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ABSTRACT

The purpose of the study was to examine the effects of single sourcing on procurement performance in the public entities in Kenya. The study adopted a descriptive research design, with a population of 86 respondents a questionnaire with both open ended and closed questions was used to collect raw data respondents. The study established that the correlation coefficient was 0.842. This indicated a very strong positive relationship between the independent variable and dependent variable. The data showed that the high R square was 0.709. It showed that the independent variables in the study were able to explain 70.90% variation in the procurement performance in the public entities in Kenya while the remaining 29.10% was explained by the variables or other aspects outside the model. This implied that these variables were very significant and they therefore needed to be considered in any effort to boost procurement performance in the organization. In the light of the findings and conclusions, the following recommendations were hereby proposed: Efforts must be made to implement those TQM practices which were not being effectively practiced in the study area so as to help improve on procurement performance in the organizations. There was the need to employ quality functional deployment. The study recommended that there was need for the improvement on the purchasing prices especially the services and works cost more to enhance procurement performance in the organization. The organization purchasing price should be based on the suppliers cost as determined by the organization. The strategic sourcing should focus on searching for low-cost and high-value materials; developing technology and inventory control more efficient. The study recommended that to enhance procurement performance in the public entities in Kenya, there was need to ensure that procurement staff is computer literate to and have adequate and level of procurement systems usage should be adequate to enhance procured quality goods. The ICT should be adequately observed in the organization procurement process. Most notably, there is need to improve the IT infrastructure to enhance in the procurement process, funding, timely delivery of goods and services as well as qualified manpower and training.

Key Words: *of Supplier Sourcing, Purchasing Price, Quality Management, Technical Expertise, Procurement*

INTRODUCTION

Worldwide organizations are operating in an environment characterized by countless economic and political disruptions to their sources of supplies and services. In order to survive in this turbulent marketplace, these organizations are adopting single sourcing to monitor their competitive position as well as their internally controllable processes, especially the procurement process (Burt, Dobler & Starling 2013). Single sourcing if well established is proven method for managing large-scale, medium to long term procurement activities. It has been adopted as standard practice by numerous public and private organizations in developed countries.

According to Reeds, Bowman & Knipper (2005) single sourcing is probably the most significant aspect characterizing an organization's transformation to supply management. It is an aspect of supply management which provides some of the most value-added benefits to the organization. Single Sourcing is emerging as one of the major steps in the procurement process, involves the identification and selection of the supplier whose costs, qualities, technologies, timeliness, dependability, and service best meet the organization's needs

Single sourcing is used where competitive bidding is not possible. Manyega and Okibo (2015) note that single sourcing is only relevant when there is urgency and time may not allow for other methods to be used. According to Section (74), a procuring firm may use single sourcing on the following grounds: there is no reasonable alternative, there is urgency (property and life threatened), there is only one supplier who can meet the requirement and when it is impractical to use other procurement methods. An example of a single sourced project is the Nairobi-Naivasha SGR supervisor in which the best supervisor had to be quickly selected to work with China Communication Company (CCCC) to

allow for faster completion of the railway (Kasisi, Benjamin & Mwangi, 2015).

Single sourcing strategies entail aiming hard for partnership between buyers and suppliers so as to enforce cooperation and achieve shared benefits. The tighter the coordination between procurers in public entities and supplier required for Just in time (JIT) stock initiatives encourages the County to shift supply relations towards single sourcing. Kenya, Onyango & Mamati (2011), state that it is cumbersome to manage more than one source than when dealing with a single source. However, Karani (2014) argues that depending on one source may expose the buying company to a greater risk of supply interruption especially in cases where the public institution splits its total requirements among various suppliers.

The public entities benefits from single sourcing in terms of reduced order lead times, quantity discounts from order consolidation and logistical cost reductions and this influences supply and processing of goods and services (Apiyo & Mburu, 2014). Single sourcing procurement has enabled public entities to achieve cost efficiency due to quantity discounts involved in this method. Nzau and Njeru (2014) confirm that these benefits are as a result of a scaled down supplier base and they enhance the SCP of the county. In contrast, Onyinkwa (2014) viewed that relationship management costs, in terms of capital and time, may outweigh the SMC enhanced by single sourcing. This is due to the fact that single sourcing is built on a long-term trust based partnership relationship between the supplier and the buyer. In line with this reasoning, Amayi and Ngugi (2013) contend that there must be a good will trust between the parties to have a successful partnership. However, the level of trust is rarely attained in most cases thus influencing the

management of flow of goods from raw materials to processing.

Researchers such as Rotich (2011), Wanjiru (2016) and Buuri (2016) noted that despite single sourcing being advantageous, there are cases where it negatively affects SCP. The Public and Disposal Act (2005) encourages open tendering the supplier may take advantage of single sourcing and the government is not able to enjoy competitive rates in such a setting. An example is in July 2015 when Meru Governor Peter Munya was faulted for single sourcing Ksh 672 million goods, an action considered illegal as per PPDA, 2005. Single Sourcing from a single supplier may compromise the quality of the procured goods and services (PPDA, 2005). Unlike in competitive bidding where various suppliers strive to provide the best quality, a single supplier in direct procurement may fail to meet the required quality specifications. As a result, the County is faced with major consequences from the deteriorated level of quality. Poor quality materials delivered to the county offices may increase wattage and the overall cost of operation which in turn affects competitiveness, profitability and customer loyalty (Buuri, 2016). Unhealthy competition, low profit levels and lack of customer loyalty negatively influence the productions of goods and services.

Single sourcing requires that the organization maintains a close relationship with its main suppliers (PPOA, 2010). This entails a significant amount of investment in terms of resources, time and research. The county government is expected to research more on suppliers and selects the most appropriate. Organizations are usually faced with huge costs while attempting to handle these buyer-seller relationships. SCP is thus affected as the county procurers incur high costs when seeking information about the most reliable and cheapest suppliers and in their attempt to maintain this relationship. Wanjiru (2016) also suggest that there

is a risk of stock outs when relying on a single source. The trusted supplier may fail to deliver the right quantity of goods at the agreed time and the county may be faced with a stock-outs problem. Stockout costs, according to Kasisi, Benjamin and Mwangi (2015), are a situation in which a firm is unable to meet both production requirements and customer demands from the current stock. As a result, the county's SCP is negatively influenced due to lower profits, loss of sales, and loss consumer goodwill.

