

EFFECTS OF SUPPLIER EFFICIENCY ON PROCUREMENT PERFORMANCE IN KENYA SEED COMPANY, KITALE, KENYA

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Abstract: Recruitment and keeping qualified suppliers is very important in procurement performance in any organization. However, many factors affect a firm's ability to determine and select the most efficient supplier. This study was undertaken with the main objective to assess the supplier selection and evaluation practices in the Kenya Seed Company. The study was guided by three specific objectives; to establish the criteria used for supplier evaluation in the Company; to find out the challenges of implementing Supplier Evaluation in the Company and to determine the relationship between Supplier Evaluation Criteria and procurement Performance in the Company. It employed a descriptive research design. The target population was 250 employees in the Company. A sample of 154 was selected to give response to the study. The response rate was 100%. Questionnaires were used to collect data which was analyzed using SPSS software version 20. Findings revealed that the Company base their selection on following criteria; quality of the supplier services, financial position of the supplier, flexibility of the supplier, supplier efficiency in service delivery, supplier charges, constitution and the PPOA guidelines, supplier technical capability, supplier profile, experience of the supplier in offering certain services/products as well as compliance with procurement procedures. However, supplier evaluation in these organizations is faced by several challenges including corruption, incompetent procurement officers, inefficiencies in procurement processes, lack of incentives, pressure of implementing PPOA and PPDA guidelines, cost of implementing procurement systems as well as maintaining procurement system greatly affects supplier selection process. The study recommended that the management of the Company need to effectively design the most effective evaluation criteria that would facilitate its procurement performance that ensured only most competent suppliers are selected and competent personnel are in place to manage supply chain processes in the organizations.

Keywords: Capacity management, financial ability, Procurement effectiveness Procurement skills and Quality assurance.

1. INTRODUCTION

Background

Supplier efficiency can be useful in enabling effective procurement decisions. This can be an essential component to success in any organization. This can help the accurate assessment of an organization's performance and, more importantly, identifies areas for improvement (Baker, Walker and Harland, 2007). The supply management leaders continue to seek the right method for measuring their organization's contributions and procurement process. The success

could be measured under category excellence, procurement organization services, people capabilities and planning future direction (Afonso, Schuknecht, and Tanzi, 2005).

This study suggested a best practice approach to overcome these challenges and consistently achieve procurement performance. It is also important to note that procurement is merely a process that internal and external factors are critical to its ability to produce outputs desired but it has no ability to create its own value and competitive output (Aggrey, 2011). Therefore there are factors that can influence procurement process. Further, the procurement process is a combination of categories resources that must be effectively converted to produce single outcome desired. Thus costs must be minimized throughout the procurement process by focusing on value addition, focus on total procurement efficiency and equitable reward distribution to key players in the process. This means that managers aim to create procurement organization satisfaction at the end point of delivery and continuous improvement of process. But this has not been easily achievable, as most organizations face dissatisfied procurement organizations, poor profitability and low sales turnover (Bartezzaghi and Ronchi, 2003).

Procurement involves finding, acquiring, buying goods, services and works from an external source. It involves specifications development, value analysis, supplier market research, and negotiation, buying activities, contract administration, inventory control, traffic, receiving and stores (Wittig, 1998). Although the desire of managers is to achieve sustainable performance, such desires are non-attainable. Supplier efficiency can enhance establishing drivers that define excellence that help in innovation, creativity and minimization of wastages (Bayens and Martell, 2007). It is also able to enable improvement in quality to provide satisfying goods and services to the procurement organization. But its inadequate use denies the understanding of its benefit in the organizational operations.

Supply chain leaders use strategic sourcing to contain costs and increase operational effectiveness across the enterprise. Effective category management ability can help organizations deliver quantifiable value in less time. Yet the inability of organizations to apply approaches that can enable them be leaders in containing costs, reducing supply chain risk, and increasing operational effectiveness across the enterprise is a challenge. These organizations lack ability to establish core drivers of strategic sourcing. They also perform poorly in aligning business goals and procurement organization requirements with supply market capability delivering quantifiable value in less time (Thai, 2001).

At the same time, most organizations struggle to leverage assessment of their excellence in procurement benchmark get a complete view of their procurement procedures and best practices (Van Weele, 2007). Moreover, they can discover improvement opportunities and can determine a strategic direction for positioning their procurement functions as a value add to corporate business objectives. They can evaluate their key dimensions and provide insights on how to improve and achieve procurement best practices and capabilities. Even though procurement aims to squeeze out costs of goods and services late in the product life cycle with a little arm-twisting of suppliers as necessary, not so much has been realized. Yet there is a smarter, more innovative way to cut costs, one that harnesses the power of procurement throughout the product life cycle.

Although procurement performance has been attracting great attention from practitioners, academicians and researchers, it is still recording unsatisfactory results (Chimwani, Iravo and Tirimba, 2014). The emerging practices are that public organizations do not apply procurement as a strategic element in improving their performances. This is a global challenge. The public sector is non-responsive to the strategic use of procurement, hence poor performance being recorded. In Kenya, for example, a wave of procurement performance begun in the year 2000, culminating into enactment of the Public Procurement and Disposal of Public Assets (PPDA) Act 2005, and regulations 2006. However, many government ministries and agencies have since not followed prescribed practices (Agaba and Shipman, 2007). The procurement audits revealed that out of 322 contracts audited by the end of 2005, only 7 (2%) were compliant.

Furthermore successive audit checks reveal that compliance in public procurement in Kenya is still inadequate (PPOA compliance reports, 2009; PPOA Baseline survey report, 2010; PPOA Capacity Building Strategy Report, 2011-2014; World Procurement Country Procurement Assessment Report, 2001). This is also supported by the African Peer Review Mechanism Country Review (APRM) Report (2009), which indicates that non-compliance with the regulations is very high in Kenya. Despite this evidently low public procurement compliance, not much focus has been placed on explaining non-compliance with public procurement regulations in Kenya (Eyaa and Oluka, 2011).

The goals of most organizations to lead in areas such as procurement organization service, people capabilities, cost performance and future direction setting are hardly obtainable. Organizations are struggling to overcome the challenges of sourcing strategic, complex categories to realize effective procurement operational effective. Yet the benefits of mastering the art of sourcing these challenging categories far outweigh the difficulties of the actual process (Tanzi, and Schuknecht, 2000). It means that on the surface, effective procurement performance is not there since most managers globally trail behind leading in procurement performance.

Realizing this performance is a big issue, as bottom-up reported outcomes often deviate from key performance domains expected. In order to make decisions based on the most strategic objectives of the organization, sourcing teams need to integrate many dimensions of information from areas well outside their domains. For example, if non-price factors like diversity or sustainability are part of the company's corporate social responsibility initiative, those factors can and should be part of sourcing strategies. However, through supplier efficiency tools, the latest in advanced scenario planning, leading-edge analytical tools, and comprehensive supply management approaches, organizations can deliver double the financial benefits across spend categories and inform the business strategies of their company. Yet the use of supplier efficiency is not strategically aligned to procurement at the same time, studies on the same issues are limited creating the knowledge deficit denying the practitioners opportunity to have information to make practical decision (Trionfetti, 2000).

Creating a focused list of objectives for any procurement function which will result in improved efficiency is also proving difficult for most managers. Obtaining a value creating and competitive outcome list selection is hardly convincing owing to the poor record of performance achieved from such objectives and initiatives. Various studies on procurement performance identify the key challenges that companies currently face in determining procurement performance (Little, 2009). Despite evidence showing benefits procurement systems, many organizations are still unable to realize these benefits. Most of these organizations are unable to achieve desired outcomes through procurement as a strategic tool to realize competitive performance. It means that management of most organizations fails to appreciate the importance of system-wide performances.

During a downturn, when companies must consider every avenue for cutting costs in order to survive, the procurement department plays an increasingly important role in achieving this strategic goal (Best, and Khan, 2000). A procurement performance figure benchmarks the target achievement within the organization while functioning at the same time as a key performance indicator for the control and allocation of liquidity respectively assets. Largely driven by end-user demands, quality outputs, outcomes and the need to stay competitive, the speed at which business is conducted on the international stage shows no sign of diminishing, putting increasing pressure on supply chains to function equally efficiently. With this, come the challenges of integration, consolidation, automation and ultimately sustainability.

Success in the area of procurement, however, still depends on the in-depth knowledge of the product being procured and the industry that produces it. End-user organizations would do well by sticking to what they know best, and to forge long-term partnerships with expert supply chain management service providers that can take care of the rest on their behalf. This is further complicated by the fact that Procurement process is not as simple in the competitive business environment as getting goods from one location to the other. This environment is about understanding and manipulating an overwhelming set of variables to achieve a deceptively simple result, delivering on-time and within budget outcomes (Berthoud, 2002).

Critical to this is a requirement that underpins all current trends in the industry: understanding the product. The stronger this knowledge on the part of a procurement performance provider whether it's an internal or an outsourced function within the end-user organization the better and more consistent the results. But without this basic expertise, the outcome can quickly become catastrophic (Bovaird, 2006).

In Kenya, buyer-supplier relationships gained attention future goals to the organization, measure their performance, and satisfy the goals of their users is desirable but not attainable in the current practice.

