SUPPLIER EVALUATION ATTRIBUTES AND SUPPLY CHAIN PERFORMANCE OF COMMERCIAL STATE CORPORATIONS IN KENYA

BY

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DECLARATION

This Research Project Report is my original work and has not been presented for a degree award in this or any other institution of higher learning.

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God bless you all.

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DEDICATION

I dedicate this project to almighty God who has given me wisdom and strength, and to my family for being supportive and patient during the course of the research project writing.

ABSTRACT

The study set out to establish the relationship between supplier evaluation attributes and supply chain performance. The researcher adopted both qualitative and quantitative research designs. The two employees were be selected on equal proportions from 20 commercial state corporations, giving a total of forty respondents. The information from primary data source will be collected using mainly questionnaires. Stepwise regression analysis (OLS) was utilized to find the relationship between supplier evaluations attributes and supply chain performance. The response rate was 90% an indication that all commercial state corporations were well represented in this study. The respondents who participated in this study were knowledgeable to understand and synthesize the issues of supplier evaluation attributes and supply chain performance. On the supplier evaluation attributes, commercial state corporations in addition to financial healthy they equally considers financial dependency, turnover and profitability levels when evaluating their suppliers. On the relationship between suppliers evaluation attributes and supply chain using stepwise regression analysis established that 55.6 % of the variations in supply chain performance can be explained by variations in supplier evaluation attributes. This implies that the supplier evaluation attributes explain 55.6 % of the performances of the firm's supply chain. It was concluded that commercial state corporations pay a lot of attention to the suppliers' financial health and autonomy, the supplier's physical security and the supplier's supply chain experience, a perfect cultural fit, training programmes and the quality of the human resource management policies, and beneficial supplier-relationships and cost efficiency in an effort to improve their supply chain performance. Lastly, it was established the supplier evaluation attributes explain 55.6 % of the changes in the firm's supply chain performance. There is need to explore other supplier evaluation attributes like the suppliers' automation attributes and service delivery attributes and how they can influence supply chain performance. There is to conduct the same study in other sectors like manufacturing and service sector industries and firms.

LIST OF ABBREVIATIONS AND ACRONYMS

CIPS	Charted Institute of Procurement and Supply
ERP	Enterprise Resource Planning
JIT	Just-In-Time
KPMG	Klynveld Peat Marwick Goerdeler
MRP	Material requirements planning
OECD	Organisation for Economic Co-operation and Development
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Today, globalization, information technology and outsourcing have made it possible for modern businesses to successfully operate collaborative supply chain networks with specialized vital strategic activities. Since the beginning of the 21st century, Organizational survival is an intrinsic goal of every commercial entity. Survival, in this context, is grounded on competitive advantage where firms perform strategically important activities more cheaply or better than its competitors. Today, successful supply chain management has been heavily linked with improved competitiveness. The contribution of supply chain management to gaining a competitive advantage is embedded in the concept of relative performance, which can be measured by asking the company to compare its performance with that of its competitors. To achieve competitiveness, most private and public organizations have now directed their efforts towards improving the performance of their supply chain systems by elevating the extent of their efficiency and effectiveness (Hughes &Wadd, 2012). To achieve efficiency and effectiveness, organizations must overcome the challenge of successful implementation of proper supply chain management initiatives (Groznik&Trkman, 2012). Though, as evident in a number of cases, supply chain management initiatives may fail, particularly when the management does not take proper consideration of critical issues during its planning and implementation.

Owing to the benefits attributed to successfully supply chain management, there is need to manage supply chain risks, which are often caused by forces that may be within and outside an organization's supply chain.Such efforts have stressed on facilitation both supplier evaluation and supplier relationship management. To be precise, as part of their supply risk management, organizations have developed approaches to identify, assess, analyze and treat areas of vulnerability to supply chain risks (Ling & Ling, 2012). It should has generally be accepted that a comprehensive approach to supply chain relationship management is an undisputed prerequisite for supply chain performance, and should pay attention to supplier-associated turbulence and supplier evaluation attributes (Groznik & Trkman, 2012).

1.1.1 Supplier Evaluation Attributes

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.

According to Groznik et al. (2012), there are five key supplier evaluation attributes that can be considered crucial in achieving a sustainable supplier chain performance. These include financial performance, operational factors, human resource factors, cultural factors and relationship factors. Many scholars have demonstrated that firms that pay much attention to supplier evaluation attributes often build their supply chain strategy on flexibility and speed, which are important in achieving supply chain efficiency as well as reducing an organization's vulnerability to supply chain risks.

Though costly and challenging, the evaluation of supplier evaluation attributes could prove vital to most corporations. Generally, supplier evaluation can provide useful insight that is needed to drive better rational decision making and performance improvement. Gordon (2006) asserts that organizations that evaluate the attributes of their supplier prior to engaging them tend to enjoy a variety of benefits such as better understanding of the capabilities and performance levels of suppliers, reduced supply chain inefficient through waste elimination and cost reduction, proper mitigation of supply chain risks, and improved organizational competiveness through better supplier relationship management.

1.1.2 Supply Chain Performance

According to OECD (2013), a supply chain is a system comprising of all activities, actors, organizations, information, technology, services and resources that are involving in moving products from source to end consumers. Supply chain simply embodies all activities, which influence timing, quality, cost and delivery of a product (Khare et al., 2012). Drawing from the underlying definitions, supply chain performance, thus, can be regarded as the extended supply chain activities that are geared towards meeting the requirements of the end-customer in the supply chain.

There are apparently several indicators of supply chain performance, that have been recommended for use measuring an entity's supply chain performance. Petterson (2009) argue that in order to improve the effectiveness and efficiency of supply chain, four key indicators should be used. These include lead-time performance, profit, waste elimination and delivery promptness. In the recent past, many scholars have attempted to develop new supply chain performance metrics and measures while giving much considerationthe changes in the enterprise and market environments.

Gunasekaran et al. (2004) outlines six key metrics and measures of supply chain performance. They include order planning metrics, supply link evaluation, production level measures and metrics, delivery link evaluation, measurements on customer service and satisfaction and measurement of total logistic cost.

Supply chain performance measurement is undoubtedly crucial in facilitating greater understanding of an organization's supply chain operations, help to positively influence the behavior of its actors, and improve the organization's overall performance. Moreover, as Khare et al. (2012) clearly assert, supply chain performance measurement is crucial in providing adequate assistance for performance improvement in search of supply chain excellence.

1.1.3 Commercial State Corporations in Kenya

Stern (2011) defined a state corporation as an entity, which is created by the act of parliament with the aim of partaking commercial activities on the government's behalf. In the context of Kenyan laws, State Corporation Act Chapter 446 of the Law of Kenya, a state corporation refers to a body corporate that is established under or by an Act of Parliament or any other written law. However, it does not include a local authority founded under the Local Incorporation Act or the Permanent Secretary to the Treasury established under the Permanent Secretary to the Government Act (Njiru, 2008). Based on their core functions and mandate, the Kenyan State Corporations have been classified into 8 broad functional categories: regulatory, training and research, service, financial, public universities, tertiary education/training, regional development authorities, and commercial state corporations.

Ideally, Kenya state corporations are formed with the primarily goal of meeting both social and commercial goals. Whether social or commercial, the establishment of state corporations in Kenya is geared towards developing and maintaining physical infrastructure for speedy and sustainable economic growth; delivery of government services, information and processes that are accessible, integrated, customized, and aimed at creating an enabling environment for promotion, diversification and development of high quality products and services for public consumption, and for maintenance of a sustainable industrial employment and harmony.

The laws governing the operations of commercial state corporations in Kenya, particularly those involving procurement and supply chain activities are well documented in the Public Procurement and Asset Disposal Act no. 33 of 2015, which came into operation on 7th January 2016. The basic and general procurement/supply chain principles of commercial state corporations are outlined respectively in the Part V and Part VI of the Public Procurement and Asset Disposal Act 2015 (National Council For Law Reporting, 2015). Besides, Part VIII of the act provides clear guidelines on how state corporations should carry out key supply chain operations, particularly on activities involving to inventory control, store and asset management and distribution of goods.

1.2 Research Problem

The need to evaluate the financial stamina of suppliers within an organization's supply chain has been precisely evident in a paper by Browz (2015). Many authors (Scannell et al., 2000) assert that organizational competiveness can easily be derived from improved supply chain performance, which is primarily partly dependent on supply supplier evaluation attributes. The study looks at the relationship between a firm's supply chain performance and the supplier's financial status from the perspective of risk management. The conclusions of the study, which are based on a survey sample of 209 firms with a global foot print found that approximately 60% of supplier chain disruptions attributable to poor financial performance of supplier has led to about 3% drop in a firm's supplier chain performance. The study also found that business failure or poor financial standing of one supplier can impose hefty longstanding repercussions on firms that it works for or with. Cited in Browz (2015), findings from a study by KPMG that emphasized on supplier failure risk established that a supplier's financial risk can negatively affect the value of the firm with works with. The damages to the firm, in this context, could take the form of loss of customer goodwill, extra outsourcing costs, damaged credit and violate contracts, and loss of reputation, among others.

