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Accepted: October 13, 2017

ABSTRACT

The objective of the study was to assess the influence of procurement practices on the performance of logistic firms in Kenya. Specifically, the study sought to; establish the extent to e-procurement affects the performance of logistic firms in Kenya and to determine the effect of procurement planning on the performance of logistic firms in Kenya. This study adopted a descriptive survey design. The target population for this study was 400 comprising of the procurement manager in each of the logistic firms in Kenya. The study used a sample size of 80 firms and applied simple random sampling methods in generating the sample. The study used a primary data collected using a questionnaire. Statistical package for social sciences (SPSS) computer software for data analysis was used to conduct the data analysis task. The statistics generated included descriptive statistics and inferential statistics. Microsoft excel was used to complement SPSS especially in production of diagrams and tables. The qualitative data generated from open ended questions were categorized in themes in accordance with research objectives and reported in narrative form along with quantitative presentation. A multiple linear regression model was used to test the significance of the influence of the independent variables on the dependent variable. It was notable that there existed a strong positive relationship between the independent variables and dependent variable. The studied variables were very significant therefore needed to be considered in any effort to boost performance of logistics firms in Kenya. Based on the study findings, the study concluded that performance of logistics firms in Kenya was affected by E-procurement and procurement planning were the major factors that mostly affected performance of logistics firms in Kenya. Therefore other factors affecting performance of logistics firms in Kenya needed to be established. These may include the legal framework, contract management and staff competency among others needs further investigation.

Keywords: E-procurement, Procurement Planning, Performance of Logistic Firms in Kenya
INTRODUCTION

Procurement is broadly defined as acquisition of goods, services, capabilities and knowledge required by businesses, from the right source, at the right quality, in the right quantity, at the right price and at the right time to maintain and manage the company’s primary and support activities (Giunipero et al, 2006). The high level procurement activities include: determining of specifications in terms of required quality and quantities; selecting of right suppliers to provide the required goods and services; establishing agreements with suppliers; supplier relationship management; placing orders with the selected supplier (Dahwa, 2010).

Thai (2001) describes two types of goals in the procurement system: non procurement goals and procurement goals. Procurement goals are primarily associated with quality, reduction of financial and technical risks, and protection over competition and integrity in the system. Non procurement goals usually involve the economic, social, and political goals within the system. Procurement is an ever-growing means of conducting business in many industries around the world (Karanja & Kiarie, 2015). In their discussion of competitive purchasing strategies required for the twenty-first century, Monczka and Morgan (2000) stated that firms must maximize the use of procurement practices based decisions such as e-procurement in every aspect of the business, linking across all members of the supply chain, increasing the speed of information transfer, and reducing non value adding tasks.

Clearly, the use of strategic based procurement has the potential to significantly impact national economies as well as the competitive position of individual firms. The construct, procurement practices represents a theoretical fusion of definitions of procurement and traditional purchasing strategy, which currently exist in the literature (Karanja & Kiarie, 2015). Procurement practices according to Sollish and Semanik (2012) are a set of activities undertaken by an organization to promote effective management of its supply chain or to improve performance of the integrated supply chain. The Chartered Institute of Purchasing and Supply (CIPS) UK, one of the world’s leading professional body in purchasing and supply defines procurement practices as how a buying firm conduct its procurement activities. According to CIPS, the six critical success factors shaping firms’ procurement practices include: leadership and accountability; knowledge of the consequences of procurement practices; firms ability to manage stakeholder conflicting priorities; thinking and acting beyond short-term horizons; managing relationships in the supply chain, and responsible use of power in the supply chain. According to (Hines, 2006), procurement practices manifest a combination of a firm’s commercial principles and values. Procurement practices take many forms and incorporate a range of activities – from defining of business needs; and preparation of business cases; through assessment of market capability; the development and implementation of procurement strategies, assessments of supply related risk; and formation and development of appropriate buyer-supplier relationships (Bailey et al. 1998; Hines, 2004). As such, the procurement function is a multifaceted and often complex discipline that involves delivery of multiple outcomes; innovative solutions and contract arrangements; long-term concession periods and innovative risk allocation and relational exchanges essential to assist the business deliver on its objectives. To effectively and efficiently deliver on its obligations it is critical that key stakeholders are involved in the procurement arrangements to make sure that decisions are jointly made and supported from the start to the end of the procurement process. These practices may include building supplier relationships, team-based approaches to procurement and proper use of technology or e-procurement.
Most companies use strict rules on procurement processes that must be followed by the whole organization with contract value thresholds dictating the procurement practices to be adopted. Generally, good procurement practices should be competitive—whether it be comparing quotations for low value purchases, right up to formal tender process for high risk, high value contracts. There is a number of different procurement practices choice of which depends on different firms’ policies, complexity and value of the procurements (Dahwa, 2010). Until the second half of the 20th century, procurement practices were viewed as not being important to business performance and competitiveness. According to Bailey et al., (2005), recent developments in global markets have led to evolution of firms’ procurement practices. Several research findings identified a number of environmental factors influencing looming developments in procurement practices such examples include the 1973 Oil crisis; scarcities of essential commodities; and the continued demand for effective and efficient sourcing and procurement practices (Bailey et al 2005).