Each stage in the product life cycle typically requires a different procurement strategy to address the challenges of buyers and suppliers. At product introduction buyers want access to suppliers' ideas while also addressing the risks of unproven technologies. Suppliers need to know how much money and resources to commit to R&D and the potential return on investment. In the growth stage, buyers want to secure volumes and ensure exclusivity, while suppliers must meet increased demand and ensure the demand is not short-term in order to maintain continuous returns on their investments

(Brulhart, and Trionfetti, 2004). At product maturity, buyers need to optimize costs internally and externally to beat the competition, while suppliers focus on maintaining margins and volume. Finally, as a product declines, buyers want to avoid the burden of having unusable material on hand, while suppliers turn their attention to generating new business and revenues. The task for procurement, and the organization as a whole, is sustaining maximum value from both suppliers and procurement organizations as each product moves through its life cycle.

Moreover, organizations still fail to achieve competitive advantage that is people driven. Since procurement performance requires human capital inputs, inability of this resource to create value and quality is a threat to stable outcomes. The procurement process in the public sector has poor people capabilities. This has created the inability to establish and manage talent that creates value for organizations. Also talent management is ineffective at many organizations because it continues to be grounded in 20th century paradigms that are not aligned with today's business imperatives. It also does not reflect a deep understanding of the complexity, diversity, and motivators of today's workforce, especially in the performance of procurement.

While people can drive procurement to its top most performance level through innovative solutions that build differentiated capabilities and deliver business strategy performance required. According to Bovaird (2006) inadequate use of supplier efficiency to be innovative and creative is a threat to improving the talent and value creation by procurement team. Hence the need to create a productive, engaged innovative workforce with the right skills in the right place at the right cost for improved procurement performance is challenged. Organizations therefore have failed to achieve strategic procurement function forcing them to lock the huge reserve of latent productivity in their workforces and dramatically unable to improve their ability to innovate and succeed. Also the desire to create high-value links between the organization's people, strategy, and management to reach a sustainable transformation performance is not achievable. This means that the ultimate ability of these people to drive procurement outcomes forward to gain competitive advantage through people is a dream hardly realizable. This is an ever-lasting challenge, leading to complex issues since culture and the mindset are fragile yet intrinsic components of any organization (Birou, and Croom, 2008).

Production is an important sector in Kenya and it makes a substantial contribution to the country's economic development. The producing firms depend largely on their suppliers to avail quality raw materials at the right time (Dutta, 2008). Producing firms depend to a larger extent on their suppliers to avail the right products, in the right quality, quantity and in the right time. Ideally procurement ought to be fast in responding to their procurement organization needs. However, in many cases, procurement slackness and laxity in responding to procurement organization needs has been a common occurrence. This has a negative impact to the procurement performance. Hence, it is paramount for firms to create relationships that boost the way procurement respond to them.

Kenya being an agricultural economy dependent, a steady supply and distribution of farm inputs is critical. Kenya Seed Company plays a major role of seed production and distribution through its supply chain. Seeds have the greatest potential capacity of changing agricultural productivity leading to sustainable food security. Hence a procurement process that enhances reception of quality seeds, quantity that meets the market demand, procurement organization requirements, innovation and creativity as well as easy adaptation to technological development is important. As a government managed company, its procurement follows the public procurement act 2005 and regulations 2006 but inadequate, a problem facing most government managed institutions (PPOA, 2015).

Its mandate is to research, develop, market and avail certified top quality, high yielding agricultural seeds of various varieties within Kenya, the Eastern African region and beyond. But often, farmers complain of not receiving quality seeds leading to farm losses (Driedonks, Gevers, and Van Weele, 2009). Further, farmers are not always able to access adequate quantity forcing them to resort to non-certified seeds (Head, 2003). Although Kenya Seed Company is a major segment of agricultural sector Kenya, as agriculture is the backbone of Kenya, its ability to use approaches that enhance quality improvement, category excellence, people capabilities, procurement organization service and future direction is not often automatic. The production and distribution of high standard quality seeds that meets farmers demands is a necessity yet often not promised.

The company has also diversified its products and currently has over 60 seed varieties of maize, wheat, sunflower, finger millet, horticultural seeds and legumes. In addition the company recently released other seed varieties which include; Upland rice, sesame seed, proso millet, sugar beet, white sorghum, groundnuts, pigeon peas, cotton and climbing beans.

Apart from seeds production, Kenya seed Company also comes up with the best cattle breeds both beef and dairy; through artificial insemination. The company provides extension services to both dairy and beef cattle farmers with aim of upgrading the farmer's cattle breeds (Murray, 2007).

Kenya Seed Company focuses on breeding, producing and selling seeds certified by the Kenya Plant Health Inspectorate Service (KEPHIS). It regulates seed production in Kenya ((Funk and Wamache, 2012). Even though 66% of all maize seeds and 85% of all rice seeds are certified, the non-certified seed supply account for 78% of the total volume while the certified seed supply account for the remaining 22% (Kenya Seed Industry Study, 2013). The certified seed supply is dominated by Kenya Seed Company, a government-owned entity which holds an estimated 70% of the Customer Service. The company is therefore mandated to produce certified seeds which are then made accessible to farmers all over Eastern African region and beyond.

A well-functioning seed production and distribution system is one that uses the appropriate combination of formal, informal, market and non-market channels to efficiently meet farmers' demands for quality seeds. Even though Kenya has one of the most developed seed system with ninety three registered seed companies who research, produce and process seed, the high cost of seed relative to other purchased inputs and inability to meet the demand by farmers have been cited as bottlenecks to the seed industry (Nyoro and Ariga, 2004).

The Kenyan seed industry is a part of the agricultural sector that contributes directly 29.5% of Gross Domestic Product (GDP) and 60% of export earnings. The sector contributes indirectly a further 27% through links with manufacturing, distribution and service related sectors in addition to providing employment to 75% of the Kenyan population (Kenya National Bureau of Statistics, 2014). The Kenya seed industry on the other hand has experienced tremendous challenges in ensuring seed products are delivered to procurement organizations on time. According to the Kenya seed industry study (2013), growth in the agricultural sector decelerated in 2013 to 2.9 percent from a revised growth of 4.2 percent in 2012 partly due to the high frequency of machine breakdowns of the major processing plants.

This led to late delivery of seed to the farmers' way past the planting season that as a result led to low yields. Even though fake seeds have also contributed to the low productivity in the recent years, seed processing companies have adopted approaches and technologies that have ensured fake seed is detected by the farmers. For example, Kenya Seed Company, one of the major providers of seed has developed a Short Message Service (SMS) that enables farmers detect fake seeds before buying them. This has gone a long way to ensure high quality seeds are available in the market.

Supplier efficiency is still a new concept in the Kenya Seed industry as most companies are still using the traditional approach that sees maintenance as a secondary process and a cost that needs to be reduced. According to Rich (1997), the traditional approach allows for a culture which is insular and detached from the commercial requirements of the business. This traditional approach must be revised to ensure the organizational wide approach to improved procurement performance. Procurement remains one of the very few areas through which significant increase in company profits can be achieved. McGuin (2008) observes that robust procurement Capacity can be the difference between ongoing profits and impending downfall. This can be realized through machine maintenance and repairs costs, cost of materials, satisfied procurement organization service, category excellence and people capabilities as well as future direction.

Statement of the Problem

Procurement performance has attracted attention of researchers and academicians yet it is recording poor outcomes. Many firms would want to increase their performance levels but the means to do it is always a challenge. Most organizations are unable to strategically use supplier efficiency tools in their procurement improvement goals. Although procurement was introduced in organizational process to speed up purchasing, lead time, enhance quality achievement, and standards compliance, not much has been achieved. There is poor performance in relation to procurement organization services, category excellence, people capabilities and future directions. Although some factors such as supplier efficiency can offer tools that drive realization of tangible outcomes, its use currently is inadequate.

Kenya Seeds Company holds inventories of items that require frequent replenishment and a frequent contact between them and their suppliers. Past studies have inadequately investigated supplier efficiency management practices especially in Kenya Seed Company in the Kenyan context. Apart from that there is lack of literature on the procurement dimensions presented here as well as supplier efficiency dimensions. Therefore it is not possible to understand any influence between

the two variables from the current approaches under practice. This has created a knowledge gap that needs to be investigated. Therefore this study tries to close this gap by studying the supplier efficiency dimensions that include value in use, product quality, service delivery and supplier capability and technology. The procurement performance dimensions include procurement organization services, category excellence, people capabilities and future directions. Therefore this study explored the effects of independent variable measured on the four dimensions on the depended variable.

Therefore the purpose of this study was to investigate the effects of supplier efficiency on procurement performance in Kenya Seed Company, branch in Kitale. This is a public institution that is tasked to manufacture seeds and distribute to the procurement organizations countrywide.

Objectives of the Study

General objectives:

To investigate the effects of supplier efficiency on procurement performance of Kenya Seed Company, branch in Kitale.

Specific objectives of the study:

1. To establish the criteria used for supplier evaluation in Kenya seed company
2. To determine the challenges of implementing supplier evaluation in Kenya seed company
3. To determine the relationship between supplier evaluation method and procurement performance in Kenya seed company

Research Questions

The research questions were:

1. What are the criteria used for supplier evaluation in Kenya Seed Company?
2. What are the challenges encountered in implementing supplier evaluation in Kenya Seed Company?
3. What relationship exists between supplier evaluation criteria and procurement performance of Kenya Seed Company?

Justification of the study

The findings of study were of great importance to the management of Kenya Seed Company and other governmental and nongovernmental organizations that engage suppliers in the provision of goods and services. The study findings provided valuable insight into how to choose suppliers in order to achieve better procurement performance.

The findings of this study also contributed to informed decision making in relation to supplier efficiency and procurement success. Once this is achieved, it enhanced improvement of procurement organization service, people capabilities, category excellence and future direction. Moreover, this study was useful to academicians to gain skills and experience on the study gap that need to be filled as was suggested in this study. This study provided academic knowledge that was useful for reference to future researchers. It also helped researchers to know the kind of challenges the current researcher faced and the future direction that need to be observed.