Globally, in many developed nations, public sector expenditure is substantial. Government organizations across the world tend to spend between 8 per cent and 25 per cent of GDP on goods and services (OECD 2006). In the UK, public procurement expenditure is approximately £150 billion (DEFRA 2007). Government is often the single biggest customer within a country, and governments can potentially use this purchasing power to influence the behavior of private sector organizations (Charles 2007). In particular, it has been noted that public procurement can be a lever to deliver broader government objectives, such as stimulating innovation in supply markets, using public money to support environmental or social objectives, and for supporting domestic markets (McCrudden, 2008).

Thai (2011) noted that by 2013, all the East African Countries, Uganda, Kenya, and Tanzania had enacted government procurement codes as Acts of Parliament and have been implemented since. In Uganda, a new law to regulate public procurement was introduced in the year 2002 (Tukamuhabwa, 2012). The new procurement law was introduced to not only bring coherence and uniformity in public procurement in county governments but also to improve efficiency, transparency and accountability and value for money in procurements. It also eliminates corruption and allows for fair competition (GOU, 2003). European Union (2010)

concur with this statement by noting that the European Union public sector procurement should follow transparent open procedures ensuring fair conditions of competition for suppliers.

The county government payment procedures lack proper payment procedures facilitate corruption PPOA (2014). For instance, some payments are done before the delivery of goods or full payments are issued for partial delivery. In other circumstances, there is selective payment of suppliers based on which supplier has paid the highest amount of “kick-backs”. There is need for sufficient, clear and documented payment processes to seal this loophole. Effective procedures that enhance transparency, good management, prevention of misconduct, accountability and control contribute to preventing not only corruption but also the waste of public resources. Through corrupt practices, market competition is hindered; and the price paid by the administration for goods and services is artificially raised, which has a direct impact on public expenditures and therefore on taxpayers’ resources CMKN (2012). Further studies have shown that several models have been tried by different countries to implement e-procurement. These are seller centric, buyer centric, e-marketplaces or third party managed. In many African countries, these models are summarized into three: public, the mixed model and public-private partnerships.

The public entities in Kenya are annually procure billions of shillings worth of systems, supplies, and services in support of the government operations. As a result, modernization of procurement practices and processes presents government with a clear opportunity to leverage significantly improved value for money from its total spend on goods and services. According to McKinsey report (2009), government purchases of goods and services account for about 5%-8% of the GDP in OECD

countries. In order to combat the mounting fiscal deficits, governments across the world have come under immense pressure to reduce their spending. One of the challenges of public procurement is inefficient cost cutting, lack of transparency even during negotiations, and hence competitive pricing will only have a limited impact on savings (Gabbard 2004). As a result, public sector buyers will be forced to revisit procurement practices and built an efficient and agile supply chain.

Statement of the Problem

Worldwide governments have adopted single sourcing which is probably the most significant aspect characterizing the public procurement transformation to supply management (World Bank, 2013). It is also this aspect of public procurement management which provides some of the most value-added benefits to the public entities (Mburu & Kigen, 2016). Single sourcing, one of the major steps in the public procurement process, involves the identification and selection of the supplier whose costs, qualities, technologies, timeliness, dependability, and service best meet the public entities needs (GoK, 2013).

In Kenya, the public entities implement projects which form a big part of the economy accounting for over 50 % of all government expenditure (GoK, 2013). One of the challenges of public entities procurement is inefficient cost cutting, lack of transparency and competitive pricing which only have a limited impact on savings (Gabbard 2014). As a result, public entities are forced to revisit procurement methods such as single sourcing and build an efficient and agile supply chain in the development and implementation of infrastructure projects. World bank (2015) report indicated that the public entities lose up to 40% of the capital investments for the projects implemented by the public entities due to poor procurement methods. For example the Kenyan public entities have been forced to often award tenders through single-

sourcing due to the prevailing procurement challenges in the public sector. Examples abound, more so in the construction, telecommunications and energy sectors. For instance, the Government awarded tender for Phase Two of the National Optical Fibre Backbone Infrastructure (Nofbi) to a Chinese company Huawei Technologies. The project is estimated to cost taxpayers Sh6.2 billion. The Kenya Railways. Kenya Railways single sourced project for the Nairobi-Naivasha SGR supervisor in which the best supervisor had to be quickly selected to work with China Communication Company (CCCC) to allow for faster completion of the railway (Kasisi, Benjamin & Mwangi, 2015).

In spite of the legal, policy and institutional reforms undertaken so far in the public procurement sector in Kenya, public entities still find it hard to effectively enhance procurement performance on the value of the money invested in the projects. Muchira (2013) indicated that over 70 percent of key public entities contracts in Kenya are wanting. Most of the previous studies report on the single sourcing as one procurement methods can enhance overall procurement performance in public sector projects (Chenhall, 2014; Mann & Kehoe, 2014; Kasisi, Benjamin & Mwangi, 2015). The inability of public entities which is the single largest consumer of the government expenditure in the country consuming about 20% of the GDP and up to 60% of the annual budget (Nzai and Chitere, 2013) is a serious problem given that public entities projects are the engine of economic growth and development needed to move the country to a middle level economy as envisaged in the development blue print of Vision 2030 (ACEPD, 2011). This presents a gap for research to establish the reasons behind such a lackluster procurement performance in the public entities in Kenya. This study therefore intended to empirically examine how single sourcing could enhance procurement performance in the public entities in Kenya.

