing?
SC4	The supplies have internal competence in Product / Process development?
SC5	Suppliers have total product knowledge, functional systems, Research and development and the industrial processes?
SC6	Suppliers never default the customer support agreement signed between them and your firm?
SC7	Suppliers provide their customer support with competence?
SFV1	Do the suppliers companies have ability to pay off its short-term debt obligations?

SFV2	Can they be able to convert its assets to cash?
SFV3	Company's has the ability to meet its total long term financial obligations
SFV4	Do the supplier organization have the ability to earn profits as shown in their financial statements?
SFV5	Suppliers firm has strong, long term relationships with customers thus profit margins increase?
SFV6	Supplier's brands have excellent customer recognition and strong reputation for quality thus good profit margins?
SFV7	Supplier's services constantly reviewed, to find ways of improving client experience and reducing time and costs in completion?
SC1	Supplier maximum productive capacity in normal working period high
SC2	Supplier maximum productive capacity in normal working period low
SC3	Supplier capacity is currently over committed
SC4	Supplier capacity is currently under committed
SC5	Our suppliers are able to use systems for capacity planning e.g Material requirement planning (MRP), Material Resource Planning (MRPII), Electronic Data interchange (EDI)
SC6	Suppliers have an appropriate fleet management to ensure goods and services are delivered on time?
SC7	Suppliers have a computerized method of preventing fraud and abuse thus causing no unnecessary delays
PSC1	The suppliers always try to beat the set date of deliveries
PSC2	There is shorter lead times in our firm.
PSC3	Suppliers are loyal when it comes to order delivery
PSC4	We respond to customer order in time

PSC5	Our Company focuses on providing excellent customer service
PSC6	Our customers are treated with courtesy, respect and Service is responsive and meets the needs of customers.
PSC7	Our customers make repeat purchase and also they do refer others
PSC8	We have significant financial reserve to cover all potential needs due to cost reduction
PSC9	Our financial portfolio is very diverse
PSC10	We are enjoying profits due to customers buying our products as a result of cost reduction.