Commercial state corporations have made a considerable contribution to the social and economic developments of many states across the globe. A sizeable number of commercial state corporations are providing essential infrastructure and services, which are critical to economic development in most countries. In spite of their role, in general, the performance of commercial public corporations has been lower relative to their comparable commercial private corporations. Moreover, in spite of the efforts made by the government through the enactment necessary laws such as the Public Procurement and Disposal Act that are aimed at improving the supply chain competitiveness of the country's commercial state corporations, the state of corporations' supply chain performance continuous raise serious issues among practitioners. This condition has been attributed largely to the high number of partners and departments within the public sector supply chain structure (Kingoo, 2010).

A number of studies have attempted to establish the relationship between various supplier evaluation attributes and supply chain performance. Meile (2008) conducted a study that aimed to establish the relationship between company-supplier relations and supply chain performance. The aim of the study was to empirically test the relationship between supplier relations and supply chain performance of companies in the financial service sector. The findings of the study that were drawn from a sample of 108 firms were analyzed using both regression and correlation analysis. Holding other factors (use of information technology, supplier efficiency, supplier type) constant, the study established that better supplier relations were associated with improved supplier chain performance.

The role played by supplier culture on supplier chain performance has been well documented in literature. Trevor et al. (2013) conducted a study, which focused on establishing the extent to which supplier culture affect the performance of an organization's supply chain. Ideally, the key aim of the study was to investigate the extent to which cultural fit between the buyer and its strategic supplier influence performance. The study found a positive correlation between buyer-supplier cultural fit and a firm's supply chain performance. The findings of the study recommended the need for managers to pay considerable attention to the cultural evaluation of supplier during the selection process. Similar findings can be drawn from the study by Witfield and Landeros (2006), which assert that cultural misfit in the context of a supply chain, tend to have a direct negative effect on performance outcomes.

The operations of suppliers have a potential impact on the supplier chain integration and, consequently, on supply chain performance. Mburu et al. (2015) conducted a study that entails assessing the effect of supplier operations (supply capacity) on supply chain performance.Based on the findings derived from data collected from a sample of 153 experts from manufacturing firms, it was found that the firms that took into consideration the capacity of their suppliers were regarded with increased supply chain performance. A study byLee et al. (2007), which laid considerable emphasis on the relationship between supplier operations and supply chain performance, found a positive relationship between supplier operations that that enhances integration and the performance of an organization's supply chain, particularly on issues of cost containment.

Despite the fact that a number of studies have been carried out in the field of supply chain systems and operations of commercial state corporations worldwide that there are a number of studies that have focused on the supply chain systems of public corporations; no definite study has been directed towards the examination of supplier evaluation attributes. The vast majority of studies have emphasized a distinct set of dependent variables such as supply chain governance, supply chain management practices, supply chain relationship management, and risk management practices (Browz, 2015; Kingoo, 2010; Meile; 2008; Mburu et al., 2015; Landero, 2006; Nyamasege&Biraori, 2015; Winny&Wagoki, 2012; Mwilu, 2013). This study, thus, sets to bridge the literature gap by providing a sustainable solution the problems facing the supply chain performance of commercial corporations in Kenya with a bias on supplier attributes. The present study will, therefore, strive to close the research gap as guided by the following questions: What are the supplier evaluation attributes that are critical to the commercial state corporations operations? What is the relationship between supplier evaluation attributes and supply chain performance of commercial state corporations?

1.3 Research Objectives

The general objective of the study was to ascertain the effect of supplier evaluation attributes on supply chain performance of commercial state corporations. The specific objectives entailed:

(i) To determine the supplier evaluation attributes that are critical to commercial state corporation's operations.

(ii) To establish the relationship between supplier evaluation attributes and supply chain performance of commercial state corporations.

1.4 Scope of the Study

The study focused on supplier evaluation attributes and how they affect the supply chain performance of commercial state corporations in Kenya. Primarily focus was on commercial state corporations that meet the criteria provided in the State Corporations Act 2015 (Revised Edition). Besides, the present study was conducted during the month of July 2016.

1.5 Value of the Study

The currently study will help to close the literature gaps that have been left by previous studies. This implies that the present study will form a solid basis for future researches in the same line of study. In addition, the results of this study will help to positively influence managerial decision making in Kenyan commercial state corporations, particularly on matters affecting their supply chain systems. These actions will, in turn, undoubtedly improve their competiveness and survival through effective supply chain collaboration, optimization and coordination.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

One of the most important paradigm shifts of the contemporary business environment is that individual companies no longer compete as autonomous units, but instead as collective players within supply chain systems. In this ever changing environment, the ultimate success of a firm will primarily depend on the ability of the management to effectively integrate its broad network of business relationships; achieving a sustainable supply chain performance. Based on the recommendations drawn from numerous studies, it is apparent that firms need to pay much attention to supplier evaluation attributes in making decisions on the nature of supplier they intend to engage. By understanding supplier attributes, managers will be able to design more integrated supply chain systems that will contribute to increased supply chain competitiveness and profitability. Discussed below are the theoretical and empirical aspects that support the relationship between supplier evaluation attributes and supply chain performance.

2.2 Supplier Evaluation Attributes

The following are some of the supplier evaluation attributes

2.2.1 Supplier Financial Performance Attributes

It is imperative to perform finance evaluation of the company's suppliers at any phase of the sourcing process. Though, the process of monitoring the financial health of suppliers can be arguably challenging and subtle. This is largely because; that financial information may not be available publically. The key aspects of supplier financial performance evaluation should focus on turnover, profits, cash flow issues, loan capital level, presence of financial bakers, andlevel of financial dependency on clients. According to CIPS (2007), financial appraisal of supplier should be geared towards reducing financial risk and providing information that could be used to help firms make rational decisions on source of suppliers or evaluation of tenders. Useful information

for supplier financial performance evaluation can be derived from secondary data on suppliers and markets published financial statements, networking with existing clients of the supplier, and credit rating firms. Key considerations in evaluating the supplier's financial performance include assessing the supplier's turnover over a three years period; the supplier's profitability (net profit) for three years, the value of the firm's capital assets and the associated returns (ROA and ROE); the magnitude of borrowings; and the possibility of merger or takeover that may affect the firm's ability to supply (CIPS, 2007).

2.2.2 Supplier Operational Attributes

Supplier operational factors or attributes of an enterprise play a significant role in determining its success and survival in the every changing business environment. The operational aspects of suppliers have been regarded as one of the important attributes that firms should take into account when making decisions on whether or not to enter into an agreement with a specific supplie (Folinas, 2013). The supplier's operational factors, in this context, include supplier's location or country of origin, shipment and delivery accuracy, supply chain experience, physical security, internal processes, social and environmental responsibilities and flexible production capacity, among others. Having adequate knowledge of the supplier's location or country of origin is important in ascertaining their susceptibility to security threats, which could disrupt the supply chain process. Evidence shows that countries or regions that are more vulnerable to security threats may affect the security of the supplier's premises, and this, could cause delays along the firm's supply chain.

Shipping and delivery accuracy, another crucial operational aspect of suppliers, is concerned with ensuring that supplier can deliver their supplies consistently and on time. This should be based on the available shipment times and mode of transport. Physical security of supplier as noted earlier will undoubtedly be a crucial point of consideration in examining supplier attributes. When assessing the security of suppliers, firms should look at various aspects such as cargo storage procedures, adequacy of lighting around the supplier's perimeter, physical controls (locks on all doors and windows), and the nature of materials used for construction of supplier's premises (Golińska, 2014). The above information will help the firm to evaluate the supplier's ability to keep their premises safe regardless of both institutional and natural threats.

A focus on supplier's internal processes could also prove beneficial to the buyer firm. Finding information about the internal processes of a supplier offers clear visibility to both security and controls that might have been put in place during the manufacturing process. The supplier's social and environmental responsibility initiatives (such as work environment and air quality) are also increasing becoming important in assessing the risk of a supply chain.

2.2.3 Supplier Human Resource Attributes

Human resource management is often considered as an important part of every successful firm. Human resource experts have collectively held the idea that no firm can be better than its constituent elements, its employees. Drawing from this assertion, it can clear that quality of the supplier's human resource management policies can be used as one of the attributes that can influence supplier selection. The main aspects of supplier human resources that needs close attention include the degree with which the firm's HR policies are revised in favor of employees; qualifications, skills and experience of the management staff; adequacy of staff; employees' turnover; presence of training programmes; staff compensation and satisfaction (motivation); the number of days lost via industrial disputes over the past five years; and worker presentation in recognized trade unions (CIPS, 2007).

Employees are one of the most valuable assets of the firm and those of its suppliers. The link between the human resource management practices of suppliers and the supply chain performance of companies have been well illustrated in the research by Waithaka and Waiganjo (2015), which involved a case study of KTDA. One of the study's four objectives was to investigate the degree with which the employee morale of the KTDA'ssuppliers affects its supply chain performance. The findings, it can be established that suppliers that motivate their employees often result to increased supplier performance (such as reduced lead time), which in turn improve the supply chain performance of KTDA.