2. LITERATURE REVIEW

Theoretical Framework:

This study was guided by the theories underlying to the concept of performance management;

Agency Theory:

This theory is concerned with agency relationships where two entities have an agency relationship when they cooperate and engage in an association where in one party delegate's decisions and work to another to act on its behalf (Rungtusanatham *et al.*, 2007). The important assumptions underlying agency theory are that: potential goal conflicts exist between principals and agents; each party acts in its own self-interest; information asymmetry frequently exists between principals and agents; agents are more risk averse than the principal; and efficiency is the effectiveness criterion (Eisenhardt, 1989; Ekanayake, 2004; Rungtusanatham *et al.*, 2007). The agency theory is widely used in procurement,

Cliff Macure and Eric Prier did a study on using agency theory to model cooperative public purchasing and the operational linkages between government organizations, their purchasers and their suppliers are vied as important contributors to the success of government policy and decision-making.

In a supply chain relationship the buying firm delegates the authority of supply of goods and services to the supplier. These two parties engage in an agency relationship (Starbird, 2001; Zsidisin and Ellram, 2003). Along with the delegation of supply of goods and services, the responsibility of maintaining satisfactory quality of the supplied products and services is also delegated to suppliers. The buying firm needs to ensure that suppliers provide products and services that conform to the quality requirements stipulated in the supply contracts. Moreover, competition these days is becoming supply chain versus supply chain rather than firm versus firm (Ketchen and Hult, 2007), so firms are working to increase procurement organization satisfaction and gain competitive advantage by finding ways to improve the whole supply chain, from suppliers to end consumers.

Strategic efficiency management of supply chains not only ensures the quality of supplies, but also enhances the capabilities of suppliers' efficiency. Supplier efficiency involves frequent, continuous interactions between buying firms and their suppliers in tackling various issues as negotiating contractual provisions related to quality requirements, penalties and inspection policies, specifying requirements on the supplier's quality qualification and certification, and collaborating on product design and process improvement (Flynnand, 2005; Kaynak and Hartley, 2008; Kuei *et al.*, 2008).

An agency theory is useful in understanding the use of management mechanisms for Supplier efficiency and the attributes of supply chain relationships. In the process of supplier efficiency, buyers in agency relations are faced with potential problems. By their nature, buyers expect suppliers to provide good quality and to improve the quality of supplied products and services. But suppliers may be reluctant to invest substantially in efficiency achievement, especially if they perceive that buyers are reaping all the benefits. The difference in interest between buyers and suppliers will result in the two parties concerning themselves only with their self-interests. At this point moral hazard and adverse selection problems are likely to arise (Zsidin, 2006; Robinson and Malhotra, 2005; Starbird, 2001).

When buying firms cannot constantly monitor the process at suppliers' sites, which is usually difficult and expensive to do, suppliers may conceal their difficulties in delivering the quality demanded by buyers. This can lead into adverse selection, and slight efforts to control and improve the product and process quality as expected. Furthermore, buyers and suppliers may have different attitudes toward risks associated with quality failures, especially those that occur after sales to end consumers. This leads into risk-sharing issues between buyers and suppliers situation (Mentzer, 2001). Thus, when making decisions about supplier efficiency, buyers need to assess the nature of their buyer-supplier relationships in order to select the appropriate management mechanism.

Although cooperative purchasing has been a topic of study for many years (Wooten, 2003), researchers revisited issues related to cooperative public purchasing (CPP) in search of more clarification on with respect to its theoretical underpinnings (Aylesworth, 2003). Perhaps due to little theoretical direction and few standards to guide practice, to inform on concisely about what comprises cooperative procurement and its implications for public purchasing. Indeed, John Ramsay and Nigel Caldwell (2004) make a strong case that metaphors so often used can lead to misunderstanding the nature of interesting phenomenon. It is no different in public purchasing, as slight misconceptions about institutional goals and to whom one is accountable may in fact have significant organizational consequences.

Since CPP can be thought of as a chain of agency relationships similar to the contractual relations found within the economic firm, valuable questions arise as to the best way to organize the stakeholder relationships in public procurement. This relationship is conceived as the modern perspective of a system of relationships which directs production. This implies that a firm is more efficient at aligning resources with outputs than is the market. Procurement can be arranged through the market and regulated by the price mechanism with all of its attendant hidden costs to the procurement official, or the exchange transactions of procurement can be vertically integrated and ordered through the firm in a hierarchy where purchasing is integrated with the needs for the same products by other principals (Harold Demsetz, 1983).

Thus agency theory can expose the motivations of stakeholders in public procurement. Agency theory generally assumes that actions and efforts are normally unverifiable, while outcomes are generally known and confirmable (Dixit, 2002). In terms of CPP, the effort of the procurement official is verified only when the outcome (the purchase) is obtained. However, it will be shown that the action, as opposed to the outcome, may not be readily distinguished by the

stakeholders. Consider that although the procurement official might believe that the actual purchase is an outcome,” the purchase is merely considered an “action” from the viewpoint of the stakeholder for whom the purchase was made. In other words, the level of analysis is important in determining what behaviour is an “action” as opposed to an outcome. Another reason why agency theory is a fruitful method for modelling public purchasing is that it helps to identify the various incentives of the stakeholders. By clarifying the opportunities and constraints they face, there is hope that efficiency, effectiveness and accountability will be increased.

The theory essentially acknowledges that different parties involved in a given situation with the same given goals have different motivations, and that these different motivations can manifest in divergent ways. It states that there was always partial goal conflict among parties, efficiency is inseparable from effectiveness, and information was always somewhat asymmetric between principal and agent. The theory has been successfully applied to myriad disciplines including accounting, economics, politics, finance, marketing, and sociology (Nikkinen and Sahlström, 2004).

This theory is relevant to the study because all organizations have people who explain their differences in behaviour or decisions by noting that the two parties often have different goals and, independent of their respective goals, may have different attitudes toward risk. Sections of organizations interact amongst themselves in exchange of key information and materials (Midwinter, and McGarvey, 2001).

Various studies have been conducted in the area of supplier monitoring and evaluation Ho *et al.*,(2007) for instance investigated the contribution of Supplier Evaluation and Selection Criteria in the Construction Industry in Taiwan and Vietnam and found out that non-quantifiable criteria play a very important role in the selection process and that the construction companies with the common appraisal criteria being product quality, product availability, delivery reliability, product performance, product cost and service after sale (Ogula, 1998).

Quality Management Theory in Procurement:

According to Heizer and Render, quality is the ability of a product or service to meet procurement organization or user needs. Quality can mean excellence, meeting procurement organization requirement, quality as value, procurement organizations perception and adoption to expectation. Hansen (2001) lamented that it is unfortunate that until today the concept of quality appear fragmented and ambiguous in literature as in practice. The term quality management has different meaning within many business sectors. It is considered to have four main components: quality planning, quality control, quality assurance and quality improvement. The model is based on the concept that an organization achieves better results by involving all people in the continuous improvement of their processes. Investors in people have drawn attention to the importance of employees’ engagement for building effective relationship between an organization and its people. Cascading the vision and direction of the organization is one of the strongest levers for generating improved performance (Mullins, 2010)

When the purchasing department is looking at the procurement of materials from suppliers they will have been given some guidance by the manufacturing department, research and development, or the quality department. This should include a variety of information about the item to be sourced, such as physical description, dimensional measurements, chemical composition, performance specifications, and standards to conform to, or even the brand name of the product (Stiglitz, 2000). The purchasing department must know the physical attributes of the part they are required to source. For example, if the required material must be made of a certain shade of a blue, then the purchasing department must be able to communicate that requirement to the potential suppliers to ensure that the specification can be met. Sometimes the quality department or development team will inform the purchasing department to only source a particular brand name. This may be due to the specific nature of the part made by one company or the level of quality it has over competitors.

Conceptual Framework:

The independent variables for Supplier efficiency (SE) include: suppliers’ commitment to quality, suppliers competency and financial stability. These variables would be explored to establish their influence on procurement performance in Kenya Seed Company branch in Kitale, Kenya.