Effective implementation of procurement practices entails implementation of strategies to be followed when making organization purchasing decisions. These include building supplier relationships, team-based approaches to procurement and proper use of technology or e-procurement (UNEP, 2007). Previous researchers have used both financial and non-financial measures for measuring firm performance. The financial measures include return on assets, market share, Return on Investment, Operating Profit, growth rates in domestic and export sales growth. Similarly, the non-financial measures of performance include management’s perception of productivity, profitability, market share, and customer satisfaction relative to competitors (Bag, 2012).

With the increase of the global competition and the rapid progress of the IT technology, the logistics industry has become one of the most influential subjects of the 21st century. The scope and role of logistics have changed dramatically over recent years. In the past, logistics has played a supportive role to primary functions such as marketing and manufacturing. Now the scope of logistics has expanded beyond its traditional coverage of transportation and warehousing activities to include purchasing, distribution, inventory management, packaging, manufacturing, and even customer service. More importantly, logistics has dramatically evolved from a supportive role characterized as passive and cost absorbing, to a primary role and critical factor in competitive advantage (Sum & Teo, 1999). Companies experiencing growing pressure to reduce costs and provide better service can improve their logistics by outsourcing to logistics firms, an option that can improve both efficiency and effectiveness. The Outsourcing Institute highlighted that companies gain a 9% costs saving and a 15% increase in capacity and quality, on average, through outsourcing (Elmuti, Kathawala, & Maonippallil, 1998). LSPs, often also referred to as Third Party Logistics Service Providers (3PLs), carry out the logistic activities for one or more companies within the supply chain; functioning as an intermediary (Lai et al., 2004). The functions of 3PLs or LSPs can be divided in: warehousing, transportation, customer service, and inventory and logistics management (Sink et al., 1996), (Vaidyanathan, 2005). Logistics service providing is an industry under great pressure. Margins are small, and therefore LSPs continuously seek for opportunities to make their business more profitable. That can be, for example, by scaling up or expanding their activities outside their home country (Lemoine et al., 2003).

South Africa is still performing well if compared to some developing countries. For example, South
Africa, as one of the BRICS countries, is closely behind China, but far ahead of Russia, India and Brazil on the index. East African countries have had mixed rankings with Tanzania ranked the highest at position 88 while Kenya dropped in ranking to position 122. Rwanda and Burundi followed closely at positions 139 and 155 respectively (Langat, 2013). East Africa is one of the major areas with more of the private logistics companies situated and has much potential to become a hub. Furthermore, the volumes of trade between Eastern Africa and the major areas are too small to warrant regular direct lines that would call in Mombasa and Dar es Salaam. For example, the total trade of Eastern Africa to Europe is only around 100,000 TEUs both ways. The only direct to Mombasa and Dar es Salaam are from the Far East. Direct service from North Europe has been cancelled in mid-2004 (Ngobo & Stephany, 2007).

According to the Kenya Economic Survey 2013, Transport and Logistics has a direct effect on each and every sector of the economy as well as a great potential on promoting economic growth in Kenya. The logistics industry accounts for 5 to 10% of the Gross Domestic Product (GDP) in Kenya (GoK, 2012). It is estimated that about 5 million jobs are involved in logistics in Kenya. Logistics service providers (LSP) are facilitators that help an organization to provide timely delivery of the raw material, semi-finished and finished goods, whether externally or internally, using different modes of transportation such as sea, land or air (Ochido & Ochiri, 2014).

Statement of the Problem

Failure to implement or delayed implementation of recommended procurement practices has resulted in unnecessarily high operation costs, poor inventory control, unacceptable supplier appraisals standards, uncoordinated business activities, and failure to attract and retain experienced and skilled personnel in the procurement positions, thus affecting the function’s performance in many logistics firms (Chimwani, Iravo, & Tirimba, 2014). According to the Kenya Economic Survey 2013, transport and logistics has a direct effect on each and every sector of the economy as well as a great potential on promoting economic growth in Kenya.

However, the performance of logistic industry in Kenya has been wanting. For instance, the World Bank’s Logistics Performance Index showed that among the East African countries, Tanzania ranked the highest at position 88 while Kenya dropped in ranking to position 122 in 2013 (Langat, 2013). The East Africa Logistics Performance Survey 2014 ranked Kenya’s logistics sector as one of the two most inefficient in the region. The survey conducted by the Shippers Council of Kenya ranks Rwanda in top position, followed by Uganda and Tanzania. A study conducted by Mwangi (2016) focusing on logistic firms in Nairobi county found that there was low rate increase of profits and low rate of reduction in costs among these firms in the last five years (2011 to 2015) and this was linked in part to poor procurement practices. Despite the crucial role played by the procurement function in these firms, no much study has been conducted to establish the level of adoption and the extent to which the performance of these firms had been affected. A review of the existing literature showed that much of the studies linking procurement practices to performance of companies have concentrated on the public sector and the manufacturing sector. For instance, Mokogi et al., (2015) focused on the effects of procurement practices on the performance of commercial state owned enterprises in Nairobi County; Nderitu and Ngugi (2014) studied the effects of green procurement practices on an organization performance in manufacturing industry; Bag (2012) focused on world class procurement practices and its impact on firm performance: a selected case
study of an Indian manufacturing firm; Makabira and Waiganjo (2014) focused on Role of procurement practices on the performance of corporate organizations in Kenya in the case of Kenya National Police Service. Ngunyi (2014) focused on procurement practices and the performance of parastatals in Kenya. On a study conducted by Mwangi (2016) focused on the influence of procurement practices on the performance of logistic firms, specifically in Nairobi County. It is on this premise the study sought to fill this gap by examining the influence of procurement practices on performance of logistics firms in Kenya.