2.2.4 Supplier Cultural Attributes

Cultural factors occupy an important part in supply chain management. Positive supplier cultures are those, which embolden broader supplier selection, facilitate supplier development, carry out objective and fair supplier evaluation, and consequently improve diverse supplier trends. The key element in ascertaining supplier cultural fit includes commitment, communication, continuous improvement, and process integration (Morgan, 2005; Whitfield & Farrell, 2010, Whitfield &Landeros, 2006). Ideally, distinct values and norms that form the building blocks of culture are largely associated with diversity sourcing.

According to Buttner, et al. (2006), a firm that intends to successfully leverage the benefits of supplier diversity must consistently be tied to well-developed supplier cultures. For instance, Gordon (2008) demonstrates that where a supplier has a culture of resistance to change, improvement will be highly unlikely to occur. On the other hand, having at least some culture of desire for improvement tends to create a connection between the supplier and customers, which eventually result to continuous improvement. If the supplier is committed to continuous improvement, the customer firm is required to have a corresponding commitment if it expects improvements on the side of its suppliers; otherwise it will instead meet resentment and resistance.

2.2.5 Supplier Relationship Attributes

Individual firms do not work in isolation, but are rather inclined to work with one another as partners. It is important for companies to look for suppliers that satisfy their needs. Most of the company supplier relationships (adversarial) are built mainly on the price agreement between the supplier and the firm (Pullins et al., 2004). Such relationships often do not give room for cost reduction in the supply chain. The development of supplier relationships should largely be premised on personal, production, or symbolic networking, which tends to allow room for risk sharing, information sharing, and enjoyment of mutual benefits and coordination of plans between parties. In fact, for most firms today, establishing the act of establishing strong and mutual beneficial supplier-relationships is essential in improving overall supply chain performance, spurring greater cost efficiency and paving way for business growth and

development. Some ways of improving supplier relationship include rewarding best suppliers, and making regular and prompt payment to suppliers. The main benefits of making decisions based on company-supplier relationships include elimination of unnecessary costs; increased supply chain efficiency and communication; mitigation of price volatility along the supply chain, possibility of supply chain consolidation, continuous improvement, and outsourcing (Paul, 2013).

2.3 Supply Chain Performance

Supply chain performance measure has been a central subject of discussion in many studies involving supply chain management. From a general perspective, supply chain performance measurement focuses on inventory, time, working capital and cost. According to Gunasekaran et al. 2004; Gunasekaran et al., 2001), supply chain performance measure and metrics as pegged on four key supply chain processes: plan, source, assemble/make, and delivery/customer.

Metrics for Order Planning: Gunasekaran et al. (2004) presents three key measure of ascertain the performance of a firm's supply chain operations order planning level. They include: order entry method, order lead time (cycle time) and customer order path. According to presents three key measure of ascertain the performance of a firm's supply order entry method refers to the extent and manner to which a firm converts the specifications of the customer into information exchanged within the supply chain. Order lead-time, on the other hand, is regarded as the time lag between the point the firm receives customer order until the delivery of final products to that customer. A firm with a reduced order lead time will often result to improved supply chain competitiveness owing to a decline in supply chain response time. Customer order path has been described as the path, which an order traverses, and can be used to determine the time spent in different channels. By analyzing the customer order path, it is possible to establish whether an organization has non-value adding activities within its supply chain.

Evaluation of Supply Link: For many years, the supplier performance measures were based on price variation while giving less consideration to order receipt and on time delivery. More recent approaches have now turned towards attention towards the evaluation of supply link, which involves concentrating on measures that are crucial at strategic, operational and tactical level. As

per Gunasekaran et al. (2004), strategic level measures include cost saving initiatives, quality, lead time relative to industry norm, and supplier pricing relative to the market. Measures at operational level comprise of ability to avoid complaints, adherence to developed schedule and achievement of zero defect deliveries. Tactical level measures, on the other hand, entail capacity flexibility, booking in procedures, cash flow, and efficiency of order cycle time. In addition, supply link evaluation also looks at the supplier's ability to meet the company's long term goals by focusing on key areas such as supplier's strategic planning, potential future production capacity, and supplier's general growth plan (Van Hoek, 2001).

Measures and Metrics at Production Level: Production level supply chain performance measures and metrics touch on processes that make/assemble products, which include activities carried out by firms that own production sites. Appropriate metrics at production level include range of products produced, capacity utilization and effectiveness of scheduling techniques (Gunasekaran et al. 2004). Generally, plants that produce a wide range of products are most likely to performance less in terms of value addition per employee, delivery reliability and speed. Cited in Gunasekaran et al. (2004), a study by Slack et al. (1995), which focused on many aspects of production performance, revealed a direct relationship between capacity utilization and speed of response to the demands of customers through its impact on lead-time flexibility and deliverability. In the context of supply chain performance, scheduling refers to the date or by or on which activities are to be undertaken. Scheduling depends considerably on supplier performance and customer demands. When assessing a firm's supply chain performance, a primarily concentration should be on scheduling techniques such as ERP, MRP and JIT.

Evaluation of Delivery Link: Delivery link is one of the primary determinants of customer satisfaction. Thus, evaluating and improving supply delivery is often a desirable activity in an effort to increase a firm's competiveness. Evaluation of delivery link entails a critical examination of themeasures for delivery performance. Steward (1995) argues that an increase in delivery performance can be achieved if a firm focuses onkey aspects such as reduction in lead-time attributes. Another key aspect of delivery performance involvesfocusing on on-time delivery, which is an aspect that reflects customer service level: whether perfect order delivery or otherwise has taken place.

Delivery performance can also be evaluated by measuring the delivery speed; proportion of finished products in transit. Delivery speed can be influenced by factors such as location of depots, frequency of delivery, vehicle speed and driver reliability. An improvement in efficiency of the above areas can undoubtedly lead to a reduction in inventory levels. Gunasekaran et al. (2004) also show that delivery performance can be affected by the number of faultless notes invoiced. Invoice faults can be determined by comparing delivery time, date conditions with which goods were received. This information can show whether or not a perfect delivery has taken place. Delivery performancemeasures also cover the flexibility of delivery systems to meet specific customer needs. This type of flexibility can have a huge influence on the customers' decision to place orders, and it is, thus, important in enchanting and retaining customers.

Measurements on Customer Service and Satisfaction: A satisfied and happy customer is of utmost importance to any business organization. In the contemporary world, supply chain strategy cannot be deemed effective without a contented customer. One of the major measures of customer service and satisfaction is flexibility. Being flexible, in this context, means having the capability to produce goods or offer products, which meet individual customers' demands (Gunasekaran et al., 2004).Common flexibility services include economies of scale, machine up time and product development cycle time. Another important aspect is that of customer query time, which relates to the time taken by a firm to the time taken by a firm to respond to the queries of customers. An accurate and fast response to those customer requests is crucial in keeping them satisfied. There are equally ways of measuring customer satisfaction after a given transaction. Post transaction activities play a critical role in providing valuable customer feedback, which can be used to improve supply chain performance, further.

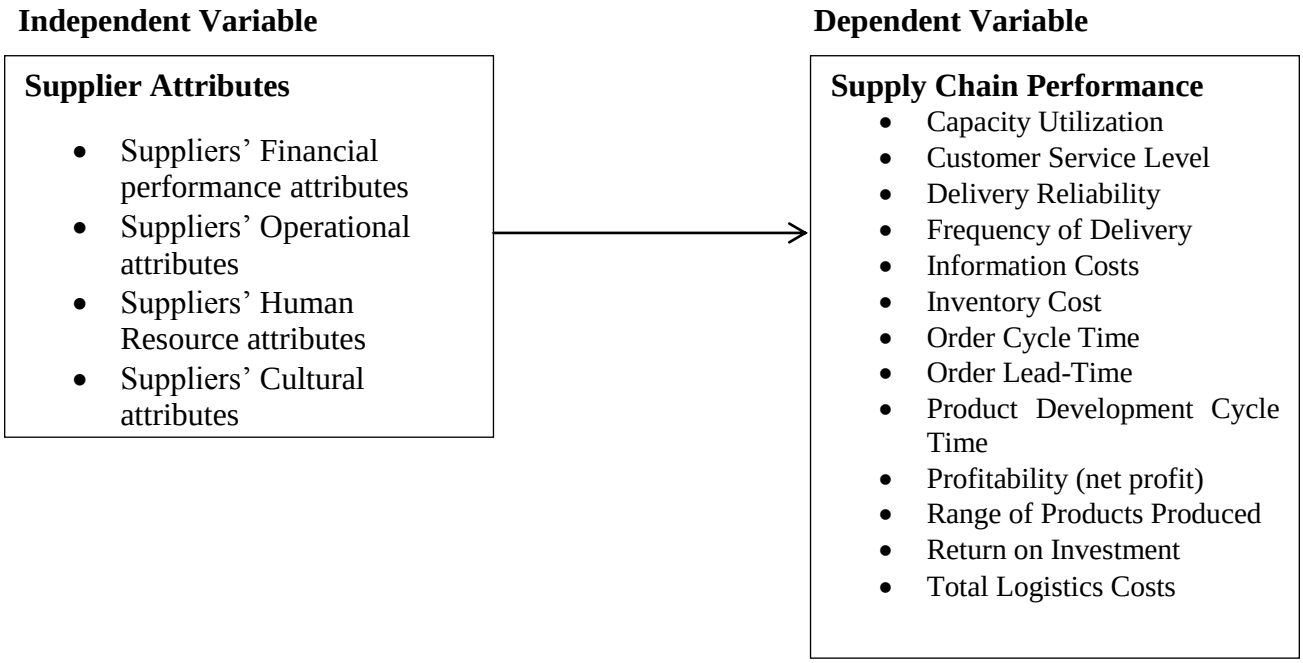
Measurement of Total Logistic Costs: The efficiency or performance of supply chain can be well assessed using the total logistics costs. It is important to measure the financial effect of a broad level practices and strategies, which contribute to the flow of goods in a supply chain. Total logistics costs are made up of Cost associated with assets and return on investment, and information costs (Gunasekaran et al., 2004). Supply chain assets, in this context, include plant, accounts receivable, inventories, property and equipment. With decreased liquidity and increasing levels of inflation, firms must improve the productivity of their capital by partly

determining how the costs associated with every asset together with turnover affect the firm's total cash flow time. The total cash flow time can be used to determine the productivity of assets along the supply chain. Once determined, total cash flow time and profit can provide a useful insight into an organization's ROI.