Independent variables

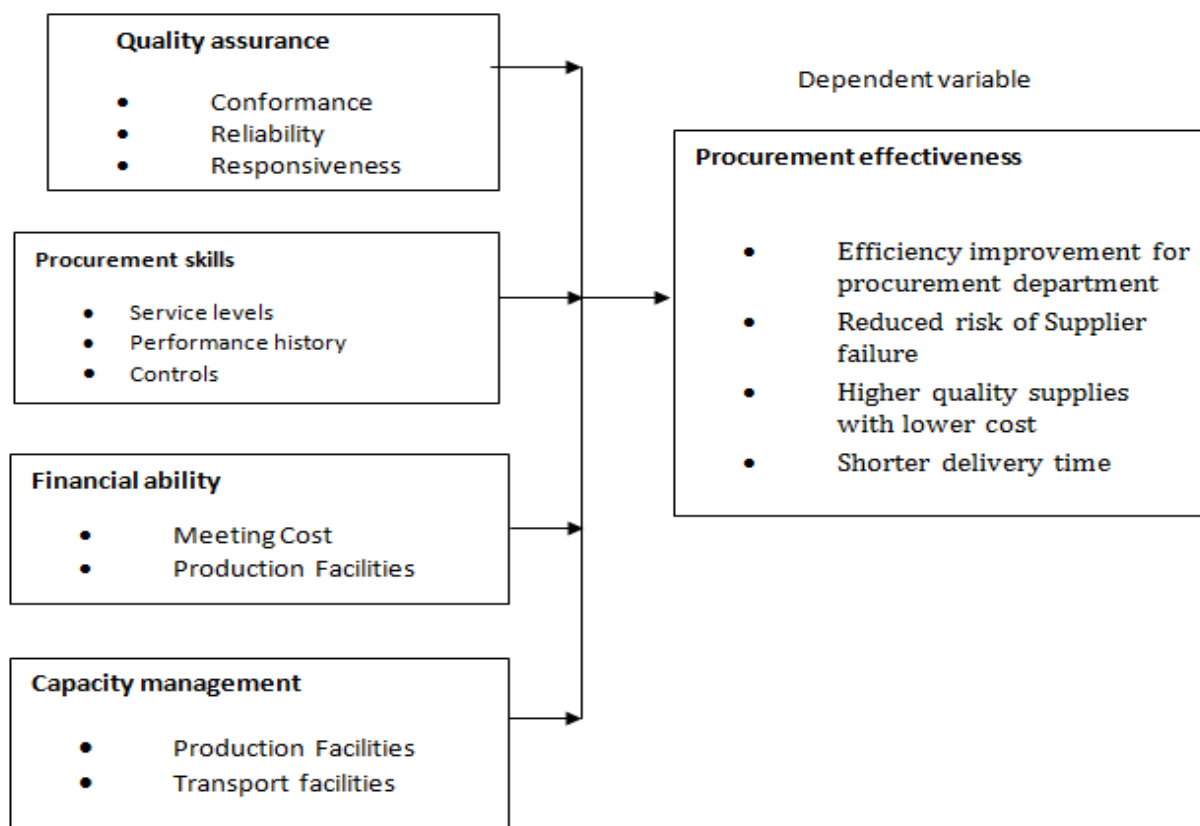


Figure 1: Conceptual Framework

Chapter Summary:

Performance management is a challenge to most modern organizations. The desire to maintain steady performance is not always automatic. However, use of many factors such as Supply chain management has become widely recognized as an important contributor to performance improvement, helping firms meet the challenges of an increasingly competitive and dynamic environment. These pressures have driven companies toward forming closer relationships with a smaller number of suppliers who have become increasingly involved in many aspects of strategy making and day-to-day operations.

These relationships are highly interactive and need continuous monitoring and inter-personal liaison between suppliers and buyers and consumers in order to be efficient and effective. To be successful, organizations no longer operate in isolation by only relying on its own performance; they are highly dependent on the performance of other actors in the supply chain as well, not least the suppliers. The growing importance of the suppliers in a company's supply chain increases the need for supplier performance assessment. Successful approaches through strategic supplier use can make it possible for companies to meet customer needs more quickly, less expensively, and through more channels, providing better-Organizational, more reliable goods that reach the market sooner. Such moves can make mass customized products and services a reality. Continuous supplier monitoring helps companies assess whether the suppliers manage to fulfil the sufficient level of performance that is required by the buying firm.

3. RESEARCH METHODOLOGY**Introduction:**

This chapter explains the research methods that were employed to undertake this study using appropriate statistical techniques. It included research methodologies, sampling procedures employed and its justification, research population or sample size that was used and also the statistical techniques that were used for the analyses of the data.

Research Design:

This study employed exploratory study design. The exploratory design was useful in assessing whether there is supplier efficiency. This enabled the formulation of a precise problem for investigation and developing the study hypothesis. It also enhanced presentation of information regarding the immediate conditions, presentations of crucial issues, study of the unknown fields, theoretical base, and presentation of uncertain problem for study in research.

Target Population:

According to Ngechu,(2004) a population is a set of objects, people, services, elements, or households under investigation. Kothari, (2004) defines population as all items in a field of enquiry. The target population of this study was 250 employees of Kenya Seed Company in Kitale. The respondents were drawn from all the departments within the company since the efficiency of the suppliers can be experienced in the entire organizations (See Table 3.1).

Sample Size and Sampling Procedure:

According to Kothari, (2004), the sample size should be optimum in order to fulfil the requirements of Technical, representation, reliability and flexibility. While deciding sample size, the researcher determines the desired precision as also an acceptable confidence level of the estimate (Kothari, 2004). Mugenda and Mugenda, (2004) recommends 10% of accessible population were adequate. At least 10% sample of the population is considered a generally acceptable method of selecting samples in such a study (Stanley and Gregory, 2001). Kerlinger (2009) states that a 10% sample allows for reliable data analysis and provides desired levels of accuracy for testing significance of differences between estimates. Empirical study by Roscoe (1975), suggests that sample size should be larger than 30 and less than 500.

The sample size of this study was 154 respondents, which was picked through simple random sampling. Using confidence level of 95%; level off error of 5% and the target population of 250, the simple random calculator generated a population of 154. This was be confirmed by the calculation of the formula given below that generated 154 and some decimal numbers this was rounded up to whole number generating 154. The participants were asked to voluntarily participate in the study by answering a questionnaire and the interview questions. This sample size produced adequate data for analysis and in making conclusive generation. Simple random sampling method was used to select respondents from various strata. Gay (2002) identifies random sampling as the best form of sampling as it allows all members of population to have an equal and unbiased chance of appearing in the sample.

This subsection covers the sample size and sampling technique. A sampling frame according to Cooper and Schindler is a list of elements from which the sample is actually drawn and is closely related to the population. A sample size was determined based on these registrants. A formula propounded by Cochran (1963) will be used to determine the size as follows;

$$n = \frac{N}{1 + Ne^2}$$

Where; n – is the sample size

N – is the population size

e – is the level of precision (95%; e = 0.05)

Given that N=250 (see Table 3.1); $e^2=0.05^2$ Therefore $n= 250 \div [(1+ [(250*0.05^2)] = 153.8462$ approximately 154, hence from the above a sample of 154 respondents that was selected for the study. The Institute of Economic Affairs (2009) defines a sample size as a function of logistics and homogeneity or heterogeneity of the population.

According to Sekaran (2006) adequacy, means the sample should be big enough to enable reasonable estimates of variables to be obtained, capture variability of responses and facilitate comparative analysis. Kothari (2004) recommends any large sample to be at least 10% of the target population. The sample of 154, which is 61.6% of target population, was therefore adequate to address the objectives of the study. The sub-sample in each stratum will be calculated by multiplying the stratum population with the sample proportion as shown in Table 1.

Table 1: Sample population and sample size:

Category of Population		Determination	Sample Size
1. Top Level management	10	(10/250)*154	06
2. Middle Level	60	(60/250)*154	37
3. Operational Level	180	(180/250)*154	111
Total	250		154

Data Collection Procedure:

Data was collected through an administration of questionnaire distributed to the sample group of 250 participants and to an extend interview was applied where there was need for further clarification. The respondents were asked to answer questions without regard to gender, age, or qualifications. The questionnaire is preferred due to its ability to collect data from a large group within a short time.

Data Collection Instruments:

The instrument used is the questionnaires. The questions covered areas of objectives of the study and the conceptual framework. Both primary and secondary data was used to obtain information for the success of this research. Primary data obtained through self- administration of questionnaires and. The respondents were required to fill the designed questionnaire so as to assist the researcher with the data that were needed in the study. The questionnaire included questions and statements. Secondary data was obtained from research journals and the company reports and documents.

Data Analysis and Presentation:

This study adopted both qualitative and quantitative analysis in order to achieve the objectives of the study. Descriptive methods were employed. The data was organized in tabular form and represented in frequency distribution tables and percentage distribution of the respondents. Quantitative techniques (frequency tables and charts) were used for the presentation of quantifiable data that will be presented textually using descriptive and inferential statistics.

The questionnaires was collected and counted to ensure that all respondents had answered and completed the questions. The returned questionnaires was coded and captured on the computer. De Vos, *et al.* (2007) describes data analyses as the process of bringing order, structure and meaning to the mass of collected data. Questionnaires received from respondents, content analysis and interview schedules will be checked for completeness with repeat calls being made for incomplete questionnaires to maintain the number of respondents. Categorization and coding was then being one and data entered into SPSS for windows version 20 for analysis. Both descriptive and inferential tests were used in the analysis. Data was described or summarized using descriptive statistics such as mean and frequencies, which helped in meaningfully describing the distribution of responses. Various inferential statistics were used to infer population characteristics from the sample. Pearson's correlation coefficient was used to establish relationships between variables.

A multiple linear regression model was used to predict procurement performance using the four independent variables in the study: value in use, product quality, service delivery and supplier capability and technology. In addition, the β coefficients for each independent variable generated from the model will be subjected to a z-test, in order to test each of the hypotheses under study. The regression model used to test is shown below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots \dots \dots + \beta_n X_n + e$$

Where; Y – Procurement Performance (PP)

α - Constant

$\beta_1, \beta_2, \beta_3$ and β_4 - Coefficients

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

e - Error term

All the above statistical tests were analyzed using the Statistical Package for Social Sciences (SPSS), version 20. All tests were two-tailed. Significant levels were measured at 95% confidence level with significant differences recorded at $p < 0.05$.

4. DATA FINDINGS AND DISCUSSIONS

Response Rate:

All 154 questionnaires distributed to the public procurement department staff were dully filled and returned with minimal errors. The responses to the questionnaire were analyzed as follows:

Gender of the Respondents:

The study sought to determine the gender distribution of the respondents in order to establish if there is gender balance in the positions indicated. The findings were as indicate in Figure 4.1. According to the findings, majority (58.44%) of the respondents were male while the rest (41.56%) were female. This implies that though there is gender distribution in occupation most of the positions are occupied by the male.