Objectives of the Study

The purpose of the study was to assess the influence of procurement practices on the performance of logistic firms in Kenya. The specific objectives of the study were:

- To establish how e-procurement influence the performance of logistic firms in Kenya
- To determine how procurement planning influence performance of logistic firms in Kenya.

LITERATURE REVIEW

Theoretical Framework

Diffusion Innovation Theory

This theory guided the study investigate the relationship between E-procurement and performance in logistic firms in Kenya The Diffusion of Innovation Theory was developed by E.M Rogers in 1962 and was established to explain how over time, an idea or product gains momentum and spreads through various social systems. The end result is that people, as part of a social system either adopt or reject a new innovation, behavior or product. The key to adoption is that a person must perceive an idea, behavior or product as new or innovative; it must add some kind of value to that person’s life. A substantial literature exists that investigates Inter-organizational information systems (IOS), and IT adoption, diffusion and use. The assimilation of e-Procurement initiative can be an issue of technology diffusion and adoption of innovation. Obviously, innovation diffusion theory can be used to understand e-Procurement assimilation as the theory has also been extensively used recently as a fundamental theoretical base of innovation adoption research in the field of IS/IOS (Palmer & Butt, 2008). As the adoption of e-Procurement as an innovation generates uncertainty, the procurement organization must be aware of the relative advantage and risk of implementing such innovation. Although the attributes suggested by IDT include relative advantage, compatibility, complexity, trial ability, and observability, only two variables relative advantage and compatibility (of an innovation with existing practices and values) have been consistently found to be positively related and only variable complexity (that is degree to which an innovation is perceived as relatively difficult to understand and use) has been consistently found to be negatively related to adoption of innovation (Cummings & Qiao, 2013). As the different public sector agencies with different adoption intensity can perceive the characteristics of an innovation differently, Angel, (2012) suggest taking perception-based characteristics of innovation into account rather than the inherent characteristics of the technology that do not vary across settings and organizations.

Resource Based View (RBV) Theory

The RBV developed as a complement to the industrial organization view with Bain (1968) and Porter (1985) as some of its main proponents. With its focus on the structure conduct-performance paradigm, the industrial organization view put the determinants of firm performance outside the firm,
in its industry's structure. Being positioned against this view, the RBV explicitly looks for the internal sources of sustained competitive advantage and aims to explain why firms in the same industry might differ in performance. As such, the RBV does not replace the industrial organization view; rather it complements it (Peteraf & Barney, 2003). It adopts two assumptions in analyzing sources of competitive advantage Peteraf and Barney (2003). First, this model assumes that firms within an industry (or within a strategic group) may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may persist over time because the resources used to implement firms’ strategies are not perfectly mobile across firms. Resource heterogeneity (or uniqueness) is considered a necessary condition for a resource bundle to contribute to a competitive advantage. The argument goes “If all firms in a market have the same stock of resources, no strategy is available to one firm that would not also be available to all other firms in the market, Cool et al (2002). RBV proponents argue that simultaneously valuable, rare, inimitable and non-substitutable resources can be a source of superior performance and may enable the firm to achieve sustained competitive advantage. The RBV of the firm is therefore a suitable approach to understanding the competitive dynamics whereby resources are intangible and tangible assets linked to the firm in a semi-permanent way, including: technological, human and physical assets. However, having resources alone is not sufficient; therefore, RBV theory adds a category of capabilities which result from complex patterns of interactions and coordination between resources (Wong & Karia, 2010). RBV maintains that resources and capabilities are often synergistic in nature and can be more valuable when combined. RBV proposes that firms have different resource endowments and that the manner in which they require, develop, maintain, bundle and apply them leads to the development of competitive advantage and superior performance over time. RBV tenets prescribe that resources and capabilities, for instance bundle of resources need to be valuable, rare, inimitable and organizationally utilizable, for example a firm has complementary resources to leverage and maximize capabilities to drive sustainable competitive advantage. In general, RBV theory indicates that exploiting a firm’s non-imitable resources enables a firm to create long-lasting competitive capabilities and to generate a competitive advantage (Paulraj, 2011). According to resource-based views, firms perform well and create value when they implement strategies that exploit their internal resources and capabilities. This theory will be used to explain the relationship between the selected procurement practices and performance of the firms. It will be significant in explaining how firms can adopt excellent procurement practices as form of capabilities and sources of competitive advantage so as to improve their performance especially when such capabilities are applied alongside the resources allocated by the firms.