Objectives of the Study

The general objective is to examine the effects of single sourcing on procurement performance in public entities in Kenya. The specific objectives were:-

- To examine the effect of supplier sourcing on procurement performance in public entities in Kenya
- To determine the effect of purchasing price on procurement performance in public entities in Kenya
- To establish the effect of quality management on procurement performance in public entities in Kenya
- To assess the effect of technical expertise on procurement performance in public entities in Kenya

LITERATURE REVIEW

Theoretical Review

Transaction Cost Theory (TCT)

Transaction Cost Theory was first developed by Ronald Coase in 1937. TCT states that a firm's ownership decision is based on minimizing the sum of its transaction and production costs. Transaction costs occur in the exchange between client and vendor. Williamson (1994) also asserts that transaction costs are comprised of the costs of seeking the suppliers, inspection of goods and establishing and formalizing the terms of agreement, including the means to both guarantee compliance with the terms and protect against the potential expropriation of the investments made, to ensure that contract conditions are fulfilled. These aspects form the pillar to successful outsourcing from third party providers given the delivery by each party to the relationship.

According to Espino-Rodriguez and Gil-Padilla (2006) the greater the transaction costs, that is, the costs of information, negotiation and supervision of

compliance entail, the less the tendency to outsource the activity. The primary factors producing transactional difficulties include: bounded rationality; opportunism; small numbers bargaining; information impactedness (McIvor, 2003). This theory implies that public entities consider cost implications of outsourcing initiatives for appropriateness. Management should outsource if the cost of doing the process is expensive than can be done by a service provider. According to the transaction cost theory, firms do exist to maximize profit by reducing their transaction costs; outsourcing to suppliers helps to minimize a firm's costs because as they grow in their capability they offer services at lower costs to their clients (Bolumole *et al.*, 2007). It is generally accepted that transaction cost analysis is useful for assessing and taking a decision concerning single sourcing in the organizations.

Deming's Theory

This theory will guide the study in investigating the relationship between quality management and procurement performance. William Edwards Deming is well known for founding the Deming's theory of Total Quality Management, which rests upon fourteen points of management. He also identified the system of profound knowledge; the Shewart Cycle (Plan-Do-Check-Act), the ratio of Quality is equal to the result of work efforts over the total costs. This ratio explains that if a company is to focus on costs, the problem is that costs rise while quality deteriorates (Brighthub, 2013).

Edwards emphasized on the management as a key player in proper delivery of quality. He made it clear that poor management leads to a quality crisis. This also focuses more on the human resource capacity in the organization. If the management has poor quality skills, there will be a quality crisis. In a bid to eliminate some of these managerial mistakes, he came up with Fourteen Points that are applicable in

any organization regardless of the type or the size. Therefore, these points are very applicable even in the procurement (Mnyonyi, 2014).

These Deming's Fourteen Points of Quality were: creation of constancy of purpose geared towards improvement of products and services, adoption of the new philosophy that does not condone commonly accepted mistakes or defective workmanship, ceasing dependence on mass inspection to emphasize on required statistical evidence, end the practice of awarding business on the basis of price only, constantly identify problems and continually improve on the system, make training on the job compulsory, use modern supervisory methods and demonstrate leadership, eliminate fear to foster worker effectiveness, emphasize on freedom between departments, eliminate targets and slogans for the workers, remove any working standards that describe numerical quotas, dispose of barriers denying workers the right of pride of workmanship, invest in a vigorous educational and retraining programs and develop a structure and culture in the company that will enable achievement of quality (Mnyonyi, 2014). The Deming's Fourteen Points of Quality emphasize more on planning, workmanship, skills and training and development of the workers. All these are aspects related to the quality management.

Competency Theory

To investigate the influence of technical expertise on procurement performance, the study will be based on competency theory. The work of McClelland & McBer in the 1980s established the competence theory. The authors defined competency as the underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation. Since then a number of competency frameworks have been developed by

different procurement performance in various organizations, Crawford (as cited in Boyatzis, 1982 & Spencer, 1993), puts a model of competence that integrates knowledge, skills, demonstrable performance, and core personality characteristics, noting the last, personality characteristics, as challenging to develop and assess through training. She argues that two of the most influential procurement management standards established, are addressed only the knowledge aspect of competence while a third, Australia's National Competency Standards, draws from knowledge but focuses only on demonstrable performance.

Crawford, (2010) study found out that procurement managers “do not necessarily have the required supply chain management competence perform the full activities required to promote and implement the changes that they are leading as part of their organizations. Interest in procurement management competence stems from the very reasonable and widely held assumption that if people who manage and work on organizations are competent in procurement, they will perform effectively and that this will lead to successful procurement and successful organizations (Beer, 1990; Smith, 1976). Competence is generally accepted, however, as encompassing knowledge, skills, attitudes and behaviors that are causally related to superior job performance. Crawford (as cited in Boyatzis, 1982 & Spencer, 1993), stated that professional competence in procurement management is attained by combination of knowledge acquired from training and its subsequent application and other skills developed in the course of work. Previous management studies have investigated the impact of competency on procurement performance.

Dainty (2004) have argued for a competency based performance model for supply chain managers where managerial behavior input is appraised and

nine performance indicators for PM competency are developed to comprise team building, leadership, decision-making, mutuality and approachability, honesty and integrity, communication, learning, understanding and application, self-efficacy, and maintenance of external relations. In the context of single sourcing and procurement performance it is assumed that if the procurement manager and the supply chain management team will single source individuals who have all the required technical expertise to perform expected duties which can only be performed by the experience technical team being outsourced. Public entities will therefore use this to engage services of qualified individuals who have the required expertise in the procurement practices that can assist in making informed procurement. This will assist them to avoid making decisions which pose challenges to its procurement operations