2.5 Conceptual Framework

Conceptual framework can defined as a theoretical structure of principles, assumptions, and rules that keep together an array of ideas comprise of a broad concept. A conceptual framework is an important aspect of this study particularly in understanding and developing relationships between the key principles, concepts and variables in the study. The conceptual model for this study will be as shown below.

Figure 2.1: Conceptual Framework



Source (Author 2016).

Suppliers' attributes are expected to have an impact on the supply chain performance of commercial corporations in Kenya. The hypothesized relationship between supplier chain performance us expected to be positive where desirable supply chain attributes will lead to improved supply chain performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents us with the tools and methods that will be used in data collection, analysis and presentation. The information provided in this chapter will undoubtedly help to justify the relevance of the research topic.

3.2 Research Design

Hall (2008) defines a research design as a procedural plan adopted by the researcher to answer research questions objectively, accurately, validly and economically. In general, the research design plays two key roles. First, it aids in the identification and development of logical arrangements and procedures required to undertake a study. Second, the design lays emphasis on the quality (objectivity, validity and accuracy) of the underlying procedures (Woodbury, 2002). Since this study entails both qualitative and quantifiable phenomena, the researcher adopted both qualitative and quantitative research designs.

3.3 Target Population

The target population was mainly comprise of employees of commercial that work in the supply chain departments, logistics, or procurement department. To be precisely, the target population comprised of more than 10000 employees.

3.4 Sample and Sampling Procedure

In selecting a population samples, the researcher gave every element in the target population an equal chance of being include in the samples. This implied that probability sampling techniques was adopted (Gravetter and Forzano, 2011). With a target population of more than 10000 employees, the study sample size is expected to be large. And was arrived using the formula:

$$Sample\ size = \frac{\frac{Z^2 XP(1-p)}{e^2}}{1 + (\frac{z^2 + p(1-P)}{e^2 N})}$$

Where; N= Target Population size, e=Margin of error, Z= z-score and P=probability.

With a margin of error of 10% and confidence interval of 95%, the study sample will comprise of 100 employees (that is 96 or more employees based on the above formula). The rationale for utilizing a large sample (n > 30) is to increase the degree of the exactitude of the results. To be precise, the two employees were selected on equal proportions from 20 commercial state corporations, giving a total of forty respondents. However, the selection of employees from each corporation followed simple random sampling.

3.5 Data Collection

Since the researcher largely aims to extract raw (original) data directly from the study population, primary data collection approach was effective. This is because the study was based mainly on individual views and perceptions. Though this approach may be expensive that the secondary data collection approach, it gave the research power to manipulate the research design appropriately (Hair, 2011). However, to some extent, the research reviewed information found on secondary data sources.

The information from primary data source was collected using mainly questionnaires. The questionnaires consisted of both open-ended and closed-questions from which the participants will be allowed to given their personal and professional views depending on the nature of the questions. The design of the questions was based on the likert scale. A pilot study was done to test the validity of the questionnaire before actual research was conducted. The questionnaires were distributed to the respondents through mainly through drop and pick method.

3.6 Data Analysis

Data analysis is most important part of any study. Data analysis is the act of transforming data with the aim of extracting useful information and facilitating conclusions (Daniel, 2012). The information obtained from the respondents to the research questions will be coded and subjected to data cleaning before performing data analysis. Owing the research designed stated in subjection 3.2, both qualitative and quantitative data analysis techniques will be utilized. Qualitative data was analyzed through human analysis while quantitative data was analyzed through relevant statistical tools. In this context, both SPSS and Microsoft office excel will be employed. In the large part of the analysis, however, descriptive statistics was used where the data will be presented in form of pie charts, tables and bar charts. Key focus was on the frequencies and measures of central tendency. Also stepwise regression analysis (OLS) was utilized to find the relationship between supplier valuation attributes and supply chain performance based on the equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

$Y - Supply\ Chain\ Peformance$

$\beta_0 - Constant$

$\beta_1, \beta_2, \beta_3, \quad \beta_4, \quad \beta_5 - Regression\ Coeffients$

$X_1 - Supplier\ Financial\ Performance$

$X_2 - Supplier\ Operational\ Factors$

$X_3 - Supplier\ Cultural\ Factors$

$X_4 - Supplier\ Human\ Resource\ Factors$

$X_5 - Supplier\ Relationship\ Factors$

$\varepsilon - Error\ Term$

3.7 Research Ethics

Ethics form an integral part of every research. Research ethics consisted of the application of essential principles of ethics to a variety of research topics, especially in scientific research. These entail the design and implementation of research (Healey, 2012). Prior to conducting, every study participant was obligated to read and understand the provision of research ethics. This helped to minimize the violation of rights of the respondents during the study and minimize research misconducts such as plagiarism, fabrication and falsification (Mertens& Ginsberg, 2009). Moreover, each research participant will be required to sign a compulsory form declaring that they have agreed to operate within the scope of the research ethics, which lays emphasis on research integrity, friendly researcher-participant relationship, and non-violation of the educational institutional rights.

CHAPTER FOUR: DATA ANALYSIS, FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1Introduction

This chapter is composed of the analysis of the data which was collected through a questionnaire. Data was analyzed using SPSS (Statistical Package for Social Sciences) version 20.0 and MS excel .Descriptive statistics (means, percentages and standard deviation) was used to analyze the likert scale data. Stepwise regression analysis was used to test the relationship between the two study variables.

4.2Study Response Rate

The unit of analysis was commercial state corporations in Kenya. Two employees were sampled from the two (20) commercial state corporations, giving a total of forty respondents. Out of the forty respondents, only thirty-six (36) respondents filled the questionnaires from eighteen (18) parastatals. This gave a response rate of 90%. This is an indication that all commercial state corporations were well represented in this study.

4.3Demographic Information

The following demographic information was collected from the respondents.

4.3.1 Gender Distribution

The government of Kenya has great focus on gender mainstreaming and equity. The respondents were asked to indicate their gender and the results are as in table 4.1 below.

Table 4.1 Gender Distribution

Gender	Frequency	Percent
Male	14	38.9
Female	22	61.1
Total	36	100.0

Source: Research Data, 2016

From the findings in table 4.1 above, most of the respondents were female (61%) while 39% were male. This shows a fair gender distribution for the respondents and the employees in the procurement function.

4.3.2 Age Distribution

The age of the employee has an influence on the conceptualization of the functions of the procurement function. The respondents were asked to indicate their age distribution and the response is an in table 4.2 below.

Table 4.2 Age Distribution

Age	Frequency	Percent
36-45 years	14	38.9
Below 25 years	8	22.2
26 -35 years	8	22.2
46-55 years	6	16.7
Total	36	100.0

Source: Research Data, 2016

The results from table 4.2 above indicate that most respondents were between 36-45 years which is an indication that there is need for succession planning as very few were 46-55 years.

4.3.3 Highest Qualification Level

One's level of education determines their productivity in discharging their duties in the procurement function. The respondents were asked to indicate their level of education and the results are as in the table 4.3 below.

Table 4.3 Highest qualification level

Qualification Level	Frequency	Percent
Bachelor	16	44.4
Masters	14	38.9
Diploma/Certificate	6	16.7
Total	36	100.0

Source: Research Data, 2016

From the results in table 4.3 above, majority of the respondents have a bachelors (44%) and masters (39%). This is an indication that the respondents who participated in this study were knowledgeable to understand and synthesize the issues of supplier evaluation attributes and supply chain performance.

4.3.4 Level Occupying In Management

An employee's level of management is influenced by the quality of decision making on supply chain management issues. The respondents were asked to indicate their level of management participation and the results are as in table 4.4 below.