**Conceptual Framework**

**Independent Variables**
- E-Procurement
- Procurement Planning

**Dependent Variable**
- Performance of Logistic Firms
  - Profitability
  - Quality of service delivery
  - Market share

**Figure 1: Conceptual Framework**
E-Procurement

In order for organizations to be competitive and stay updated, there is need to have a paradigm shift in the way procurement is carried out so as to solve numerous procurement problems evident in the business world especially in developing economies which include increased corruption, high costs of doing businesses, a lot of non-value adding paper work procedures, long time elapse to respond to tenders and non-competitiveness (Chartered Institute of Purchasing and Supplies, 2011).

Parida and Parida (2005) define e-procurement as a technology solution that facilitates corporate buying using the Internet. E-Procurement refers to the use of Internet-based (integrated) information and communication technologies (ICTs) to carry out individual or all stages of the procurement process including search, sourcing, negotiation, ordering, receipt, and post-purchase review (Croom & Brandon-Jones, 2004). While there are various forms of e-Procurement that concentrate on one or many stages of the procurement process such as e-Tendering, e-Marketplace, e-Auction/Reverse Auction, and e-Catalogue/Purchasing, e-Procurement can be viewed more broadly as an end-to-end solution that integrates and streamlines many procurement processes throughout the organization. Although the term end-to-end e-Procurement is popular, industry and academic analysts indicate that this ideal model is rarely achieved (Department of Information Resources, 2001) and e-Procurement implementations generally involve a mixture of different models.

The benefits of e-Procurement have been verified by many leading companies worldwide, and e-Procurement is a significant tactic in most companies’ e-Business strategies (Deloitte Consulting, 2011). The consensus is that e-Procurement benefits organizations with respect to procurement cost and process efficiency associated with procurement activities. This is due to web-based e-Procurement solutions can support four major B2B tasks in organizations: search, processing, monitoring and control, and coordination (Subramaniam & Shaw, 2002). E-procurement enhances inter-organizational coordination, resulting in transaction cost savings and competitive sourcing opportunities for the buyer firm Subramaniam & Shaw (2002). Against the backdrop of demand and supply-side economics, e-procurement is able to support increased and more complex coordination. Unstructured and complex purchases involve a higher level of coordination and require more human interaction, within the organization as well as with business partners. Neilson et al. (2000) state that instead of bureaucratic, hierarchical structure, organizations should form more flexible, decentralized team and alliance based networks that allow employees to react to market shifts.

Procurement Planning

According to Agaba and Shipman (2007), procurement planning is the process used by companies or public institutions to plan purchasing activity for a specific period of time. This is commonly completed during the budgeting process. Each year, departments are required to budget for staff, expenses, and purchases. This is the first step in the procurement planning process. Burt et al. (2004), further defines procurement planning as the purchasing function through which organization obtain products and services from external suppliers. A good procurement plan will go one step further by describing the process you will go through to appoint those suppliers contractually. Whether you are embarking on a project procurement or organizational procurement planning exercise, the steps will be the same. First, define the items you need to procure. Next, define
the process for acquiring those items. And finally, schedule the timeframes for delivery.

The contribution of procurement planning is perceived in terms of quality, delivery, cost and flexibility, which has an impact on the competitive capability of the firm to meet customer requirements (Saunders, 1997). Industry Manual, (2008) counsels that a procurement plan is an instrument for implementation of the budget and should be prepared by the user departments with a view to avoiding or minimizing excess votes in the entities’ budgets and to ensure that procurements do not proceed unless there are funds to pay for them. This implies that all procurement plans must be well integrated into the budget process based on the indicative budget as appropriate and in compliance with the procurement law.

Lynch asserts that (2016) procurement planning is important because; it helps to decide what to buy, when and from what sources; it allows planners to determine if expectations are realistic; particularly the expectations of the requesting entities, which usually expect their requirements met on short notice and over a shorter period than the application of the corresponding procurement method allows; it is an opportunity for all stakeholders involved in the processes to meet in order to discuss particular procurement requirements; it permits the creation of a procurement strategy for procuring each requirement that will be included in the procurement plan; planners can estimate the time required to complete the procurement process and award contract for each requirement; the need for technical expertise to develop technical specifications and/or scope of work for certain requirements can be assessed, especially where in-house technical capacity is not available or is non-existent and planners can assess feasibility of combining or dividing procurement requirements into different contract packages.

**Performance of Logistics Firms**

Firms strive to be as competitive as possible, so that they can maximize the number of goods and services that they provide. In so doing, they try to operate as efficiently as possible. However, it is very difficult for a firm to determine whether or not they are operating efficiently without evaluating their performance. One way for firms to evaluate their efficiency levels is to measure them with the help of a quantitative model, (Svensson, 2012). By measuring its actual efficiency levels, a firm has a better idea of how it is performing based on certain criteria. It highlights the areas of weakness in the firm and therefore makes it easier for the firm to make the changes necessary to improve their overall efficiency levels. The same basic concept can be used for a supply chain. However, for logistics it is important that the role players take the efficiency of the entire supply chain into consideration when determining the efficiency levels. On logistics level it is also possible for firms to identify bottlenecks that can be worked on in order to improve the overall efficiency of the logistic function, (Svensson, 2012).