Conceptual Framework

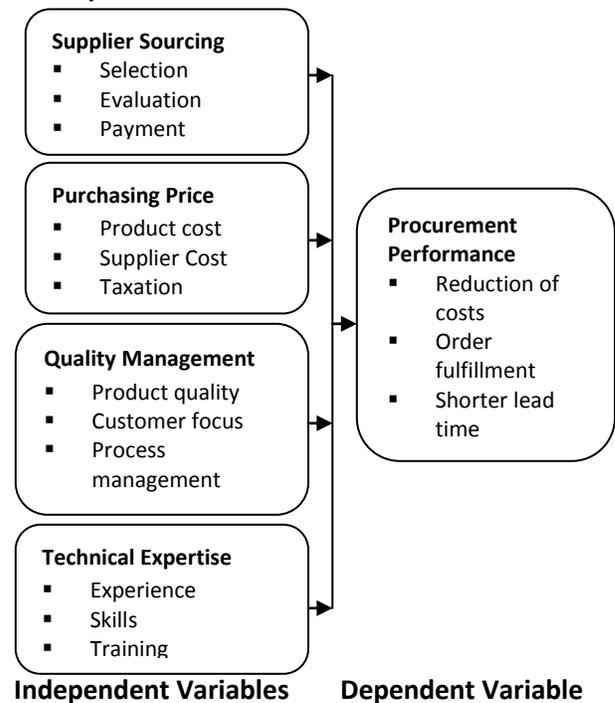


Figure 1: Conceptual Framework

Supplier Sourcing

Supplier selection from a global point of view encompasses the myriad activities used to evaluate the capabilities of potential suppliers and then to select them to configure a buyer's supply chain for long-term competitive advantage (Choi and Hartley, 2014). Supplier selection is critical (Lao, Hong and Rao 2010) as firms become more and more dependent on their suppliers; the capabilities of those suppliers serve as key resources in the development of the buyer's own capabilities and performance.

Single sourcing and supplier integration improves procurement performance (Petersen et al. 2005) improving economy can be described as achieving the lowest possible costs. Improving efficiency is getting maximum output from available resources, and improved effectiveness is all about achieving objectives set. This can be achieved through improving the level of service to end users. For example improving service standards, achieving budget targets and better relationship with internal customers and suppliers. A well managed and structured approach to supplier selection ensures that the suppliers have the skills and knowledge to do the job and that they are developed to their full potential. The institution will benefit from this through cost saving, improved quality, effectiveness and efficiency. i.e. financial costs, mitigating delay costs e.g. when work cannot be done because of lack of equipment necessary for the job and reputational costs.

Purchasing Price

Kiruja(2014) stated that in the past it was often the case that price was paramount as an influence on the buying decision. He went on to suggest that, while price is still important, a major determinant of choice of supplier or brand is the cost of time. The cost of time is simply the additional costs that a customer must bear while waiting for delivery or

seeking out alternatives. To evaluate procurement performance using time one would seek to know the timing of supplier's actual delivery performance against promised, time taken to process requisitions and time taken up with remedial action.

Pricing in nearly all types of business is affected by what economist call the price mechanism, which is the theory of supply and demand. There is the notion of an equilibrium price which proposes that at the equilibrium or market price exactly the same quantity is both demanded. In most free market economies the process of equilibrium helps to decide what is produced and what is not produced. To evaluate the procurement performance using price one would seek to know if the price paid against standard market price, price paid for key items compared with market indexes, price paid against budget cost and the price at the time of use against price at the time of purchase(Baily et al, 2008).

Quality Management

According to Prof. Alesandro Burn (2011), a vital task for any management is to outline product quality goals, product quality policies and product quality plans in accordance with the four sides of the TQM pyramid. This is extremely important –so important in fact that, in many firms, top management (the board of directors) ought to review the firm's product quality goals and policies and if necessary reformulate them so that they conform to the four sides of the TQM pyramid. Just as important, these goals and policies should be clear and meaningful to all employees in the firm. It is extremely important, for example, that the firm's product quality goals signal to employees that the firm's principal task is to satisfy its external customers and that this can only be achieved if the firm is able to exceed customers' expectations.

The firm's product quality goals give all employees a clear indication of what is going to be achieved concerning quality. The firm's product quality policies, on the other hand, describe in more detail how employees are to achieve the goal. Product Quality goals and product quality policies must be followed by meaningful action plans. Experience from firms which have understood and realized the TQM vision shows that firms ought to concentrate on short-term plans (one-year plans) and long-term plans, the latter often being three-year plans which are revised annually in connection with an annual quality audit (Burn, 2011).

Technical Expertise

Single sourcing is no longer considered a clerical function performed independently by untrained individuals within a governmental agency (National Institute of Governmental Purchasing, 2011). Qualified staff that is competent and skilled would help the organization to achieve its goals and objectives by being efficient and effective when carrying out their various functions. For an organization to succeed, qualification and experience is therefore a pre-requisite and must be matched with job requirement, hence the need to hire and develop ambitious personnel.

If staff involved in single sourcing is not qualified and competent, then there would be ineffectiveness in the procurement performance of an organization. Bailey and Farmer (1202) says that for procurement function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job. Carter and price (2013) indicate that training of staff is vital if full use is to be made of their abilities and talents. Coe (2009) says that it's important to ensure that sufficient number of the appropriate caliber is available to the organization in pursuit of its objectives. Incompetent employees can render procurement performance of an organization virtually ineffective.

Procurement Performance

According to Kiruja (2014) Procurement performance in public entities may be defined in terms of the quantitative or the qualitative assessment over a given time towards the achievement of corporate and operational goals and objectives relating to purchasing economies, efficiency and effectiveness. Quantitative objectives are measurable using such measures as number of orders placed, reduction in lead times, price savings and reduced administrative costs and will tend to be used when purchasing is regarded mainly as a clerical and transactional activity (Knusden, 2009).

Empirical Review

Supplier Sourcing

Gonzalez and Quesada (2004) found that supplier selection was the most influential supply management process for achieving product quality. However, a firm's ability to create or enhance its own capability in a strategically important domain such as quality by leveraging supplier capabilities in quality may depend not only on its ability to select a capable supplier in the quality domain but also on its ability to successfully integrate the supplier into the firm's operations and network. Successful supplier selection is a source for competitive advantage; they affect competitive performance of public institutions positively if effectively selected.