Table 4.4 Level Occupying In Management

Level	Frequency	Percent
Middle level	22	61.1
Low level	8	22.2
4.00	6	16.7
Total	36	100.0

Source: Research Data, 2016

From the results in table 4.4 above, most of the participants were in middle level management (61%) which matches their level of education. This implies the parastatals use merit to promote their employees and the majority of the participants understand the decisional issues addressed in supplier evaluation.

4.3.5 Years of Experience as a Staff in Supply Chain

The number of years one has worked in a procurement function can influence the understanding of the concepts of study especially on what can be seen as the best practices in managing such a function. The respondents were asked to indicate their years of experience in the supply chain function and the results are presented ass in the table 4.5 below.

Table 4.5 Years of Experience as a Staff in Supply Chain

Years	Frequency	Percent
7-9 years	14	38.9
1-3 years	8	22.2
4-6 years	8	22.2
10 years and above	6	16.7
Total	36	100.0

Source: Research Data, 2016

From the findings in table 4,5 above, majority of the respondents have more than 7 years' experience in discharging their procurement function which implies that the respondents had a good grasp of the best practices in supplier evaluation attributes.

4.4Supplier Evaluation Attributes

The study focused on five key supplier evaluation attributes (supplier operational attributes; supplier financial performance attributes; supplier human resource attributes; supplier cultural attributes; and supplier relationship attributes) whose findings are discussed in the subsections below.

4.4.1 Financial Performance of Suppliers

The financial proposals are mandatory in any procurement exercise to show the firm's ability to deliver the obligations being sourced for. Organizations are there required to evaluation the financial performance of their suppliers to mitigate any financial related risks.

The respondents were asked to indicate the extent to which their commercial state corporation had used the a number of attributes when evaluating the financial performance of its suppliers in an effort to enhance its supplier chain performance using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent. The results are as in table 4.6 below.

Table 4.6 Financial Performance Attributes of Suppliers

Financial Performance of Suppliers	Descriptive Statistics	
	Mean	Std. Deviation
The parastatal regularly monitors the financial health of its suppliers.	4.5556	.50395
The parastatal evaluates the supplier's turnover, profits, cash flow issues and loan capital level.	4.5556	.50395
The parastatal always evaluates the suppliers' level of financial dependency on their clients.	4.3333	.82808
The parastatal always performs finance evaluation of its suppliers annually.	4.2222	.72155
The evaluation of the suppliers' financial performance has enabled the parastatal to reduce the procurement financial risk.	4.2222	.42164
All the suppliers we engage have minimal financial dependency on their clients	4.2000	.75926
Our firm has often engaged suppliers with high turnover and profitability	4.1667	.77460
Prior to making any agreement, the organization often performs a comprehensive evaluation of our suppliers' financial status	4.0000	.67612
Majority of our suppliers have no major loan capital issues	3.7778	.79682
Valid N (listwise)		

Source: Research Data, 2016

To a very great extent (Mean≥4.3 with a significant standard deviation), the commercial state corporations regularly monitors the financial health of its suppliers; evaluates the supplier's turnover, profits, cash flow issues and loan capital level; and always evaluates the suppliers' level of financial dependency on their clients. This implies that the commercial state corporations pay a lot of attention to the suppliers' financial health and autonomy in an effort to improve their supply chain performance. This is in agreement with the observations of CIPS, (2007) that the supplier's financial performance is a key consideration in the assessment of an organization's supplier. To a great extent (4.22≥Mean≥3.77 and 0.72≥standard deviation≥0.79), the commercial state corporations: always performs finance evaluation of its suppliers annually to reduce the procurement financial risk; has prequalified suppliers with minimal financial dependency on their clients; often engages suppliers with high turnover and profitability; often performs a comprehensive evaluation of our suppliers' financial status; and has majority of its suppliers with no major loan capital issues. This indicates that the commercial state corporation in addition to financial healthy considers financial dependency, turnover and profitability levels when evaluating their suppliers. The findings are in concurrence with CIPS (2007) conclusion that financial appraisals of supplier financial dependency, turnover and profitability levels are key in the evaluation of tenders.

4.4.2 Suppliers' Operational Attributes

The suppliers' operational attribute factors are mandatory in any procurement exercise to show the firm's ability to deliver value for the obligations being sourced for. Organizations are there required to evaluation the suppliers' operational attribute factors to mitigate any operational related risks. The respondents were asked to indicate the extent to which their commercial state corporation had used the a number of attributes when evaluating the suppliers' operational attribute factors in an effort to enhance its supplier chain performance using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent. The results are as in table 4.7 below.

Table 4.7 Suppliers' Operational Attribute Factors

Suppliers' Operational Factors	**Descriptive Statistics**	
	Mean	**Std. Deviation**
The parastatal considers the supplier's physical security in its suppliers' evaluation.	4.3333	.82808
The parastatal considers the supplier's supply chain experience in its suppliers' evaluation.	4.3333	.82808
The parastatal considers the supplier's operational flexibility in its suppliers' evaluation.	4.1667	.37796
The parastatal considers the supplier's location or country of origin in its suppliers' evaluation.	4.1667	.77460
The parastatal acknowledges the significant role played by supplier operational factors.	4.1667	.77460
The parastatal considers the supplier's shipment and delivery accuracy in its suppliers' evaluation.	4.1111	.74748
The operational aspects of suppliers are considered before signing supply contracts.	4.1111	.74748
The parastatal considers the supplier's location or country of origin in its suppliers' evaluation.	3.9444	.62994
The parastatal considers the supplier's internal processes in its suppliers' evaluation.	3.8889	.88730
The parastatal considers the supplier's environmental responsiveness in its suppliers' evaluation.	3.7222	.74108
Valid N (listwise)		

Source: Research Data, 2016

To a very great extent (Mean≥4.3 with a significant Standard Deviation≥0.82), the commercial state corporations regularly considers the supplier's physical security and the supplier's supply chain experience. This implies that the commercial state corporations pay a lot of attention to the supplier's physical security and the supplier's supply chain experience in an effort to improve their supply chain performance. This is in agreement with the observations of Folinas, (2013) that the supplier's physical security and the supplier's supply chain experience play a significant role in supplier's assessment for an organization.

To a great extent (4.16≥Mean≥3.72 and 0.74≥standard deviation≥0.377), the commercial state corporations: always considers the supplier's operational flexibility, location or country of origin, acknowledges the significant role played by supplier operational factors, the supplier's shipment and delivery accuracy, supply contracts performance, supplier's internal processes and the supplier's environmental responsiveness in its suppliers' evaluation. This indicates that the commercial state corporation in addition to supplier's physical security and supply chain experience considers supplier's internal processes, operational performance and delivery accuracy when evaluating their suppliers. The findings are in concurrence with Golińska,(2014) conclusion that operational attributes evaluation determines the supplier's ability to keep their premises safe.

4.4.3 Supplier Cultural Attributes

The supplier cultural attribute factors are mandatory in any procurement exercise to show the firm's ability to always deliver in the best way possible the obligations being sourced for. Organizations are there required to evaluation the suppliers' operational attribute factors to mitigate any operational related risks. The respondents were asked to indicate the extent to which their commercial state corporation had used the a number of attributes when evaluating the supplier cultural attribute factors in an effort to enhance its supplier chain performance using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent. The results are as in table 4.8 below.

Table 4.8 Supplier Cultural Attributes

Supplier Cultural Factors	Descriptive Statistics	
	Mean	**Std. Deviation**
The organization has a high value for diversity outsourcing	4.3889	.49441
There is a generally a perfect cultural fit between our firm and that of our suppliers	4.3889	.49441
We always engage suppliers that have the same cultural values as those of our own (communication, commitment, process integration among others)	4.2222	.42164
The organization often adopts positive supplier cultural evaluation prior to making any supplier engagement	4.2222	.42164
Valid N (listwise)		

Source: Research Data, 2016

To a great extent (4.3≥Mean≥4.2 and 0.49≥standard deviation≥0.42), the commercial state corporations: always has a high value for diversity outsourcing with generally a perfect cultural fit with their suppliers in terms of communication, commitment, process integration. Lastly, the commercial state corporations always adopt a positive supplier cultural evaluation prior to making any supplier engagement. This implies that the commercial state corporation emphasizes a perfect cultural fit when evaluating their suppliers. The findings are in concurrence with Whitfield & Farrell, (2010) indication that the suppliers' values and norms lead to diversity sourcing for an organization.

4.4.4 Supplier Human Resource Attributes

The supplier human resource attribute factors are mandatory in any procurement exercise to show the firm's capacity to always deliver in the best professional way possible the obligations being sourced for. Organizations are there required to evaluation the suppliers' human resource attribute factors to mitigate any operational related risks. The respondents were asked to indicate the extent to which their commercial state corporation had used the a number of attributes when evaluating the supplier human resource attribute factors in an effort to enhance its supplier chain performance using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent. The results are as in table 4.9 below.