Delaney et al, (2006) point that logistics firms performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee relationships. On the other hand, Hoque et al, (2000) in their study of organizational performance based on balanced scorecard, stated that organizational performance can be appraised by return of investment, margin on sales, capacity utilization, customer satisfaction and product quality. In the same way, Greene et al, (2007) identified that return on investment, sales and market growth, and profit are important factors that can be measured by organizational
performance. In all these performance measures, procurement practices have a positive relationship or generally affect the level of organizational performance.

**Empirical Review**

**E-Procurement**

Amin (2012) conducted a study on electronic procurement and organizational performance among commercial state corporations in Kenya. The study adopted a descriptive research design where a sample size of 40 respondents who were selected through stratified sampling was involved in the study. Primary data was collected from supply chain officers by use of a questionnaire. The findings indicate that commercial state corporations in Kenya have adopted e-procurement but there are several functions they still perform manually. These include, short listing of suppliers, call for proposals and tendering process. It was also established that e-procurement has led to cost reduction, improved transparency, it improves the flow of information enables the organization to streamline processes and accountability among others.

Ho, Tai, Wu, and Jou (2008) explored the impacts of web-based e-procurement on organizational performance. From organizational and inter-organizational perspectives, this study proposed a performance impact model of implementing Web-based e-procurement system for direct procurement. In the performance impact model, the strategic dimension was about partner relationship, and the operational efficiency dimension included supplier performance, buyer performance, process integration, and process automation. Based on a survey of Taiwanese manufacturing firms, the results of the study showed that the electronic execution of purchasing activities improved both the operational efficiency dimension and the strategic dimension. The results demonstrated that implementing Web-based e-procurement system not only enhanced the performance of the buyer organization but also enhanced the performance of the supplier organization and improve partner relationship management.

Macharia and Ochiri (2014) examined the effect of e-procurement implementation on performance of hospitality institution case of Kenya Utalii College. The study adopted research questions. A descriptive research design was used in this study. The target population was all staff of Kenya Utalii College drawn from list from Human Resource department. The study found out that: cost saving, buyer-supplier integration, cycle time reduction and information flow all affected implementation of performance at the Kenya Utalii College to a large extent. The study concluded that Kenya Utalii College can employ effective cost management on e-procurement for long term and the ability to expand and maintain a large and loyal customer base by implementing the use of technological innovations and ICT.

Aiming at establishing the relationship between E-procurement on the performance of selected service organizations in Uganda; Zakari, Sharifai, Mubaraka, and Agaba, (2013) used survey design on 202 employees and found that there is a significant relationship between E-procurement and performance of the organizations. Accuracy, convenience and smooth work flow and accepting vast amounts of data which facilitated growth and expansion were ranked as the major benefits. The overall objective of a study by Shale (2014) was to examine the role of e-procurement strategy on the performance of state Corporations in Kenya. A cross-sectional survey was used in this study. The study findings revealed there was a significant positive relationship between the components of e-
procurement strategy namely customer service level strategy, procurement cost reduction strategy, inventory optimizations strategy, buyer/supplier collaboration strategy and audits and compliance strategy and performance of state corporations. The study recommended that state corporation should have a good e-procurement software system as it would help them greatly reduce the time and effort required to complete purchasing transactions by eliminating traditional paper chain of requisitions, approvals, receiving and payment reconciliation.

**Procurement Planning**

Onyango (2014) examined the effects of procurement planning on public institutions performance with focus on specific objectives, cost estimation, need assessment and quality specifications. The study was based on the procurement models, PPOA manual, PPDA Act (2005), and PPDR (2006). The study adopted a descriptive research design. The study was conducted at the Mombasa Law Court. The study findings revealed that there was a significant statistical relationship between procurement planning and performance. Procurement plans therefore influenced procurement performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance was assured. Lack of proper planning through effective identification of user needs in an organization creates an avenue of unethical practices in procurement department such as corruption and improper use of resources, excess budget votes therefore integration of procurement planning into budgetary process is important in an institutional framework.

Aladejebi and Adedeji (2015) investigated the effects of procurement planning on agricultural firms’ performance in Ondo State, Nigeria. The research involved selected agricultural firms that major in processing and manufacturing sectors of agribusiness within two senatorial districts in Ondo State, Nigeria. The findings revealed that there was positive relationship between procurement planning and agricultural firms’ performance. The study revealed that the sampled organizations had a very weak functional ERP system used in procurement process. The study confirmed that procurement planning was the primary function that set the stage for subsequent procurement activities. Furthermore, some factors were considered in relation to procurement planning obstacles that are limiting the performance of selected agricultural firms in the study area, all these factors such as top management problems were found to have negative effects on the performance of agricultural firms and improvements in them will lead to better productivity and performance.