Purchasing Price

Kiruja (2014) sought to analyze procurement methods and procurement performance amongst state corporations under the National Treasury of Kenya. The study focused mainly on the procurement methods used by state corporations" under the National Treasury of Kenya and the relationship between the procurement methods and procurement performance in state corporations. From the study findings it was

concluded that purchasing price determined the adopted procurements methods which affect procurement performance of state corporations thus recommended that state corporations should apply suitable procurement methods in regard to pricing to enhance procurement performance.

Quality Management

According to Medori and Steeple (2010), the first, and overriding, feature of TQM is the company's focus on its customers. Quality is defined as meeting or exceeding customer expectations. The goal is to first identify and then meet customer needs. TQM recognizes that a perfectly produced product has little value if it is not what the customer wants. Therefore, we can say that quality is customer driven. Zineldin (2010) indicates that present day managers should ensure that every employee in all parts of the organization places top priority on continuous improvement of customer-driven quality. Under the paradigm of total relationship management (TRM), the firm focuses on all integrated activities within the organization, including internal and external relationships with employees, customers, and collaborators

Technical Expertise

Technical expertise can encourage single sourcing in an organization. Technical specifications, scope of work, and terms of reference are documents that describe what is needed, and should be clear enough to avoid confusing suppliers, contractors, service providers or the evaluation panel. They are also needed to prepare the solicitation (bidding/tender) documents. And if they are not completed ahead of schedule, the procurement process is delayed before it even starts. The reason for delay is usually due to lack of expertise in preparing these documents, or not realizing the extent of the information and research that may be needed to complete them (Wales, 2014).

METHODOLOGY

This study used descriptive research design because according to Mugenda & Mugenda (2008), the purpose of descriptive research was to determine and report the way things were and it helped in establishing the current status of things and help the study to observe, analyze and draw reliable findings. The target population in this study was 86 employees and targeted each division that was involved in the supply chain management at the Kenya Railways. The regression model took the form:

$$Y = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \epsilon_i ;$$

Where: Y = Procurement performance;

χ_1 = Supplier sourcing

χ_2 = Quality Management;

χ_3 = Purchasing price;

χ_4 = Technical expertise

β_0 = the intercept (value of EY when X = 0);

β_{1-n} = the regression coefficient or change included in Y by each χ_i ;

ϵ_i = Error term

RESULTS

Supplier Sourcing

The study sought to assess the influence of supplier sourcing on procurement performance in the public entities in Kenya. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree). Table 1 presents the findings. The scores of 'strongly disagree' and 'disagree' have been taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of 'Neutral' has been taken to represent a statement agreed upon moderately, equivalent to a

mean score of 2.6 to 3.4. The score of 'agree' and 'strongly agree' have been taken to represent a statement highly agreed upon equivalent to a mean score of 3.5 to 5.0. Table 1 presents the study findings.

As tabulated, a majority of respondents were found to disagreed that the organization has the flexible contracting period for reduction of costs in the organization (3.568); The organization has a friendly types of contracts to enhance order fulfilment (3.236); The organization has a dispute resolution mechanism to enhance order fulfilment and reduction of costs (2.908); The organization has a provision on a vague or conflicting requirements to enhance quality of procured goods (2.134); The organization uses contracting period review systems in the procurement process to enhance quality of procured goods (2.565). The organization has a dispute resolution mechanism for a

continuous improvement program to enhance order fulfillment (3.218). The organization has the flexible contracting period for reduction of costs in the 2.890).The study findings imply that supplier sourcing enhance procurement performance in the public entities in Kenya. Gonzalez and Quesada (2004) found that supplier selection was the most influential supply management process for achieving product quality. However, a firm's ability to create or enhance its own capability in a strategically important domain such as quality by leveraging supplier capabilities in quality may depend not only on its ability to select a capable supplier in the quality domain but also on its ability to successfully integrate the supplier into the firm's operations and network. Successful supplier selection is a source for competitive advantage; they affect competitive performance of public institutions positively if effectively selected.

Table 1: Influence of Supplier Sourcing on Procurement Performance in Public Entities

Supplier Sourcing	Mean	Std. Dev
The organization has the flexible contracting period for reduction of costs in the organization	3.568	.439
The organization has a friendly types of contracts to enhance order fulfilment	3.236	.468
The organization has a dispute resolution mechanism to enhance order fulfilment and reduction of costs	2.908	.568
The organization has a provision on a vague or conflicting requirements to enhance quality of procured goods	2.134	.326
The organization uses contracting period review systems in the procurement process to enhance quality of procured goods	2.565	.580
The organization has a dispute resolution mechanism for a continuous improvement program to enhance order fulfillment	3.218	.328
The organization has the flexible contracting period for reduction of costs in the organization	2.890	.346

Total Quality Management

The study sought to assess the influence of total quality management on procurement performance in the public entities in Kenya. This section presents

findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1= Strongly Disagree). Table 2 presents the findings. The scores of 'strongly disagree' and

'disagree' have been taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of 'Neutral' has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of 'agree' and 'strongly agree' have been taken to represent a statement highly agreed upon equivalent to a mean score of 3.5 to 5.0. Table 2 presents the study findings.

As tabulated, a majority of respondents were found to be neutral that the organization purchase is competitive in price (3.786); the organization, satisfactory price and procurement performance rapport is guaranteed (3.291); the organization reports high rates of demand satisfaction as regards product quality (2.908); the organization encourages the supplier to develop new products (2.890); the organization has initiated programs to improve customer satisfaction within the past year (3.213). The organization employees have access to IT specific training to enhance know-how and customer service (2.890). There is regular

consultation with senior management to help teams manage crises in the firm (3.217). The study results indicate that total quality management influence procurement performance in the public entities in Kenya. According to Medori and Steeple (2010), the first, and overriding, feature of TQM is the company's focus on its customers. Quality is defined as meeting or exceeding customer expectations. The goal is to first identify and then meet customer needs. TQM recognizes that a perfectly produced product has little value if it is not what the customer wants. Therefore, we can say that quality is customer driven. Zineldin (2010) indicates that present day managers should ensure that every employee in all parts of the organization places top priority on continuous improvement of customer-driven quality. Under the paradigm of total relationship management (TRM), the firm focuses on all integrated activities within the organization, including internal and external relationships with employees, customers, and collaborators.