Table 4.9 Supplier Human Resource Attributes

Supplier Human Resource Factors	Descriptive Statistics	
	Mean	Mean
The parastatal considers the supplier's presence of training programmes in its suppliers' selection process.	4.6111	.49441
The parastatal analyzes the quality of the supplier's human resource management policies in its supplier selection.	4.6111	.49441
The parastatal considers the supplier's number of days lost via industrial disputes in its suppliers' selection process.	4.3889	.49441
The parastatal considers the supplier's skills and experience of the management staff in its suppliers' selection process.	4.3889	.49441
The parastatal considers the supplier's staff compensation and satisfaction in its suppliers' selection process.	4.2222	.42164
The parastatal considers the supplier's employees' turnover in its suppliers' selection process.	4.0000	.67612
The parastatal considers the supplier's adequacy of staff in its suppliers' selection process.	3.7778	.79682
Valid N (listwise)		

Source: Research Data, 2016

To a very great extent (Mean≥4.6 with a significant Standard Deviation≥0.49), the commercial state corporations regularly considers the supplier's presence of training programmes and the quality of the supplier's human resource management policies in its supplier selection. This implies that the commercial state corporations pay a lot of attention to the supplier's training programmes and the quality of the human resource management policies in an effort to improve their supply chain performance. This is in agreement with Waithaka and Waiganjo (2015), that the human resource management practices of suppliers has a role to play a supply chain performance.

To a great extent (4.38≥Mean≥3.77 and 0.79≥Standard Deviation≥0.49), the commercial state corporations: always considers the supplier's skills and experience of the management staff, staff compensation and satisfaction, employees' turnover, adequacy of staff and number of days lost via industrial disputes in its suppliers' selection process and evaluation. This indicates that the commercial state corporation in addition to supplier's skills and experience of the management staff in evaluating their suppliers. The findings are in concurrence with CIPS (2014), conclusion HR attributes are often considered as an important factor in the evaluation and selection of an organization's suppliers.

4.4.5 Supplier Relationship Attributes

The supplier relationship attribute factors are mandatory in any procurement exercise to show the firm's capacity to always deliver in the best professional way possible the obligations being sourced for. Organizations are there required to evaluation the suppliers' relationship attribute factors to mitigate any network related risks. The respondents were asked to indicate the extent to which their commercial state corporation had used the a number of attributes when evaluating the supplier relationship attribute factors in an effort to enhance its supplier chain performance using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent. The results are as in table 4.10 below.

Table 4.10 Supplier Relationship Attributes

Supplier Relationship Factors	Descriptive Statistics	
	Mean	Std. Deviation
The parastatal considers the supplier's mutual benefits and coordination of plans in its suppliers' selection process.	4.6667	.75593
The parastatal considers the supplier's information sharing in its suppliers' selection process.	4.5000	.77460
The parastatal considers the supplier's cost efficiency in its suppliers' selection process.	4.5000	.77460
The parastatal considers the supplier's continuous improvement initiatives in its suppliers' selection process.	4.2778	.74108
The parastatal considers the supplier's beneficial supplier-relationships in its suppliers' selection process.	4.2778	.74108
The parastatal always make regular and prompt payments to all our suppliers	4.2222	.98883
We often reward the best supplier every year	4.0000	.89443
The parastatal's management award tenders to suppliers based primarily on their relationship with the firm	4.0000	.89443
The parastatal considers the supplier's symbolic networking in its suppliers' selection process.	3.8529	1.18404
The parastatal considers the supplier's risk sharing in its suppliers' selection process.	3.8333	1.23056
The parastatal has formed alliances (price agreements) with suppliers	3.7778	.79682
The parastatal considers the supplier's price agreement in its suppliers' selection process.	3.6111	1.07644
The parastatal is constantly striving to strengthen supplier relationship through participation in personal, production and symbolic networking	3.6111	.83761
Valid N (listwise)		

Source: Research Data, 2016

To a very great extent (Mean≥4.2 with a significant Standard Deviation≥0.98), the commercial state corporations regularly considers the supplier's information sharing, cost efficiency, continuous improvement initiatives, regular and prompt payments, beneficial supplier-relationships, mutual benefits and coordination of plans in its suppliers' selection process.

This implies that the commercial state corporations pay a lot of attention to beneficial supplier-relationships and cost efficiency in an effort to improve their supply chain performance. This contradicts Pullins et al., (2004) observation that beneficial supplier-relationships often do not give room for cost reduction in the supply chain.

To a great extent (4.00≥Mean≥3.6 and 0.89≥Standard Deviation≥0.83), the commercial state corporations: always reward the best supplier every year, award tenders to suppliers based primarily on their relationship with the firm, supplier's symbolic networking, risk sharing, price agreements, participation in personal, production and symbolic networking.

This indicates that the commercial state corporation in addition to supplier's skills equally considers supplier's symbolic networking, risk sharing, price agreements in evaluating their suppliers. The findings are in concurrence with Paul, (2013) conclusion that main benefits of making decisions based on company-supplier relationships include elimination of unnecessary costs; increased supply chain efficiency in the selection of an organization's suppliers.

4.5 Supply Chain Performance

Supply chain performance measure is a very dynamic subject in management discussions. The respondents were asked to indicate the extent to which their commercial state corporation enjoyed the following benefits in its supply chain performance as a result of enhanced supplier evaluation using a five-likert scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent. The outcomes are as in table 4.11 below.

Table 4.11 Benefits in Supply Chain Performance

Benefits	Descriptive Statistics	
	Mean	Std. Deviation
We experience a minimum number of faultless notes invoiced	4.1429	.35504
We strive to produce high quality products to our clients	4.1111	.74748
We have a narrow range of products and services	3.9444	1.14504
We take very short time to respond to our customer queries	3.9444	.62994
We tend to optimize our distribution costs	3.9444	.62994
Our firm has a lower lead time relative to the industry norm	3.9444	.62994
Our order scheduling techniques are very effective	3.8235	1.02899
We always deliver our orders on time	3.8000	.40584
There is strict adherence to order planning schedules	3.7879	.41515
Our firm's order cycle time is very short	3.7879	.73983
Our delivery systems are highly flexible	3.7222	1.00317
Valid N (listwise)		

Source: Research Data, 2016

Generally, a result of enhanced supplier evaluation the commercial state corporations have realized the following benefits as evidenced in their supply chain performance: reduced number of faultless notes invoiced; high quality products; short response time to customer queries; optimization of distribution costs; reduction of lead time relative to the industry norm; improved effectiveness in order scheduling, planning and delivery with flexible delivery systems.

This affirms Gunasekaran et al., (2004) assertion that supply chain performance indicators should focus on order processing, product design, distribution costs and industry norms/plans.

The above qualitative indicators could not be useful in establishing the relationship between the supplier evaluation attributes and supply chain performance. Hence the need to compute the supply chain index for each firm which could be used in the stepwise regression analysis as in the table 4.12 below.

Table 4.12 Supply Chain Performance Index

Supply Chain Performance Indicators	Weight (a)	Unit of Measure	2013	2014	2015	Average (b)	Weighted Average (a*b)
Capacity Utilization	0.1	%	82	86	92	86.67	**8.67**
Customer Service Level	0.1	%	68	76	78	74.00	**7.40**
Delivery Reliability	0.1	%	90	80	98	89.33	**8.93**
Frequency of Delivery	0.1	%	100	99	100	99.67	**9.97**
Information Costs	0.1	Kshs.	30	40	60	43.33	**4.33**
Inventory Cost	0.1	Kshs.	500	450	340	430.00	**43.00**
Order Cycle Time	0.1	Days	3	2	3	2.67	**0.27**
Order Lead-Time	0.1	Days	6	4	3	4.33	**0.43**
Product Development Cycle Time	0.1	Days	30	28	21	26.33	**2.63**
Profitability (net profit)	0.05	Kshs.	600	800	1000	800.00	**40.00**
Range of Products Produced	0.05	No.	4	9	21	11.33	**0.57**
Return on Investment	0.25	%	45	50	56	50.33	**12.58**
Total Logistics Costs	0.25	Kshs.	450	320	200	323.33	**80.83**
Total/Composite Score	1						**219.62**

Source: Research Data, 2016

The results above will be used to establish the relationship between supplier evaluation attributes and supply chain performance in the next section.

4.6 The Relationship between Supplier Evaluation Attributes and Supply Chain Performance

In order to compute the relationship between supplier evaluation attributes and supply chain performance, there was need to compute the mean for each questionnaire response for each supplier evaluation attribute against the supply chain performance index (see Annex IV).

Table 4.13 Model Summary for Supplier Evaluation Attributes and Supply Chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	ANOVA[a]		
					Mean Square	F	Sig.
1	.674(a)	.455	.444	.25389	8.288	128.581	.000[a]
2	.720(b)	.519	.505	.10399	5.062	468.067	.000[b]
3	.757(c)	.574	.556	.09163	3.404	405.387	.000[c]
a. Predictors: (Constant), Supplier Human Resource Factors							
b. Predictors: (Constant), Supplier Human Resource Factors, Supplier Relationship Factors							
c. Predictors: (Constant), Supplier Human Resource Factors, Supplier Relationship Factors, Suppliers' Operational Factors							

Source: Research Data, 2016

From the regression results in table 4.13 above, three models have been generated using stepwise approach where the probability-of-F-to-enter was ≤.050, while the probability-of-F-to-remove was ≥ .100. The stepwise multiple regression model number 3 or c is the most significant model since it has the inclusion of most supplier evaluation attributes whilst the results are significant at the set confidence interval of 99%.