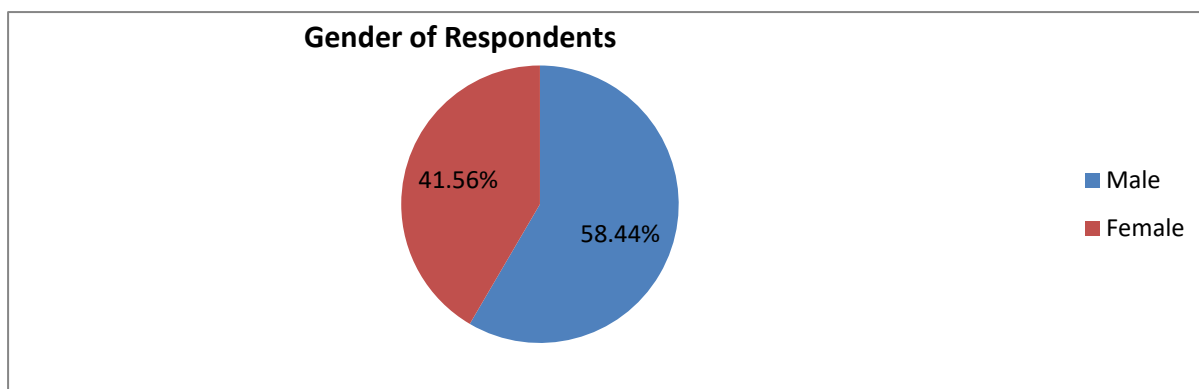


Figure 4.1: Gender of the Respondents

Age of the Respondents:

The study further established respondent's age distribution categorized in a certain range. This was to determine how age relates to procurement practices based on experience. The findings were as indicated in Figure 4.2. Most (38.96 of the respondents' were within the age bracket of 26-35 years, 25.97% were aged between 35-45 years, 20.12% were 45 years and above while the rest (14.93%) were aged between 18-25 years. This implies that most of the employees are energetic such that they can adjust to the strategies adopted within the organization and also that they are experienced enough to give appropriate answers concerning the study.

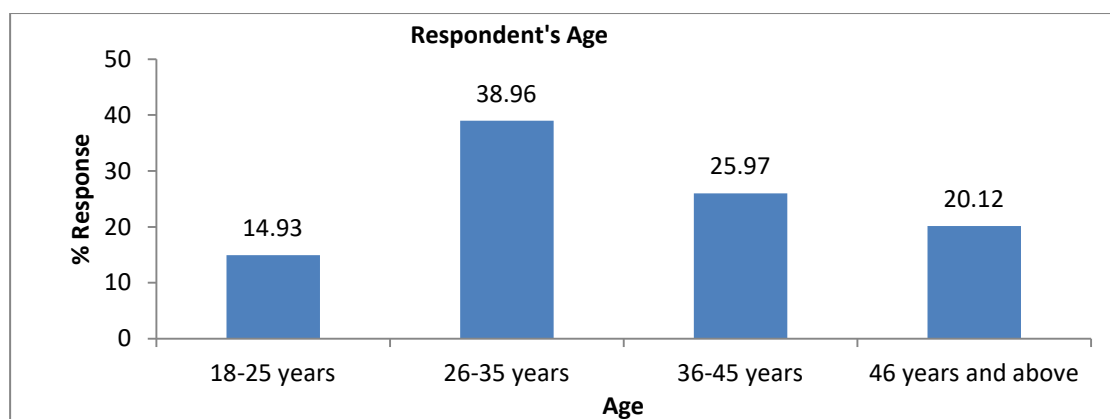


Figure 4.2: Age of respondents

Duration in the Organization:

The study found it necessary to find out the number of years in which the respondents had worked in organization. This was to determine if their responses could be relied upon to make study conclusions about the variables under concern due to their longevity in the organization. The findings were as indicated in Figure 4.3

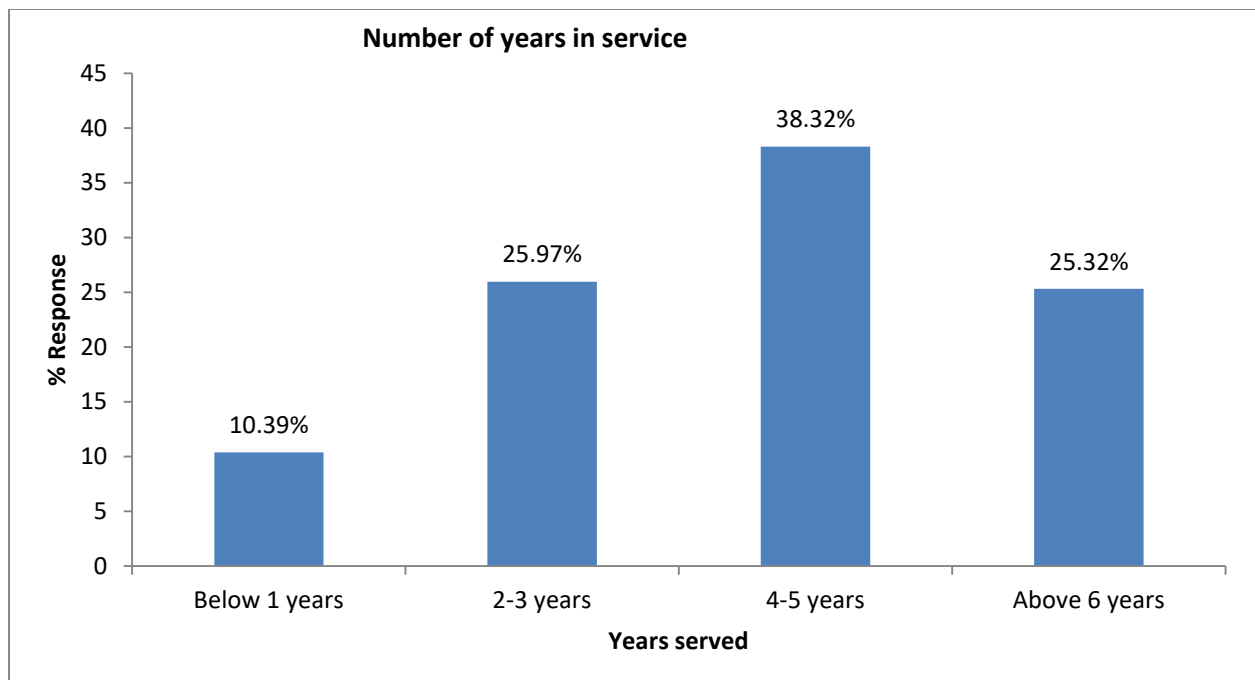


Figure 4.3: Years in service

From the findings, most (38.32%) were in the organization for 4-5 years, 25.97% for 2-3 years, and 25.32% for more than 6 years while the rest (10.39%) had worked in the organization for less than a year. This implies that majority of respondents have been in the organization for a good duration and could therefore be familiar with the procurement practices. Also this implies that these are experienced employees who could have given the relevant information to the study area.

Level of Education:

This section sought to determine the respondents' level of education. The researcher also requested the respondents to indicate their highest level of the academic qualification. This was to ascertain if they were well equipped with the necessary knowledge and skills in their respective areas of specialization. Figure 4.4 shows the findings of the results.

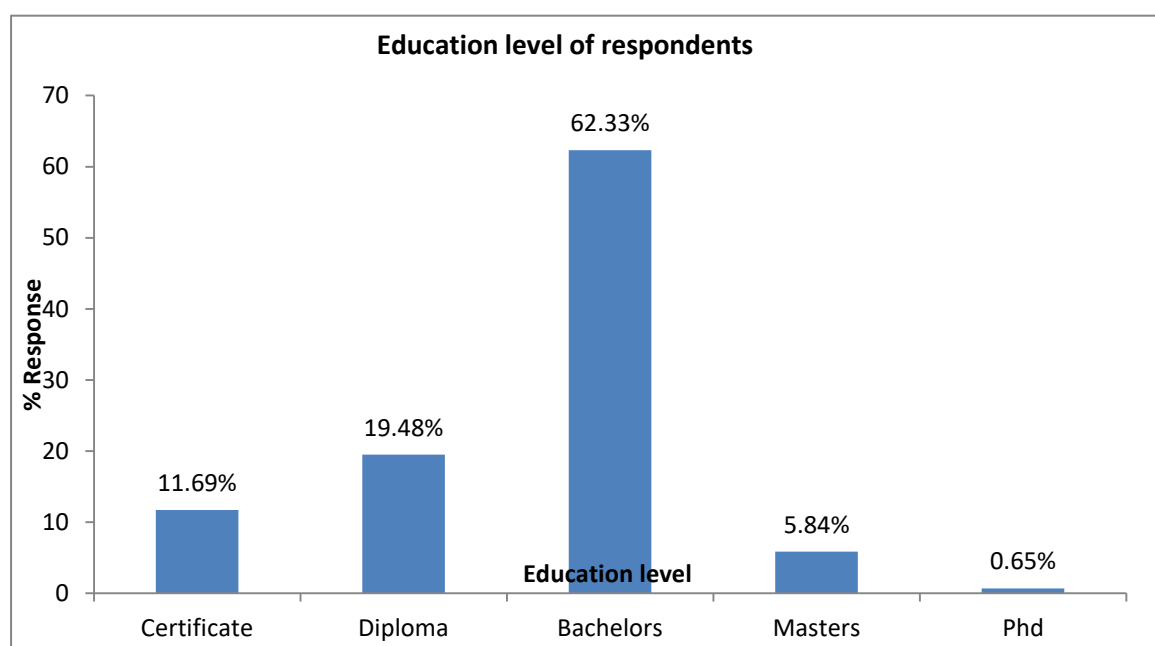


Figure 4.4: Level of education

From the Figure 4.4 majority (62.33%) of the respondents had bachelors, 19.48% had higher diploma, 5.84% had masters and 0.65% had PhD while the remaining 11.69% had certificate as their highest level of education. The findings therefore indicate that the respondents have the capacity, skills and management acumen to conduct procurement activities successfully in their organizations.