Table 2: Influence of Total Quality Management on Procurement performance in Public Entities

Total Quality Management	Mean	Std. Dev
Our organization purchase is competitive in price	3.786	.762
In our organization, satisfactory price and procurement performance rapport is guaranteed	3.291	.902
Our organization reports high rates of demand satisfaction as regards product quality	2.908	.243
Our organization encourages the supplier to develop new products	2.890	.576
The organization has initiated programs to improve customer satisfaction within the past year	3.213	.562
In our firm, employees have access to IT specific training to enhance know-how and customer service	2.890	.451
There is regular consultation with senior management to help teams manage crises in our firm	3.217	.529

Purchasing Price

The study sought to assess the influence of purchasing price on procurement performance in the

public entities in Kenya. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5

= Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1= Strongly Disagree). Table 3 presents the findings. The scores of 'strongly disagree' and 'disagree' have been taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of 'Neutral' has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of 'agree' and 'strongly agree' have been taken to represent a statement highly agreed upon equivalent to a mean score of 3.5 to 5.0. Table 3 presents the study findings.

As tabulated, a majority of respondents were found to be neutral that the product cost determines choice of suppliers or brand to enhance order fulfillment (3.231); The supplier cost affects the timely delivery of goods and services (3.236); The timing of supplier actual delivery performance determines the order fulfillment (2.875); The taxation determines the supplier sourcing for timely delivery of goods and services (3.185); The product cost determines the budget cost and supplier sourcing to enhance order fulfillment in the organization (3.228). The study findings imply that purchasing price influence procurement performance in the public entities in Kenya. Kiruja(2014) stated that in the past it was often the

case that price was paramount as an influence on the buying decision. He went on to suggest that, while price is still important, a major determinant of choice of supplier or brand is the cost of time. The cost of time is simply the additional costs that a customer must bear while waiting for delivery or seeking out alternatives. To evaluate procurement performance using time one would seek to know the timing of supplier's actual delivery performance against promised, time taken to process requisitions and time taken up with remedial action.

Pricing in nearly all types of business is affected by what economist call the price mechanism, which is the theory of supply and demand. There is the notion of an equilibrium price which proposes that at the equilibrium or market price exactly the same quantity is both demanded. In most free market economies the process of equilibrium helps to decide what is produced and what is not produced. To evaluate the procurement performance using price one would seek to know if the price paid against standard market price, price paid for key items compared with market indexes, price paid against budget cost and the price at the time of use against price at the time of purchase(Baily et al, 2008).

Table 3: Influence of Purchasing Price on Procurement performance in Public Entities

Purchasing Price	Mean	Std. Dev
The product cost determines choice of suppliers or brand to enhance order fulfillment	3.231	.431
The supplier cost affects the timely delivery of goods and services	3.236	.893
The timing of supplier actual delivery performance determines the order fulfillment	2.875	.321
The taxation determines the supplier sourcing for timely delivery of goods and services	3.185	.369
The product cost determines the budget cost and supplier sourcing to enhance order fulfillment in the organization	3.228	.426

Technical Expertise

The study sought to assess the influence of technical expertise on procurement performance in the public entities in Kenya. The findings are presented in the Table 4. The data was collected from the different indicators of the technical expertise variable which was ordinally categorical. The data was therefore presented in frequency tables with the mode being used as the appropriate measure of central tendency. Technical expertise had the first indicator that required the organization to state the percentage of employees in the organization who are computer literate ,40% of the respondents had 0-20% , 4% had 20-30% , 15% had 30-40% had 9%, 40-50% and 5% had over 50% The modal class is of the respondents who had between 0 to 20% literacy. The mode was found to be 2 which implies that on average the respondents 0 to 20% of employees in the organization that are computer literacy. Single sourcing is no longer considered a clerical function performed independently by untrained individuals within a governmental agency (National Institute of Governmental Purchasing, 2011). Qualified staff that is competent and skilled would help the organization to achieve its goals and objectives by being efficient and effective when carrying out their various functions. For an organization to succeed, qualification and experience is therefore a pre-requisite and must be matched with job requirement, hence the need to hire and develop ambitious personnel.

Secondly, the respondents were requested to indicate the organization level of automation was, 4% of the respondents had 0-20%, 3% had 20-30%,

6% had 30-40%, 32% had 40-50% and 48% had over 50%. The mode was found to be 5 which implies that on average the organization has over 40%-50% level of automation. The next indicator asked the respondents what the level of procurement systems usage was in the organization, 5% of the respondents had 0-20%, 3% had 20-30% , 56% had 30-40% , 38% had 40-50%, 46% had over 50%. The modal class is of the respondents who had over 50% level of procurement usage. The mode was found to be 5 which implies that on average the organization had over 50% level of procurement systems usage. The last indicator for the variable was the organization level of embracement of inventory procurement systems was. 0% of the respondents 0-20%, 3% had 20-30% , 3% had 30-40% , 31.4% had 40-50% and 60% had over 50% " The modal class is of the respondents who had over 50%. The mode was found to be 5 which implies that on average the organization had over 50% level of embracement of inventory systems. If staff involved in single sourcing is not qualified and competent, then there would be ineffectiveness in the procurement performance of an organization. Bailey and Farmer (1202) says that for procurment function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job. Carter and price (2013) indicate that training of staff is vital if full use is to be made of their abilities and talents. Coe (2009) says that it's important to ensure that sufficient number of the appropriate caliber is available to the organization in pursuit of its objectives. Incompetent employees can render procurement performance of an organization virtually ineffective.