It can be seen that the standard error of the estimated models keeps decreasing from 0.25 to 0.29 as so does the F values from 43.177 to 28.282. The adjusted R^2 also keeps on improving from 128.5 to 405.3. Although all the three models are significant, model number three is a good predicator of the relationship between supplier evaluation attributes and supply chain performance; where 55.6 % of the variations in supply chain performance can be explained by variations in supplier evaluation attributes. This implies that the supplier evaluation attributes explain 55.6 % of the changes in the firm's supply chain performance.

The coefficients of this predicative model aimed at addressing the relationship between supplier evaluation attributes and supply chain performance are given as in the table 4.14 below.

Table 4.14: Regression Coefficients (a) for Supplier Evaluation Attributes and Supply Chain Performance

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.379	.408		-.929	.359
	Supplier Human Resource Factors	1.074	.095	.889	11.339	.000
2	(Constant)	-.898	.172		-5.227	.000
	Supplier Human Resource Factors	1.828	.070	1.514	26.232	.000
	Supplier Relationship Factors	-.664	.051	-.752	-13.026	.000
3	(Constant)	-1.070	.160		-6.670	.000
	Supplier Human Resource Factors	1.645	.084	1.362	19.693	.000
	Supplier Relationship Factors	-.548	.057	-.620	-9.545	.000
	Suppliers' Operational Factors	.118	.037	.125	3.241	.003
a. Dependent Variable: Financial Performance of suppliers						

Source: Research Data, 2016

From the specific beta coefficients for the measures of supplier evaluation attributes in table 4.14 above, the following model is the predictive model on the relationship between supplier evaluation attributes and supply chain performance:

Supply Chain Performance = ***1.362 Supplier Human Resource Attributes – 0.620 Adversarial Supplier Relationship Attributes + 0.125 Suppliers' Operational Factors***

From the above model, both supplier human resources attributes and operational factors have a positive magnitude on supply chain performance, while supply chain partnership costs have a negative impact on supply chain performance.

Out of the five supply evaluation attributes, two of them were excluded from the model using the stepwise regression analysis. The two supplier evaluation attributes of cultural attributes and supplier performance were excluded from the model given their collinearity of 3.985E-005 and 0.930 respectively as in table 4.15 below.

Table 4.15 Excluded Variablesa for Supplier Evaluation Attributes and Supply Chain Performance

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Suppliers' Operational Factors	.354[a]	6.080	.000	.727	.882
	Supplier Cultural Factors	-1.146[a]	-2.225	.033	-.361	.021
	Supplier Relationship Factors	-.752[a]	-13.026	.000	-.915	.310
	Supply Chain Performance	.095[a]	1.180	.247	.201	.941
2	Suppliers' Operational Factors	.125[b]	3.241	.003	.497	.540
	Supplier Cultural Factors	-.618[b]	-3.047	.005	-.474	.020
	Supply Chain Performance	.049[b]	1.500	.143	.256	.930
3	Supplier Cultural Factors	14.688[c]	3.954	.000	.579	3.985E-005
	Supply Chain Performance	.049[c]	1.726	.094	.296	.930
Dependent Variable: Financial Performance of suppliers						
a. Predictors in the Model: (Constant), Supplier Human Resource Factors						
b. Predictors in the Model: (Constant), Supplier Human Resource Factors, Supplier Relationship Factors						
c. Predictors in the Model: (Constant), Supplier Human Resource Factors, Supplier Relationship Factors, Suppliers' Operational Factors						

Source: Research Data, 2016

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1Introduction

This chapter presents summary of findings as discussed in chapter four and interpretations of the data analysis, conclusions and recommendations based on the findings.

5.2 Summary of the Findings

From the findings, on the demographics it is established that out of the forty respondents, only thirty-six (36) respondents filled the questionnaires from eighteen (18) parastatals. This gave a response rate of 90%. This is an indication that all commercial state corporations were well represented in this study. Most of the respondents were female (61%) while 39% were male. This shows a fair gender distribution for the respondents and the employees in the procurement function. Most respondents were between 36-45 years which is an indication that there is need for succession planning as very few were 46-55 years. Majority of the respondents have a bachelors (44%) and masters (39%). This is an indication that the respondents who participated in this study were knowledgeable to understand and synthesize the issues of supplier evaluation attributes and supply chain performance. , most of the participants were in middle level management (61%) which matches their level of education. This implies the parastatals use merit to promote their employees and the majority of the participants understand the decisional issues addressed in supplier evaluation. Majority of the respondents have more than 7 years' experience in discharging their procurement function which implies that the respondents had a good grasp of the best practices in supplier evaluation attributes.

On the supplier evaluation attributes, commercial state corporations in addition to financial healthy they equally considers financial dependency, turnover and profitability levels when evaluating their suppliers. It was also found that that the commercial state corporation in addition to supplier's physical security and supply chain experience considers supplier's internal

processes, operational performance and delivery accuracy when evaluating their suppliers. Further, commercial state corporations emphasize a perfect cultural fit when evaluating their suppliers. Moreover, the commercial state corporation in addition to supplier's skills and experience of the management staff in evaluating their suppliers. Lastly, a commercial state corporation in addition to supplier's skills equally considers supplier's symbolic networking, risk sharing, price agreements in evaluating their suppliers.

On the relationship between suppliers evaluation attributes and supply chain using stepwise regression analysis established that 55.6 % of the variations in supply chain performance can be explained by variations in supplier evaluation attributes. This implies that the supplier evaluation attributes explain 55.6 % of the changes in the firm's supply chain performance.

5.3 Conclusion

From the analysis of findings we conclude that commercial state corporations pay a lot of attention to the suppliers' financial health and autonomy, the supplier's physical security and the supplier's supply chain experience, a perfect cultural fit, training programmes and the quality of the human resource management policies, and beneficial supplier-relationships and cost efficiency in an effort to improve their supply chain performance. Lastly, it was established the supplier evaluation attributes explain 55.6 % of the changes in the firm's supply chain performance.

5.4 Recommendations

Both supplier human resources attributes and operational factors have a positive magnitude on supply chain performance, while supply chain partnership costs have a negative impact on supply chain performance. Out of the five supply evaluation attributes, two of them were excluded from the model using the stepwise regression analysis. The two supplier evaluation attributes of cultural attributes and supplier performance were excluded from the model given their collinearity of 3.985E-005 and 0.930 respectively. There is need to explore other supplier evaluation attributes like the suppliers' automation attributes and service delivery attributes and

how they can influence supply chain performance. There is to conduct the same study in other sectors like manufacturing and service sector industries and firms.

5.5 Limitations of the Study

Some respondents feared to disclose information and thought will responding to questions in the questionnaires would be disclosing official and company information to a stranger. Funds were another limitation experienced in the study now that some of the participants could not be found easily following their busy scheduled, and that meant making several trips to the organization.

The sample size of the study was another limitation now that only officials of the organization were interviewed and just thirty six of them out the larger public sector. This is likely to lead to the findings of the study being biased and did to present the true picture of the Kenyan public sector.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

This study is intended to gather data regarding the supplier evaluation attributes and supply chain performance of commercial corporations in Kenya. Kindly provide answers to the following questions. The information you provide will be treated as highly confidential and will not be disclosed to any person. The information shall solely be used for research purpose. Tick √ where appropriate in all questions.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender

Male [ ] Female [ ]

2. Age

Below 25 years [ ] 26 -35 years [ ] 36-45 years [ ] 46-55 years [ ] Above 55 years [ ]

3 Highest qualification level

Diploma/Certificate [ ] Bachelor [ ] Masters [ ] Phd [ ]

4 Level Occupying In Management

Low level [ ] Middle level [ ] Top Level [ ]

5. Years of Experience as a Staff in Supply Chain

Less than 1 year [ ] 1-3 years [] 4-6 years [ ] 7-9 years [ ] 10 years and above [ ]

SECTION B: SUPPLIER EVALUATION ATTRIBUTES

6. To what extent has, your commercial state corporation used the following Financial Performance of suppliers in an effort to enhance its supplier evaluation attributes: Use the following scale where *1-Very Small Extent, 2- Small Extent, 3-Moderate Extent 4-Great Extent, 5- Very Great Extent*

Financial Performance of suppliers	1-Very Small Extent	2- Small Extent	3-Moderate Extent	4- Great Extent	5- Very Great Extent
All the suppliers we engage have minimal financial dependency on their clients	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Majority of our suppliers have no major loan capital issues	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Our firm has often engaged suppliers with high turnover and profitability	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Prior to making any agreement, the organization often performs a comprehensive evaluation of our suppliers' financial status	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The evaluation of the suppliers' financial performance has enabled the parastatal to reduce the procurement financial risk.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal always evaluates the suppliers' level of financial dependency on their clients.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal always performs finance evaluation of its suppliers annually.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal evaluates the supplier's turnover, profits, cash flow issues and loan capital level.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal regularly monitors the financial health of its suppliers.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Kindly provide any additional information on suppliers' financial performance that you think may be relevant to our analysis:					

7. To what extent has, your commercial state corporation used the following Suppliers' Operational Factors in an effort to enhance its supplier evaluation attributes: Use the following scale where 1-Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent

Suppliers' Operational Factors	1-Very Small Extent	2- Small Extent	3-Moderate Extent	4- Great Extent	5- Very Great Extent
The parastatal acknowledges the significant role played by supplier operational factors.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**

The operational aspects of suppliers are considered before signing supply contracts.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's location or country of origin in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's location or country of origin in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's shipment and delivery accuracy in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's supply chain experience in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's physical security in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's internal processes in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's environmental responsiveness in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's operational flexibility in its suppliers' evaluation.	(1)	(2)	(3)	(4)	(5)
Kindly provide any additional information on supplier operational factors that you think may be relevant to our analysis.					