Wogube (2011) studied the effect of procurement planning on service delivery in public enterprises, a case study of Sironko town Council. The findings of the study revealed that there is a strong positive relationship between procurement planning and service delivery. The study found out that Procurement planning sets in motion the entire procurement process of acquiring services in local government and that it also facilitates efficient and effective service delivery in public sector organization. Basheka (2009) sought to address the effects of procurement planning on Local Governance in Uganda. The findings were from a study conducted among key political and administrative stakeholders from 11 local governments in Uganda. A questionnaire was used for data collection. The data was analyzed using principal component factor analysis. The results
indicated a very significant positive relationship between procurement planning and local governance in Uganda. The study concluded that the vast resources local governments spent on the function of buying goods, services and works essential for their operations required adequate procurement planning. The suggestions were made for local government political and administrative stakeholders as well as policy makers in Uganda on the critical issues of procurement planning essential for local governance.

Makabira and Waiganjo (2014) sought to establish the role of procurement practices on performance of Kenya National Police Service in Makueni County. One of the specific objectives of the study was to establish the role of procurement planning on the performance of Kenya National Police Service. The target population was the 120 procurement personnel in this institution. Stratified sampling and simple random sampling techniques were employed in the selection of 48 respondents. The study findings revealed that procurement planning played a great role in the performance of this institution. The study concluded that Kenya National Police Service undertakes planning decision to make purchase. This involved deciding whether there was a need for the particular goods or services and would equally involve ensuring that the purchaser had the legal powers to undertake the transaction, obtaining any relevant approvals within the government hierarchy and arranging the necessary funding. The study concluded that Kenya National Police Service did not seriously carry out market capability analysis in order to determine where to procure from. This was contrary to a study by (Byokusheka, 2010) that to secure goods and services at competitive prices required accurate planning and involvement of a number of stakeholders.

Nantege (2011) assessed the effect of procurement management on the financial performance of banks in Uganda with a case study of FINA Bank Uganda Ltd. One of the objectives reviewed was procurement planning and how it affected the performance of banks. It was hypothesized in the study that procurement planning positively affects the performance of banks. Empirical data was collected from the staff of FINA Bank Uganda and the sample was selected using purposive sampling. The hypothesis that procurement planning positively affects the performance of FBUL was accepted. The study emphasized that the business unit needed to clearly state when they would use the required goods and services; extent of supplies (quantities) to be procured at a time being independently determined by the committee; only personnel with legal powers to purchase should undertake such transactions in the bank; decisions on when to procure the goods and services be independently undertaken by the procurement committee; the bank procurement process needed to begin with planning; full commitment of top management to the procurement planning process of the bank and relevant approvals to be obtained from the bank authorities for all procured items among others.

**METHODOLOGY**

This study adopted a descriptive survey design. The Kenya Revenue Authority had 400 logistics firms registered and operating in the country, Kenya. The heads of the procurement of the logistics firms acted as the target population for the study. The unit of analysis was logistics firms. The study used simple random sampling to come up with a sample size. The study used primary data. Primary data according to Mugenda and Mugenda (2012) refers to information that a researcher gathers from the field. The questionnaires were self-administered with the help of research assistants. The questionnaires were administered through a drop
and pick method as well as through mail. The study collected both quantitative and qualitative data. After quantitative data was obtained through questionnaires, it was prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed into statistical package for social sciences (SPSS) computer software for analysis.

**FINDINGS AND DISCUSSIONS**

The study targeted a total population of 80 respondents from which 60 filled in and returned the questionnaires making a response rate of 75%. This response rate was satisfactory to make conclusions for the study. The study sought to establish the gender distribution of the respondents. From the results, both male and female respondents participated in the study and results show that 50.00% were male, 37.14% were female and 12.86% of the respondents did not indicate their gender.

In order to establish the ages of the respondents who participated in this study, a total of 70 respondents answered this question and the findings show that 53.85% of the respondents were aged between 18 to 35 years, 32.76% were more than 35 years old while 13.39% did not indicate their age. The findings were in agreement with those of Price & Banham (2011) who established that there were two natural age peaks of the late 20s and mid 40s which are correlated to procurement regulatory compliance in state corporations in Kenya.

The respondents were kindly requested to state their level of education and from the study findings, 16% had diploma, 32% had bachelors and 29% had reached secondary school certificates, 10% cited to have acquired primary level of education and 15% had no formal education but hands on skills.

**Study Variables**

**E-Procurement**

The study presented findings to survey questions asked with a view to establish the influence of E-Procurement on performance of logistics firms in Kenya. Responses were given on a five-point likert scale (where 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1= Strongly Disagree). The scores of ‘strongly disagree’ and ‘disagree’ had 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 5.4. Table 1 presents the findings.