Table 4: Technical Expertise

	0%-20%	20%-30%	30%-40%	40%-50%	Over 50%	Mode
What percentage of employees	40%	4%	15%	9%	5%	1

in the organization is computer literate?						
What is the organization's level of automation?	4%	3%	6%	32%	48%	5
What is the level of procurement systems usage?	5%	3%	6%	38%	46%	5
What is the level of ICT infrastructure?	3%	3%	6%	37%	50%	5
What is the organization's level of embracement inventory sytems	0%	3%	3%	30%	60%	5

Procurement Performance in Public Entities

The study sought to examine the effects of single sourcing on procurement performance in public entities in Kenya, attributed to the influence of supplier sourcing, total quality management, technical expertise and purchasing price. The study was particularly interested in three key indicators, namely reduction of costs, minimization of procurement expenditure, minimization of lead times and level of quality of procured goods and services. The data was collected from the different indicators of the variable procurement performance which was ordinal categorical. The data was therefore presented in frequency tables with the median being used as the appropriate measure of central tendency. The results were presented in table 5. The first indicator for the dependent variable required to know what the organizations level of reduction of costs was, 0% of the respondents had 0-10%, 3% had 11-20%, 11% had 21-30%, 17% had 31-40%, 69% had had over 40%. The modal class is of the respondents who had over 40% organizations level of reduction of costs. The median was found to be 5 which imply that on average the organizations level of reduction of costs

is over 40%. The next indicator required the respondents to state the level of minimization of procurement expenditure in the organization, 3% of the respondents had 0-10%, 3% had 11-20%, 14% had 21-30%, 26% had 31-40%, 49% had over 40%. The modal class is of the respondents who had over 50%. The median was found to be 5 which imply that on average firm's levels of minimization of procurement expenditure was by over 40%. When the respondents were asked what the level of minimization of lead time was, 0% of the respondents 0-10%, 3% had 11-20%, 3% had 21-30%, 34% had 31-40%, 60% had over 40%. The modal class is of the respondents who had over 40% level of minimization of lead time. The median was found to be 5 which imply that on average the level of level of minimization of lead time in organizations is over 40%.

Finally, the respondents were asked what the level of Quality of procured goods and services offered was, 0% of the respondents 0-10%, 3% had 11-20%, 20% had 21-30%, 43% had 31-40%, 34% had over 40%. The modal class is of the respondents who had between 31-40% quality level. The median was found to be 4 which imply that on average the level of quality of procured goods and services offered is between 31-40%.

Table 5: Procurement Performance in Public Entities

Statement	0%- 10%	11%- 20%	21%- 30%	31%- 40%	Over 40%	Mode
What is the level of reduction of costs in the organization?	0	3	11	17	69	5
What is the level of minimization of procurement expenditure?	3	3	14	26	49	5
What is the level of minimization of the lead time in the organization	0	3	3	34	60	5
What is the level of quality of procured goods and services offered?	0	3	20	43	34	4

Multiple Regression Analysis

The multiple regression analysis was used to establish the relation among the variables and as per the model summary Table 6, the coefficient of determination (R^2) is used to measure how far the regression model's ability to explain the variation of the independent variables. The correlation coefficient was 0.842. This indicates a very strong positive relationship between the independent variable and dependent variable. The data showed

that the high R square is 0.709 It shows that the independent variables in the study were able to explain 70.90% variation in the procurement performance in the public entities in Kenya while the remaining 29.10% is explained by the variables or other factors which the study recommends for further study. This implies that these set of independent variables are very significant and they therefore need to be considered in any effort to enhance procurement performance in the organization.

Table 6: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.842	.709	.687	.000

ANOVA Results

From the ANOVA statistics in Table 7, the study established the regression model had a p-value of $0.000 < 0.05$ which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance. The

calculated value was greater than the critical value ($30.961 > 13.764$) an indication that supplier sourcing, purchasing price, total quality management and technical expertise all influence procurement performance in the public entities in Kenya.

Table 7: ANOVA

Model	Sum of Squares	d.f	Mean Square	F	Sig.
Regression	20.645	4	5.1612	30.961	.000 ^a
Residual	10.838	65	.1667		

NB: F-critical Value = 13.764;

Regression Coefficients

The results of multiple regression analysis obtained regression coefficients t value and significance level as indicated in Table 8. The study conducted a multiple regression analysis so as to determine the relationship between the dependent variable and independent variables. The general form of the equation was to predict procurement performance in the public entities from supplier sourcing, purchasing price, technical expertise and total quality management is: $(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon)$ becomes: $Y = 13.873 + 0.863X_1 + 0.642X_2 + 0.563X_3 + 0.521X_4$. This indicates that procurement performance in the = $13.873 + 0.863*$ Supplier Sourcing + $0.863*$ Purchasing price + $0.642*$ Technical Expertise + $0.563*$ Total Quality Management. From the study findings on the regression equation established, taking all factors into account (independent variables) constant at zero procurement performance in the public entities was 13.873.

The data findings analyzed also shows that taking all other independent variables at zero, a unit

increase in supplier sourcing would lead to a 0.863 increase in procurement performance in the public entities; a unit increase in purchasing price would lead to a 0.642 increase in procurement performance in the public entities, a unit increase in purchasing price would lead to 0.563 increase in procurement performance in the public entities and a unit increase in total quality management would lead to 0.521 increase in procurement performance in the public entities. This infers that supplier sourcing contributed most to procurement performance in the public entities. Based at 5% level of significance, supplier sourcing had a t-value ($4.320 > 1.96$) with a .002 level of significance; purchasing price had a t-value ($4.002 > 1.96$) with a .006 level of significance, technical expertise had a t-value ($3.980 > 1.96$) with a .0009 level of significance and total quality management had a t-value ($2.890 > 1.96$) with a .011 level of significance hence the most significant factor was supplier sourcing.