Criteria used for Supplier Evaluation:

Results on the criteria used by the Kenya seed company in supplier evaluation process are presented. Data on criteria were collected and analyzed through both frequencies and mean statistics where the results are as shown in Table 4.1. Frequencies are used to present how the responses given varied in the extent into which the given criteria were used whereas the mean statistic is used to give the average level of application of a given strategy.

Table 4.1: Criteria used for Supplier Evaluation

Criteria	%	No Extent	moderate Extent	large Extent	very large Extent	mean	Std deviation
Quality of the supplier services	2.3	5.3	6.9	51.4	34.1	4.667	.9546
Financial position of the supplier	5	6.2	20.1	23.4	54.7	4.895	.9453
Flexibility of the supplier	0	10	15.4	40.2	34.4	4.234	.7434
Supplier efficiency in the delivery	2	6	23.7	24.6	43.7	4.567	.8684
Price/cost charged by the supplier	0	2	10.1	28.7	59.2	4.923	.8665
Constitution and PPOA guidelines	1.8	5.1	24.7	35.7	32.7	4.876	.8546
Information sharing	3	4.9	34	50.2	7.9	4.354	.9657
Supplier technical capability	1	8	32.7	24.2	34.1	4.735	.8796
Supplier profile.	0	0	12	67.2	20.8	4.899	.6477
Ability and willingness	4	34	17.2	12.8	32	4.023	.7865
Selection based on the supplier	3	21	12.3	35.9	27.8	4.112	.875
Compliance with procurement	4.3	23.2	32.7	17.6	22.2	4.005	.7561

Table 4.1 shows the mean response for the method used for supplier evaluation. The means are based on the likert scale chart used for data collection where a mean of 1.0 – 1.9 is a no extent state, 2.0 – 2.9 is a little extent, 3.0 – 3.9 is a moderate extent, 4.0 – 4.9 is a large extent and a mean value above 4.9 is an indication of a very large extent. Based on the means obtained, all the criteria indicated a mean of 4.0 – 4.9. This shows that, Kenya Seed Company consider all the given criteria to a large extent while evaluating suppliers in their supply chain operations. Evaluation based on price/cost charged by the supplier had the highest mean of 4.923 and a standard deviation of .8665 whereas evaluation based on compliance with procurement procedures had the lowest mean of 4.005 and a standard deviation of .7561with. However, the range was not much as all the means are in the same interval.

Challenges of Supplier Evaluation:

The section presents results on the challenges faced by supply chain management staffs towards supplier evaluation. It shows the extent to which given challenges influence the effectiveness of supplier evaluation in Kenya seed company. The findings are as presented in Table 4.2;

Table 4.2: challenges of Supplier Evaluation

Criteria	%	No Extent	little Extent	moderate Extent	large Extent	very large Extent	mean	Std deviation
Incompetence by procurement		3	4	22	49	22	4.867	.7678
Corruption		4.1	6.9	10	61.8	17.2	4.889	.8757
Ignorance of guidelines Provided by PPOA		2	13	13	51	21	4.812	.7867
Inefficiencies in procurement Processes		6	9	34	38	13	4.434	.6766
Lack of incentives to the Organizations		6.1	5	18.6	35.3	35	4.534	.8687
Pressure of implementing PPOA guidelines		4	18	18	23	37	4.444	.6578
Cost of implementing Procurement systems		6	5	21	40	28	4.768	.7891
Lack of management support		4	4	7	65	20	4.879	.8787
Lack of expertise in evaluation among supply chain staff		5	34.1	31	12	17.6	4.112	.7875
Inadequate transparency from the supplier		2	12	12	39	40	4.796	.7578
Lack of clear goals towards procurement.		0	9	12	43.1	35.9	4.778	.8776

Table 4.2 above indicates the mean values of the results as well as their standard deviation which are derived from the frequencies of the responses given. The mean values obtained for all the challenges indicated a mean value in the range 4.0 – 4.9. These also had standard deviations which are all less than 1 indicating no much variance in the responses given from the actual mean. The highest mean obtained was 4.889 for the challenge of corruption of the procurement officers in evaluation process. This had a standard deviation of 0.8757 indicating that it was the biggest challenge experienced above other challenges given. The lowest was the challenge of lack of expertise in evaluation which had a mean of 4.112 indicating that this would be ranked the least among the challenges.

Effects of Supplier Evaluation Criteria on Procurement Performance:

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

Table 4.3: Effects of Supplier Evaluation Criteria on Procurement Performance

Criteria	%	No Extent	little Extent	moderate Extent	large Extent	very large Extent	mean	Std deviation
Reduction in product and Enhanced quality of output		6	47.9	21	40	27.1	4.732	.7578
Rate of returned goods/materials		6	12	12	50	20	4.854	.8673
Reduction in supplier quality		5.9	6	21	40	27.1	4.657	.4543
Eliminating wasteful steps		5	3	13	54	25	4.856	.6567
Supplier flexibility		4	10	12	39	35	4.547	.7665
Efficiency in supply chain		8	6	19	41	26	4.667	.8789
Transparency in procurement about Procurement function work in Compliance with procurement		4	9.1	23	39	24.9	4.566	.4543
		6	14	14	49	17	4.534	.7855
		3	12	8	31	46	4.811	.6456

On the procurement performance, as shown in Table 4.3, effectiveness of the evaluation process leads to improved performance in the procurement procedures. The results on means and standard deviations show that, all the aspects of performance obtained a mean score of values between 4.0 and 4.9 which the range for a large extent of agreement. Based on the mean results, the highest rank was obtained as 4.856 which indicated that with reduction in supplies quality, an

organization will benefit with enhanced quality of output in its operations. The lowest mean obtained on the other hand was 4.534 for the aspect Transparency in procurement about winning bids and prices.

Inferential Analysis:

To establish the relationship between the independent variables and the dependent variable of the study, an inferential analysis which involved a coefficient of determination and a multiple regression analysis were carried out. The Inferential analysis was utilized in this study to determine if there was a relationship between the variables, as well as the strength of that relationship. The inferential statistics analysis aimed to reach conclusions that extend beyond the immediate data alone between the independent variables

Correlation Results:

Correlation analysis was undertaken to test the association between the dependent and independent variables. The dependent variable in this study was the procurement performance whereas the independent variables were the supplier evaluation criteria used. To test the association, Pearson correlation coefficient test was used. The correlation matrix in Table 4.4 presents these results;

Table 4.4 Correlation Results

Procurement Performance		
Procurement Performance	Pearson Correlation	1
Sig. (2-tailed)		
quality of the Supplier services	Pearson Correlation	.840*
Sig. (2-tailed)		
		.011
Financial position of the Supplier	Pearson Correlation	.810**
Sig. (2-tailed)		
		.007
flexibility of the supplier	Pearson Correlation	.779**
Sig. (2-tailed)		
		.000
Supplier efficiency in delivery and service	Pearson Correlation	.692 *
Sig. (2-tailed)		
		.003
price/cost charged by the supplier	Pearson Correlation	.430**
Sig. (2-tailed)		
		.000
Constitution and the PPOA guidelines	Pearson Correlation	.643*
Sig. (2-tailed)		
		.018
Information sharing	Pearson Correlation	.566*
Sig. (2-tailed)		
		.008
Supplier technical capability	Pearson Correlation	.668*
Sig. (2-tailed)		
		.003
Supplier profile	Pearson Correlation	.613**
Sig. (2-tailed)		
		.001
Ability/willingness to share confidential information	Pearson Correlation	.716*
Sig. (2-tailed)		
		.012
Supplier experience	Pearson Correlation	.764* *
Sig. (2-tailed)		
		.000
Compliance with procurement procedures	Pearson Correlation	.682*
Sig. (2-tailed)		
		.017
*. Correlation is significant at the 0.05 level (2-tailed).		
**. Correlation is significant at the 0.01 level (2-tailed).		

As shown in the table, all the supplier evaluation criteria indicated a positive correlation with procurement performance. All the correlations were found to be statistically significant testing at the 5% level in a 2-tailed test. This is as all the p-values obtained are all less than 0.05 the critical value at the 5% level. The strongest correlation was found between

procurement performance and Selection based on the quality of the supplies (0.840). On the other hand, the least correlational strength existed between procurement performance and evaluation based on price/cost charged by the supplier with a correlation of 0.430 which is a moderate correlation.

Regression Analysis:

A Multiple regression is a statistical technique that allows the study to predict a score of one variable on the basis of their scores on several other variables. The main purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable.

Table 4.5: ANOVA

Model	Sum of squares	df	Mean square	F	sig
Regression	26.524	9	2.534	2.24	0.011 ^a
Residual	27.308	40	3.327		
Total	53.832	49			

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

b. Dependent Variable: Procurement Performance

From the table, the significance value is 0.011 which is less than 0.025 the critical value at the 5% level in a 2-tailed test. This therefore shows that the model is statistically significant in predicting the procurement performance of the Kenya Seed Company with the use of the variables selected. The F critical at 5% level of significance is 2.24 whereas from the table, the F calculated is 5.1612 which is greater than the F critical. Thus, the overall model was significant in presenting the relationship between the variables.