As tabulated, a majority of respondents were found to highly agreed that computerized tendering process was in a position to help the players maintain a good quantity level that would help them have regular supply (3.33); online communication helps synchronize and balance the two opposing business objectives of achieving ultimate customer service at a low cost (2.87); E-Procurement help companies assess tradeoffs to meet their customer’s needs, but in a way that allows them to make a profit (3.09); the computerized tendering process as a supply chain technology helps increase forecast accuracy (3.11); Online communication helps to create plans attuned to the market, execution of reliable transportation, warehousing and distribution to ensure cost-effective order fulfillments and on-time deliveries (3.20). The foregoing findings depict moderate to high levels of contract management on procurement regulatory compliance in the organization. This implies that E-procurement influence performance of logistics firms. This finding supports Odhiambo and Kamau (2010) who argues that the use of computerized procurement systems
demonstrates efficient use of information technology but in cases where the organization subjects all its procurement functions to manual procedures, the benefits of information technology are not experienced and a high level of inefficiency is experienced during execution of procurement procedures especially in the logistics firms.

### Table 1: Influence of E-Procurement on Performance of Logistics Firms

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerized tendering process is in a position to help the players maintain a good quantity level that would help them have regular supply</td>
<td>3.333</td>
<td>.098</td>
</tr>
<tr>
<td>Online communication helps synchronize and balance the two opposing business objectives of achieving ultimate customer service at a low cost</td>
<td>2.879</td>
<td>.982</td>
</tr>
<tr>
<td>E-Procurement help companies assess tradeoffs to meet their customer’s needs, but in a way that allows them to make a profit</td>
<td>3.098</td>
<td>.358</td>
</tr>
<tr>
<td>Computerized tendering process as a supply chain technology helps increase forecast accuracy</td>
<td>3.112</td>
<td>.320</td>
</tr>
<tr>
<td>Online communication helps to create plans attuned to the market, execution of reliable transportation, warehousing and distribution to ensure cost-effective order fulfillments and on-time deliveries</td>
<td>3.200</td>
<td>.228</td>
</tr>
</tbody>
</table>

**Procurement Planning**

The study present findings to survey questions asked with a view to establish the influence of procurement planning on performance of logistics firms in Kenya. Responses were given on a five-point likert scale (where 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1= Strongly Disagree). The scores of ‘strongly disagree’ and ‘disagree’ had been taken to represent a statement not agreed upon, equivalent to mean score of 0 to 2.5. The score of ‘Neutral’ had 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 5.4. Table 2 presented the findings.

As tabulated, a majority of respondents were found to highly agree that organization prepared an annual Procurement plan (3.567); Organization procurement plan had description of the requirement (2.908); Organization procurement plan had the estimated value of the requirement (3.329); Organization procurement plan details the procurement method (3.228); Organization involved the User Department in formulating annual procurement plans (3.119). Organization adheres to the Procurement plans (3.201); The organization does annual prequalification of bidders (3.280); Awarding of all tenders is guided by the evaluation criteria (3.110). The foregoing findings depict moderate to high levels of contract management on
procurement regulatory compliance in the organization. This implies that procurement planning influence performance of logistics firms. This finding supports corroborates with literature review by Lynch (2016) who stated that the contribution of procurement planning is perceived in terms of quality, delivery, cost and flexibility, which has an impact on the competitive capability of the firm to meet customer requirements. It is important because; it helps to decide what to buy, when and from what sources; it allows planners to determine if expectations are realistic; particularly the expectations of the requesting entities, which usually expect their requirements met on short notice and over a shorter period.

Table 2: Influence of Procurement Planning on Performance of Logistics Firms

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization prepares an annual Procurement plan</td>
<td>3.567</td>
<td>.543</td>
</tr>
<tr>
<td>Organization procurement plan has description of the requirement</td>
<td>2.908</td>
<td>.679</td>
</tr>
<tr>
<td>Organization procurement plan has the estimated value of the requirement</td>
<td>3.329</td>
<td>.218</td>
</tr>
<tr>
<td>Organization procurement plan details the procurement method</td>
<td>3.228</td>
<td>.210</td>
</tr>
<tr>
<td>Organization procurement plan details the expected award date</td>
<td>3.119</td>
<td>.273</td>
</tr>
<tr>
<td>Organization involves the User Department in formulating annual procurement plans</td>
<td>3.201</td>
<td>.353</td>
</tr>
<tr>
<td>Organization adheres to the Procurement plans</td>
<td>3.280</td>
<td>.361</td>
</tr>
<tr>
<td>The organization does annual prequalification of bidders</td>
<td>3.229</td>
<td>.365</td>
</tr>
<tr>
<td>Awarding of all tenders is guided by the evaluation criteria</td>
<td>3.110</td>
<td>.540</td>
</tr>
</tbody>
</table>

Performance of Logistics Firms

The performance in the logistics companies was determined by looking into the implementation of the E-Procurement and procurement planning. The study was particularly interested in three key indicators, namely increase of profits, quality of service and market share, with all the three studied over a 5 year period, running from 2012 to 2016. Findings in Table 4.8 above reveal improved performance across the 5 year period running from the year 2012 to 2016. Profitability recorded positive growth with a majority affirming to less than 10% in 2012 (42.3%) and 2013 (37.7%), to 10% in 2014 (36.1%) then more than 10% in 2015 (41.1%) and 2016 (37.5%). A similar trend was recorded in improvement in quality of service, growing from less than 10% (44.1%) in 2012, to more than 10% in 2013 (36.4%), 2014 (40.4%) and
2015 (37.3%). Quality of service further recorded positive growth with a majority affirming to less than 10% in 2012 (37.9%) and 2013 (35.9%), to 10% in 2014 (35.9%) and 2015 (35.3%) then by more than 10% in 2016 (36.2%).