Table 8: Coefficient Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	β		
(Constant)	13.873	.238		5.380	.000
X ₁ _Supplier Sourcing	.863	.200	.522	4.320	.002
X ₂ _Purchasing Price	.642	.160	.458	4.002	.006
X ₃ _Technical Expertise	.563	.141	.388	3.980	.009
X ₄ _Total Quality Management	.521	.180	.376	2.890	.011

CONCLUSION AND RECOMMENDATIONS

From the descriptive statistics the study established that a majority of respondents stated to be neutral that organization has the flexible contracting period for reduction of costs in the organization. The organization has friendly types of contracts to enhance order fulfillment. The organization has a dispute resolution mechanism to enhance order fulfillment and reduction of costs. The organization has a provision on a vague or conflicting requirement to enhance quality of procured goods. The organization uses contracting period review systems in the procurement process to enhance quality of procured. The organization has a dispute resolution mechanism for a continuous improvement program to enhance order fulfillment. The organization has the flexible contracting period for reduction of costs in the organization.

From the study results it was established that a majority of respondents can be said to be neutral that the organization purchase is competitive in price. The organization, satisfactory price and procurement performance rapport is guaranteed. The organization reports high rates of demand satisfaction as regards product. The organization encourages the supplier to develop new products. The organization has initiated programs to improve customer satisfaction within the past year. The organization employees have access to IT specific training to enhance know-how and customer service. There is regular consultation with senior management to help teams manage crises in the organization.

From the study results it was established that the majority of respondents were found to be neutral that the product cost determines choice of suppliers or brand to enhance order fulfillment. The supplier cost affects the timely delivery of goods and services. The timing of supplier actual delivery performance determines the order. The taxation

determines the supplier sourcing for timely delivery of goods and services. The product cost determines the budget cost and supplier sourcing to enhance order fulfillment in the organization

From the descriptive analysis, the study established that a majority of respondents were found to highly agree that there to enhance procurement performance, there is need to ensure that the procurement staff is computer literate to enhance procurement performance. The level of automation should be adequate and level of procurement systems usage should be adequate to enhance procured quality goods. The technology should be adequately observed in the organization procurement process. Most notably, there is need to improve the technology infrastructure to enhance procurement performance in the public entities.

The study sought to establish the effects of single sourcing on the procurement performance in the public entities in Kenya. The quality of goods purchased, timely purchases-stock out reduction and cost reduction further recorded low procurement performance. From inferential statistics, a positive correlation is seen between each determinant variable and low procurement performance. The strongest correlation was established between supplier sourcing and low procurement performance in the public entities in Kenya. All the independent variables were found to have a statistically significant association with the dependent variable at ninety-five level of confidence.

Conclusion of the Study

The study revealed that the supplier sourcing statistically, strongly and significantly correlated to procurement performance in the public entities as it had a positive relationship with the dependent variable. This reveals that supplier sourcing is an important factor that can enhance procurement

performance in the public entities. This also reveals that the more supplier sourcing if well managed the more procurement performance in the public entities. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of supplier sourcing on procurement performance in the public entities was achieved because it established that it influences procurement performance in the public entities in Kenya.

The study revealed that the total quality management statistically, strongly and significantly correlated to procurement performance in the public entities as it had a positive relationship with the dependent variable. This reveals that total quality management is an important factor that can enhance procurement performance in the public entities. This also reveals that the more total quality management if well managed the more procurement performance in the public entities. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of total quality management on procurement performance in the public entities was achieved because it established that it influences procurement performance in the public entities in Kenya.

From the descriptive statistics the purchasing price statistically, strongly and significantly correlated to procurement performance in the public entities as it had a positive relationship with the dependent variable. This reveals that purchasing price is an important factor that can enhance procurement performance in the public entities. This also reveals that the more purchasing price managed the more procurement performance in the public entities. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of purchasing price on procurement performance in the public entities was achieved

because it established that it influences procurement performance in the public entities in Kenya.

Finally, from the descriptive statistics the technical expertise statistically, strongly and significantly correlated to procurement performance in the public entities as it had a positive relationship with the dependent variable. This reveals that technical expertise is an important factor that can enhance procurement performance in the public entities. This also reveals that the more technical expertise managed the more procurement performance in the public entities. Therefore, from these quantitative results it can be deduced that the study which sought to establish the influence of technical expertise on procurement performance in the public entities was achieved because it established that it influences procurement performance in the public entities in Kenya.

Recommendations for the Study

In the light of the findings and conclusions, the following recommendations are hereby proposed: Efforts must be made to implement those TQM practices which are not being effectively practiced in the study area so as to help improve on procurement performance in the organizations. There is the need to employ quality functional deployment. This will enable quality systems to be built on customer needs and wants and also exceed customer expectations. When this is done it will help in addressing the issues of poor customer relations as well as prevent loses of customers as a result of not meeting customers' expectations in terms of price. It is recommended that the company subscribe to a quality award system. For instance it should subscribe to ISO certification which can help them to put in place all the measures as well as practice TQM to the highest level.

The study recommends that there is need for the improvement on the purchasing prices especially the services and works cost more to enhance procurement performance in the organization. The organization purchasing price should be based on the suppliers cost as determined by the organization. The strategic sourcing should focus on searching for low-cost and high-value materials; developing technology and inventory control more efficient.

The study recommends that to enhance procurement performance in the public entities in Kenya, there is need to ensure that procurement staff is computer literate to and have adequate and level of procurement systems usage should be adequate to enhance procured quality goods. The ICT should be adequately observed in the organization procurement process. Most notably, there is need to improve the IT infrastructure to

enhance in the procurement process, funding, timely delivery of goods and services as well as qualified manpower and training.

Areas for Further Studies

Due to constraints highlighted in the first chapter, this study could not exhaust all the effects of single sourcing on the procurement performance in the public entities in Kenya. The four independent variables that were studied explain 70.90% of the procurement performance in public entities in Kenya. This therefore means that other factors not studied in this research contribute 29.10% to the procurement performance in public entities in Kenya. Therefore other factors affecting procurement performance in public entities in Kenya need to be established. These may include the existing procurement planning, training; supplier relationship management among others needs further investigation.

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