Table 4.6: Significance of the Variables in the Model

Model	Un standardized	coefficients	Standardized coefficients	sig B	SD Error
Constant	0.015	0.233	0.418	0.000	-
Quality of services	0.234	0.022	0.833	0.849	0.02
Financial position	0.023	0.024	-0.738	-0.877	0.012
Flexibility	0.116	0.143	1.23	1.138	0.004
Supplier efficiency	0.063	0.324	0.988	0.678	0.022
Price/cost	0.324	0.183	-0.574	-0.122	0.024
Constitution and PPOA	0.021	0.043	-1.897	-1.343	0.005
Information sharing	0.104	0.166	0.677	0.987	0.01
Technical capability	0.109	0.057	0.092	0.669	0.018
Supplier profile	0.224	0.234	-0.738	-0.789	0.15
Ability/willingness to share	0.344	0.037	0.823	-0.902	0.001
Confidential information	0.233	0.087	0.777	0.674	0.001
Supplier experience	0.197	0.123	-2.732	-0.648	0.002

Dependent Variable: Procurement Performance

The coefficients in Table 4.6 answer the regression equation relating the depended and the independent variables. Testing the significance of the coefficients at 95% significance level, the table indicates that all the variables had a significance value less than 0.05 thus confirming the significance of the results. Also, from the table, all the variables indicated a positive coefficient indicating a positive relationship between the dependent and independent variables.

Therefore, the model indicates that, holding the predictor variables constant, procurement performance would have a coefficient of 0.010. Increasing the efficiency in evaluation criteria would therefore lead to increased procurement

performance as shown by the coefficients which are all positive indicating a positive influence of the given evaluation criteria on procurement performance.

Table 4.7: Coefficient of Determination

Model	R	R ²	Adjusted R ²	Std Error
1	0.882 ^a	0.7779	0.7633	0.573

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

Findings as illustrated in Table 4.7 reveal that the coefficient of determination (R²) equals 0.7779. This shows that holding other factors constant, the predictor variables in this study (quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, and Compliance with procurement procedures) explains 77.79% of the variation in the procurement performance. Thus, the variation due to other factors that were not considered in the study is 22.21% implying that the variables used command a significant variation in the procurement performance.

The adjusted R Square in the table is 0.7633 indicating that in case where the study population could have been changed, the study results could have varied by 23.67% from the current results. Therefore, the study results are 77.79% valid as shown by the adjusted R square value.

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Results:

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

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

With regard to procurement performance, the study findings indicated that best practices in supplier evaluation results to reduction in product and material costs as well as enhanced quality of output. Findings also revealed that with efficiency supplier evaluation, an organization encounters a decreased rate of rate of return inwards, reduced supplier quality problems, elimination of wasteful steps in production process, supplier flexibility, efficiency in supply chain management, transparency in procurement about winning bids and prices, as well leads to procurement function working in compliance with procurement procedures. Supplier evaluation as well gives the choice to use specific contract strategy inspired by the need to deliver value for money by Procurement.

The study findings on the influence of supplier selection criteria on procurement performance revealed that evaluation based on the quality of the Supplier services greatly influences procurement performance. As well, selection based on the financial position of the Supplier was also reported to have a great and very great extent of influence to the procurement performance. Findings also revealed that selection based on the flexibility of the supplier greatly affect performance.

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

The correlation test for the association between these selection criteria and procurement performance revealed a positive correlation between all the evaluation criteria and procurement performance of the organizations. The associations were also found to be statistically significant at the 5% level of significant. The strongest correlation was found between procurement performance and Selection based on the quality of the supplies (0.840). On the other hand, the least relational strength existed between procurement performance and evaluation based on price/cost charged by the supplier with a correlation of 0.430 which is a moderate correlation.

Conducting a regression test, the study findings revealed that the selection criteria used (quality of the Supplier services, Financial position of the Supplier, flexibility of the supplier, Supplier efficiency in delivery and service, price/cost charged by the supplier, Constitution and the PPOA guidelines, Information sharing, Supplier technical capability, Supplier profile, Ability/willingness to share confidential information, Supplier experience, and Compliance with procurement procedures) explains 77.79% of the procurement performance. All these criteria were found to have a positive relationship with procurement performance of the organizations. The relationship was also tested to be significant at the 5% level of significant indicating significant influence of the evaluation criteria on procurement performance.

Conclusions:

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

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

There is a positive and significant relationship between supplier evaluation criteria and procurement performance in Kenya Seed Company. The positive relationship shows that the choice of the evaluation criteria will determine the performance of the procurement in the Kenya Seed Company. Thus, increasing efficiency in supplier evaluation criteria will result to increased procurement performance.

Recommendation:

This study established that commitment to quality positively affects procurement performance to a large extent. The study recommends that quality management is not static and that preparation of annual procurement supplies quality management should be participatory, frequently reviewed so as to improve on the company's procurement performance. Equally, suppliers' competency in terms of skills and experience should be well evaluated by qualified, competent and experienced procurement professionals in the tendering process since it largely affects the efficiency of procurement department. This will not only help maintain good procurement standards but also will help achieve high levels of efficiency and effectiveness.

The study also recommends that, Kenya Seed Company as well as other corporations should be guided by the constitution as well as the PPOA guidelines of 2015 on supplier evaluation for these to ensure effectiveness and performance of the procurement systems. Funds should also be availed for the supply chain to effectively manage the procurement systems for improved performance in the procurement activities.

Suggestions for further studies:

This study looked at three independent variables (suppliers' commitment to quality, competency and financial stability) which according to the study contributes to 77.79% of the variations in procurement performance at the Kenya seed company. The researcher recommends further research to investigate the other factors that affect procurement performance. Equally, further research should be carried out in other Kenyan parastatal to ascertain whether these findings are universal and research on procurement performance measurement should be carried out as this was not the objective of this study.

ACKNOWLEDGEMENT

First and foremost I thank the Almighty God who saw me through this project writing period. I wish to acknowledge my family members. I would like to acknowledge my beloved Mum Mrs. Joan, my husband and my daughters Jewel and Lauryn for their support throughout my study which enabled my work reach this far.

REFERENCES

- [1] Afonso, A., Schuknecht L., & Tanzi V., (2005). Public sector efficiency: An international comparison. *Public Choice*, 123,321-347
- [2] Aggrey, W.K., (2011). Factors affecting Public Procurement Performance at the Kenya Meteorological department. Msc Project presented to the Jomo-Kenyatta University of Agriculture and Technology
- [3] Baily, P., Farmer, D.J., Jessop, D., Jones, D. (2004), *Purchasing Principles and Management*, 7th ed., Pitman, London
- [4] Baker, E., Walker, H., Harland, C. (2007), "Organizing for collaborative Procurement: An initial conceptual framework",
- [5] Bartezzaghi E. S., Ronchi, D., (2003) *Production Planning & Control: The Management of*
- [6] Bayens, B., Martell, M., (2007), "Budget and organization reform: impact on public procurement in Belgium", in Knight, L., Harland, C., Telgen, J., Thai,
- [7] Berthoud, R., (2002). *Introduction: The Dynamics of Social Change*. Bistol: Policy Press.
- [8] Best, J., & Khan, V. (2000). *Research in education*. New Jersey: Prentice Hall.
- [9] Birou, L., Croom, S., (2008). *Global Benchmarking Study SCM Syllabi*. Decision Science
- [10] Bogdan, R.C., & Biklen, S.K., (1998). *Qualitative Research for Education: An Introduction to Theory and Practice*, Alley and Bacon.
- [11] Bovaird, T., (2006). Developing New forms of partnership with the 'market' in the procurement of public Services, *public Administration*, 84(1)-102
- [12] Brulhart, M., and Trionfetti F., (2004) *Public Expenditure*. 881 International specialization and agglomeration. *Economic Review*, Aug. 2004, Vol.48 Issue 4, p851
- [13] CIPS. (2013). *Monitoring the Performance of Suppliers-CIPS Positions on Practice*. CIPS.
- [14] Cooper, M.C., Lambert, D.M., & Pagh, J., (1997) *Supply Chain Management: More Than a New Name for Logistics*. *The International Journal of Logistics Management* Vol. 1, Iss 1, pp 1-14
- [15] Cox, A., (1997), *Business Success and Critical Supply Chain Assets: A way of thinking about Strategy*, critical Supply Chain Assets and Operational Best Practice, Earsgate press, Boston.