8. To what extent has, your commercial state corporation used the following Supplier Cultural Factors in an effort to enhance its supplier evaluation attributes: Use the following scale where *1- Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent*

Supplier Cultural Factors	1-Very Small Extent	2- Small Extent	3- Moderate Extent	4- Great Extent	5- Very Great Extent
The organization often adopts positive supplier cultural evaluation prior to making any supplier engagement	(1)	(2)	(3)	(4)	(5)
There is a generally a perfect cultural fit between our firm and that of our suppliers	(1)	(2)	(3)	(4)	(5)
We always engage suppliers that have the same cultural values as those of our own (communication, commitment, process integration among others)	(1)	(2)	(3)	(4)	(5)
The organization has a high value for diversity outsourcing	(1)	(2)	(3)	(4)	(5)
Kindly provide any additional information on supplier operational factors that you think may be relevant to our analysis.					

9. To what extent has, your commercial state corporation used the following Supplier Human Resource Factors in an effort to enhance its supplier evaluation attributes: Use the following scale where *1-Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent*

Supplier Human Resource Factors	1-Very Small Extent	2- Small Extent	3-Moderate Extent	4- Great Extent	5- Very Great Extent
The parastatal analyzes the quality of the supplier's human resource management policies in its supplier selection.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's skills and experience of the management staff in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's staff compensation and satisfaction in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's presence of training programmes in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's number of days lost via industrial disputes in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's employees' turnover in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's adequacy of staff in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Kindly provide any additional information on supplier operational factors that you think may be relevant to our analysis.					

10. To what extent has, your commercial state corporation used the following Supplier Relationship Factors in an effort to enhance its supplier evaluation attributes: Use the following scale where *1-Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent*

Supplier Relationship Factors	1-Very Small Extent	2- Small Extent	3-Moderate Extent	4- Great Extent	5- Very Great Extent
The parastatal has formed alliances (price agreements) with suppliers	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal is constantly striving to strengthen supplier relationship through participation in personal, production and symbolic networking	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal's management award tenders to suppliers based primarily on their relationship with the firm	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal always make regular and prompt payments to all our suppliers	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's beneficial supplier-relationships in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
The parastatal considers the supplier's continuous improvement initiatives in its suppliers' selection process.	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**

The parastatal considers the supplier's cost efficiency in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's information sharing in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's mutual benefits and coordination of plans in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's price agreement in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's risk sharing in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
The parastatal considers the supplier's symbolic networking in its suppliers' selection process.	(1)	(2)	(3)	(4)	(5)
We often reward the best supplier every year	(1)	(2)	(3)	(4)	(5)
Kindly provide any additional information on supplier operational factors that you think may be relevant to our analysis.					

SECTION C: SUPPLY CHAIN PERFORMANCE

11. To what extent has, your commercial state corporation enjoyed the following benefits in its supply chain performance as a result of enhanced supplier evaluation: Use the following scale where *1-Very Small Extent, 2- Small Extent, 3-Moderate Extent, 4- Great Extent, 5- Very Great Extent*

Benefits In Supply Chain Performance	1-Very Small Extent	2- Small Extent	3- Moderate Extent	4- Great Extent	5- Very Great Extent
Our firm's order cycle time is very short	(1)	(2)	(3)	(4)	(5)
There is strict adherence to order planning schedules	(1)	(2)	(3)	(4)	(5)
Our firm has a lower lead time relative to the industry norm	(1)	(2)	(3)	(4)	(5)
We have a narrow range of products and services	(1)	(2)	(3)	(4)	(5)
Our order scheduling techniques are very effective	(1)	(2)	(3)	(4)	(5)
We always deliver our orders on time	(1)	(2)	(3)	(4)	(5)
We experience a minimum number of faultless notes invoiced	(1)	(2)	(3)	(4)	(5)
Our delivery systems are highly flexible	(1)	(2)	(3)	(4)	(5)
We tend to optimize our distribution costs	(1)	(2)	(3)	(4)	(5)
We take very short time to respond to our customer queries	(1)	(2)	(3)	(4)	(5)
We strive to produce high quality products to our clients	(1)	(2)	(3)	(4)	(5)
Kindly provide any additional information on supplier operational factors that you think may be relevant to our analysis.					

8. Kindly provide the following information to enable us compute the parastatal's supply chain performance index.

Supply Chain Performance Indicators	**Weight (a)**	**Unit of Measure**	**2013**	**2014**	**2015**	**Average (b)**	**Weighted Average (a*b)**
Capacity Utilization	**0.1**	**%**					
Customer Service Level	**0.1**	**%**					
Delivery Reliability	**0.1**	**%**					
Frequency of Delivery	**0.1**	**%**					
Information Costs	**0.1**	**Kshs.**					
Inventory Cost	**0.1**	**Kshs.**					
Order Cycle Time	**0.1**	**Days**					
Order Lead-Time	**0.1**	**Days**					
Product Development Cycle Time	**0.1**	**Days**					
Profitability (net profit)	**0.05**	**Kshs.**					
Range of Products Produced	**0.05**	**No.**					
Return on Investment	**0.25**	**%**					
Total Logistics Costs	**0.25**	**Kshs.**					
Total/Composite Score	**1.0**						$\sum_{I=1}^{n} a*b$

Thank you for Participating

APPENDIX 2: RESEARCH TIME FRAME

	Time (Weeks)					
Activities	**1**	**2**	**3**	**4**	**5**	**6**
Proposal writing						
Planning and mobilizing resources for data collection						
Data collection						
Data entry, editing and coding						
Data analysis						
Report writing and submission						

APPENDIX 3: BUDGET

Item	Quantity	Per unit cost (Ksh)	Total cost (Ksh)
Laptops	1	40000	40000
Modern	1	3000	3000
Travelling			10000
Research assistants	1	50000	50000
Printing services (materials and project)			3000
Stationary (pens and books)			1000
Miscellaneous expenses			5000
Contingency (10%)			11200
Total			**123200**

APPENDIX IV: MEAN FOR SUPPLIER EVALUATION ATTRIBUTE AGAINST THE SUPPLY CHAIN PERFORMANCE INDEX FOR EACH RESPONSE

Serial Number	Financial Performance of suppliers	Suppliers' Operational Factors	Supplier Cultural Factors	Supplier HR Factors	Supplier Relationship Factors	Supply Chain Performance Index
1	3.78	4	4	4	4.15	189.8
2	3.56	3.2	4	3.86	3.69	97
3	5	4.1	5	5	4.92	201.88
4	4.44	4.8	4	4	3.08	321.9
5	4.44	4.7	4.5	4.57	4.38	219.62
6	3.78	4	4	4	4.15	189.8
7	3.56	3.2	4	3.86	3.69	97
8	5	4.1	5	5	4.92	241.88
9	4.44	4.8	4	4	3.08	321.9
10	4.44	4.7	4.5	4.57	4.38	219.62
11	5	4.1	5	5	4.92	241.88
12	4.44	4.8	4	4	3.08	321.9
13	4.44	4.7	4.5	4.57	4.38	19
14	3.78	4	4	4	4.15	189.8
15	3.56	3.2	4	3.86	3.69	97
16	3.78	4	4	4	4.15	19
17	3.56	3.2	4	3.86	3.69	97
18	5	4.1	5	5	4.92	221.88
19	3.78	4	4	4	4.15	39
20	3.56	3.2	4	3.86	3.69	97
21	5	4.1	5	5	4.92	221.88
22	4.44	4.8	4	4	3.08	21
23	4.44	4.7	4.5	4.57	4.38	19
24	3.78	4	4	4	4.15	189.8
25	3.56	3.2	4	3.86	3.83	134.97
26	5	4.1	5	5	4.92	211.88
27	4.44	4.8	4	4	3.08	21
28	4.44	4.7	4.5	4.57	4.38	219.62
29	5	4.1	5	5	4.92	211.88
30	4.44	4.8	4	4	3.08	21
31	4.44	4.7	4.5	4.57	4.38	39
32	3.78	4	4	4	4.15	179.8
33	3.63	3.2	4	3.86	3.69	134.97
34	3.78	4	4	4	4.15	179.8
35	3.56	3.2	4	3.86	3.69	134.97
36	5	4.1	5	5	4.92	201.88
Composite Average	**4.224167**	**4.094444**	**4.305556**	**4.286111**	**4.082778**	**150.7308**

Source: Research Data, 2016