It was deduced from the findings that key performance indicators had considerably improved as influenced by among other procurement management attributes, the influence of e-Procurement and procurement planning, Order fulfillment, cost reduction and lead time reduction had particularly improved by at least 10 percent across most of the logistics companies pointing to the significance of quality policy, supplier management, ICT integration and contract management in the supply chain process.

Table 3: Performance of Logistics Firms

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Profits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved by less than 10%</td>
<td>42.3</td>
<td>37.7</td>
<td>31.6</td>
<td>30.7</td>
<td>29.5</td>
</tr>
<tr>
<td>Improved by 10%</td>
<td>31.8</td>
<td>32.9</td>
<td>36.1</td>
<td>28.2</td>
<td>33</td>
</tr>
<tr>
<td>Improved by more than 10%</td>
<td>25.9</td>
<td>29.4</td>
<td>32.3</td>
<td>41.1</td>
<td>37.5</td>
</tr>
<tr>
<td><strong>Quality of Service Delivery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced by less than 10%</td>
<td>44.1</td>
<td>35.2</td>
<td>33.4</td>
<td>25.7</td>
<td>27.1</td>
</tr>
<tr>
<td>Reduced by 10%</td>
<td>31.7</td>
<td>32.6</td>
<td>30.2</td>
<td>33.9</td>
<td>35.6</td>
</tr>
<tr>
<td>Reduced by more than 10%</td>
<td>23.5</td>
<td>32.2</td>
<td>36.4</td>
<td>40.4</td>
<td>37.3</td>
</tr>
<tr>
<td><strong>Market Share</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved by less than 10%</td>
<td>37.9</td>
<td>35.9</td>
<td>31.2</td>
<td>25.7</td>
<td>33.1</td>
</tr>
<tr>
<td>Improved by 10%</td>
<td>36.2</td>
<td>31.3</td>
<td>35.9</td>
<td>35.3</td>
<td>30.7</td>
</tr>
<tr>
<td>Improved by more than 10%</td>
<td>25.9</td>
<td>32.8</td>
<td>32.9</td>
<td>39</td>
<td>36.2</td>
</tr>
</tbody>
</table>

CONCLUSION AND RECOMMENDATIONS

The study established that E-procurement influenced performance of logistics firms. The computerized tendering process helped the players maintain a good quantity level which help them have regular supply. The online communication helped synchronize and balance the two opposing business objectives of achieving ultimate customer service at a low cost. E-Procurement helped companies assess tradeoffs to meet their customer’s needs, but in a way that allowed them to make a profit. The computerized tendering process as a supply chain technology helped increase forecast accuracy. Online communication helped to create plans attuned to the market, execution of reliable transportation, warehousing and distribution to ensure cost-effective order fulfillments and on-time deliveries.

From the descriptive analysis, the study established that a majority of respondents were found to highly agree that organization prepared an annual
Procurement plan. The organization procurement plan had description of the requirement and had the estimated value of the requirement. The organization procurement plan detailed the procurement method and involved the user department in formulating annual procurement plans. The organization adhered to the procurement plans and did annual prequalification of bidders. The awarding of all tenders was guided by the evaluation criteria.

The study sought to establish the influence of procurement practices on performance of logistics firms, attributed to the influence of E-procurement and procurement planning over a 5-year period, running from 2012 to 2016. Increase of profits, quality of service and market share recorded low performance. From inferential statistics, a positive correlation was seen between each determinant variable and performance. The strongest correlation was established between procurement planning and performance of logistics firms. Both independent variables were found to have a statistically significant association with the dependent variable at ninety-five level of confidence.

**Conclusion of the study**

Based on the study findings, the study concluded that performance of logistics firms in Kenya is affected by E-procurement and procurement planning, being the major factors that mostly affected performance of logistics firms in Kenya.

The study concluded that procurement planning influenced performance of logistics firms in Kenya. The regression coefficients of the study showed that E-procurement had a positive significant influence on performance of logistics firms in Kenya. This implied that increasing levels of E-procurement would increase the levels of performance of logistics firms in Kenya.

**Recommendations of the study**

To enhance performance of firms there was need to ensure that the procurement staff was computer literate to comply with the rules and regulations. The level of automation should be 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 to boost performance of the firms.

The study recommended for effective procurement planning which is usually in the procurement process and there is need to develop the skills of the employees on developing quality procurement plans based on the approved budgets. The top level and lower level employees should be involved in formulation and development of the procurement plans so as to make the process of implementation easier and acceptable by all employees. The procurement personnel are in logistics firms need to carefully study and understand the applicable procurement thresholds in different situations and relevant procurement method applicable.

**Areas for Further Research**

Due to constraints, this study could not exhaust all the procurement practices which influence performance of logistics firms in Kenya. Other factors affecting performance of logistics firms in
Kenya need to be established. These may include the legal framework, contract management and staff competency among others needs further investigation.

REFERENCES