- [16] Croom, S. & Johnston, R. (2005). Improving User Compliance of Electronic Procurement
- [17] Dale L.F, Aziza S., (1990). Operational Audits of Purchasing, Pitman. London.
- [18] Devaraja, S., Swaroop, V., & Zou, H., (1996). "The Composition of public Expenditure and Economic Growth." Journal of Monetary Economics 37 (2): 313-44.
- [19] Driedonks, B., Gevers, J. & Van Weele, A.J. (2009). Managing Sourcing Team Effectiveness: The need for a team perspective in purchasing, Journal of Purchasing and Supply Management, Winter 2009.
- [20] Dutta, D., (2008). Altitude towards School Infrastructure in Rural Areas of West Bengal. Retrieved Jan 2011 from <http://schoolinfrastructure.blogspot.com/search> (Accessed on 24th August 2016)
- [21] Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. The Journal of marketing, 11-27.
- [22] Erridge, A., Henningan, S., (2007), "Public procurement and social policy in Northern Ireland: the unemployment pilot project, Advancing Public Procurement: practices, Innovation and Knowledge –sharing, PR Academics Press, Boca Raton,
- [23] European Commission. (2006). Handbook on Green Public Procurement'. Available: <http://ec.europa.eu/environment/gpp/pdf/int.pdf>. Last accessed 4th August 2016.
- [24] Evenett, S. & Hoekman, B. (2005), "Government procurement: market access transparency, and multilateral trade rules," European Journal of Political Economy, Elsevier, 21(1), 163-183
- [25] Fernandez M, J. (1996). The E.C. Public Procurement Rules: A Critical Analysis, Oxford: Clarendon press.
- [26] Gall, M.D., Gall, J., & Borg, W.J. (1989). Educational Research. Longman: University of Oregon
- [27] Gelderman, C.J., Ghijsen, P. W., & Brugman, M.J., (2006). Public Procurement And EU Tendering Directives Explaining Non-Compliance. International Journal of Public Sector Management, 19(7):702-714
- [28] Gituro, W., Awino. Z.B., "An Empirical Investigation of Supply Chain Management Best Practices in Large private Manufacturing Firms in Kenya", Paper presented in the 5th International Operations Research of Eastern of Eastern Africa Conference, White Sands Hotel, Dar-es Salam, Tanzania, 16th-17th July, 2009.
- [29] Gordon, S. R. (2008). Supplier evaluation and performance excellence: a guide to meaningful metrics and successful results. Ft. Lauderdale, FL, J. Ross Pub.
- [30] Government of Kenya (2001a), "The Exchequer and Audit (Public Procurement) Regulations 2001, Legal Notice No.51", Government Press, Nairobi
- [31] Government Printer, Nairobi.
- [32] Halldorsson, A., Kotzab, H., Mikkola, J.H., Skjoett-Larsen, T., (2007). Complementary theories to supply chain management. Supply Chain Management: An International Journal, Volume 12 Issue 4, 284-296.
- [33] Head, D.A. (2003). 'Fiscal Transparency: Concepts, Measurement and UK Practice', Public Administration, 81, 4, 723 –59
- [34] Hirakubo, N., & Kublin, M. (1998). The relative importance of supplier selection criteria: the case of electronic components procurement in Japan. Journal of Supply Chain Management, 34(2), 19.
- [35] Kamenya, R. B. (2014). Supplier evaluation and performance of large food and beverage manufacturing firms In Nairobi, Kenya. Nairobi, Kenya: Unpublished MBA project, University of Nairobi.
- [36] Ketchen Jr., G., & Hult, T.M., (2006). Bridging organization theory and supply chain management: The case of best value supply chains. Journal of Operations Management, 25(2) 573-580
- [37] Kirande, J. & (2014). Determinants Affecting Public Procurement Performance in Kenyan Universities: A Case of the Co-operative University College of Kenya. International Academic Journals, 1(1), 104-123.

- [38] Kothari C.R. (2004) Research methodology: methods and techniques 2ndEdn 2004 New age International (P) Ltd. New Delhi
- [39] Kytile, B., &Ruggie, J. G. (2005). Corporate social responsibility as risk management: A model for multinationals.
- [40] Lavassani, M. K., Movahedi B., Kumar V. (2008) Transition to B2B e-marketplace enabled Supply Chain: Readiness Assessment and Success Factors, Information Resources Management (Conf-IRM), Niagara, Canada.
- [41] Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., &Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.
- [42] Lysons, K., & Farrington, B. (2006). *Purchasing and Supply Chain Management*. London: Prentice Hall.
- [43] Makabira, D.K., & Waiganjo, E. (2014). Role of Procurement Practices on the Performance of Corporate Organizations in Kenya: A Case Study of Kenya National Police Service. *International Journal of Academic Research in Business and Social Sciences*, 4(10): 369-384.
- [44] Matook, S., Lasch, R., & Tamaschke, R. (2009). Supplier development with benchmarking as part of a comprehensive supplier risk management framework. *International Journal of Operations & Production Management*, 29(3), 241-267.
- [45] McCrudden, C. (2004). Using public procurement to achieve social outcomes, *Natural Resources Forum*, 28(4): 257-267
- [46] Mentzer, J.t., et al. (2001): Defining Supply Chain Management, in: *Journal of Business Logistics*, Vol.2, No. 2, 2001, pp.1-25. 14
- [47] Midwinter, A., & McGarvey, N., (2001). 'The New Accountability Devolution and Expenditure Politics in Scotland', *Public Money and Management*, 21/3, pp.47-55
- [48] Mugenda, O.M., & Mugenda A.G., (2008) *Research methods: Quantitative & Qualitative Approaches*. Acts Press, Nairobi
- [49] Mugenda, O.M., & Mugenda, A.G., (1999). *Research Methods: Quantitative and Qualitative Approaches*, Nairobi, Acts Press.
- [50] Murray, J.G., (2007), "Strategic procurement in UK local government: the role of Elected members", *Journal of Public Procurement*, Vol.7 No.2.
- [51] Musgrave, R.A., & Musgrave P.B., (1984). *Public Finance in Theory and Practice*, 4th edn, New York, NY: McGraw-Hill.
- [52] Mwikali R. and Kavale, K. (2012). Factors affecting the Selection of Optimal Suppliers in Procurement Management. *International Journal of Humanities and Social Science*, 2(4), 189-193.
- [53] Newman, R. A. (1988). Adaptive plasticity in development of *Scaphiopus couchii* tadpoles in desert ponds. *Evolution*, 774-783.
- [54] Ng'ang'a, H. W. (2014). Supplier selection criteria and supply chain performance in non-governmental organizations in Kenya. Nairobi, Kenya: Unpublished MBA project, University of Nairobi.
- [55] Nzau, A. &. (2014). Factors affecting procurement performance of public universities in Nairobi County. *International Journal of Social Sciences and Project Planning Management*, 1(3): 147-156.
- [56] 'OECD', (2007). Assessment of the Procurement System in Kenya. [online] OECD. Available at: <http://www.oecd.org/dac/effectiveness/41583965.pdf> [Accessed 29 Aug. 2015].
- [57] Ogula, P.A. (1998). *A Hand book On Educational Research*. Nairobi: New Kemit Publishers Operations, 1366-5871., volume 16, Issue 4, 2005, pages 405 -412
- [58] Orodho A.J, (2003) *Essentials of Educational and Social Science Research methods: Qualitative and Quantitative Approaches*. Nairobi Acts Press.

- [59] Pamela, D. (2013). Supplier Integration And Company Performance: A Configurationally View. *Omega*, 41,1029–1041
- [60] Pontious, M. (2008). Evaluation of the procurement process in public institutions of Uganda, Unpublished thesis, a case study of Makerere University.
- [61] Rabbecca K.M., (2010). Factors influencing efficiency in procurement systems within the public Institutions .Msc Project presented to the Jomo-Kenyatta University of Agriculture and Technology
- [62] Ramsay, J., Croom, S., (2008). The impact of evolutionary and development metaphors on supply chain practice: a literature critique and pilot study. *Journal of Purchasing and Supply Management*, 14 (3), 192-204.
- [63] Routledge, London. Bolton, P. (2006), “Government procurement as a policy tool in South Africa”, *Journal of Public procurement*,
- [64] Schiele, J.J., & McCue, C.P., (2006), “Professional service acquisition in public sector
- [65] SGS Consultants, (1989), Evaluation of public procurement systems in Kenya: Consultation Report submitted to the Ministry of Finance.
- [66] Snider, K.F., (2006), “Procurement leadership: from means to ends”, *Journal of Public Procurement*, Vol.6 No.3.
- [67] Sonmez, M. (2006). Review and critique of supplier selection process and practices. Loughborough University.
- [68] Speckman, R.E., Kamauff, J.W. Salmond, D.J. (1994), “At last purchasing is becoming strategic”, *Long Range Planning*, Vol.27 no.2, pp.76-84.
- [69] Tanzi, V and Schuknecht, L. (2000) Public Spending in the 20th Century: A Global Perspective, International Monetary Fund Institute, Washington DC
- [70] Thai P.K.V., (2001), *Advancing Public Procurement: Practices, Innovation and Knowledge-sharing*, Pr Academics press, Boca Raton, FL.
- [71] Thai, K.V., Araujo, A., Cartre, T.Y., Callender, G., Drabkin, M. (1994), *Strategic Purchasing and Supply Chain Management*, Pitman, London
- [72] Trionfetti, F., (2000), “Discriminatory Public and International Trade’ *The World Economy*, Vol. pp.57-76.
- [73] Van Weele, A., (2007) “On the need for fostering academic community rather than Academic Methodology in purchasing and supply chain management”, *Journal of purchasing and Supply Management*, Vol.13 No.2, special issue: Methods, pp.204-6.
- [74] Wittig, W.A., (1998), Report of the Conference on Public Procurement Reform Conference in Africa, Cote d’Ivoire, 30 November-4 December 1998, International Trade Centre, Geneva.
- [75] World Bank (2000), “Standard Bidding Documents: Procurement of Works’, World Bank, Washington, D.C. Vol. 18, Issue. 1, Data & Statistics: Kenya.
- [76] Wu, T., Shunk, D., Blackhurst, J., & Appalla, R. (2007). AIDEA: a methodology for supplier evaluation and selection in a supplier-based manufacturing environment.
- [77] Zheng, J., Knight, L., Harland, F., (2007), “An analysis of research into the future of Purchasing and Supply Management”, *Journal of Purchasing and Supply Management*, Vol. 13 No.1.