



The Strategic
**JOURNAL of Business & Change
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)



www.strategicjournals.com

Volume 5, Issue 4, Article 1

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Mutua, T. N., & Moronge, M.

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Mutua, T. N.,^{*1} & Moronge, M.²

^{*1} Msc. Candidate, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

² Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Nairobi, Kenya

Accepted: September 29, 2018

ABSTRACT

The main objective of the study was to establish the effect of supply chain practices on procurement performance of state corporations in Kenya. The study adopted a descriptive survey research design. The study target population was 152 heads of procurement from the state corporations in Kenya. The study used questionnaires as the main data collection instrument. The findings of the study revealed that the four supply chain practices of outsourcing, distribution management, inventory management and procurement planning positively and significantly influenced procurement performance of state corporations in Kenya. The study concluded that an improvement in various indicators of outsourcing would significantly improve the procurement performance of state corporations in Kenya. The study also concluded that a positive change in various indicators of inventory management practices will significantly improve the procurement performance of state corporations in Kenya. The study recommended that in order for the state corporations in Kenya to improve their procurement performance, there is need to focus on outsourcing practices such as outsourcing of some of the services, outsourcing personnel who have a remarkable focus on core competencies, embracing technical capacity in outsourcing to reduce spending on staff, emphasizing technical capacity to develop business relationships and become competitive, and playing a key benchmarking role to other players in the market through risk transfer. The study also recommended that state corporations in Kenya should strive to adopt distribution management practices such as proper product tracking to reduce warehousing costs, product labeling for high valued inventories, ensuring that there is the use of warehouse management system to improve cost reduction, adopting FIFO system to enhance timely deliveries and improve customer satisfaction and using automated tools and techniques for order processing to enhance timely deliveries in the corporation. The study also recommended that state corporations in Kenya should pay close attention to inventory management practices such as ensuring that there is tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials, having correct forecasting methods thus reduction of stock outs, ensuring that there is no obsolete and excessive inventory to reduce operational costs.

Key Words: Outsourcing, Distribution Management, Inventory Management, Procurement Planning, Performance

INTRODUCTION

Supply chain activities involve the transformation of natural resources, raw materials, and components into a finished product that is delivered to the end customer (Stadtler, 2015). Supply chain management is important for success in the economy as it was for Roman Empire world dominance (Govindan, Soleimani, & Kannan, 2015). Successful supply chain management requires cross-functional integration within the firm and across the network of firms that comprise the supply chain (Mburu, 2012). Many companies initially focus on supply chain management as a way to improve customer satisfaction and reduce operational inefficiencies. While doing this, the company improves visibility and control over its supply chain, which also leads to better financial performance. Supply chain management is essential to the company's competitive capacity.

Nowadays, especially with the globalization and IT industry development, companies are not competing as individuals but as part of the supply chain in the global environment (Strombom 2011). How to cut cost, improve quality and also operate effectively is every company's principle through the supply chain management. With substantially cheaper labor and cost, many companies in the developed countries have started sourcing in the booming economics in China and some other countries. This is also the trend of global supply chain. However, low product price in emerging economics comes together with more communication efforts, longer delivery time, bigger purchase quantities and high inventory level. A minor company therefore finds it rather difficult sometimes to optimize their strategies, and resolve the quality problems. Benefit and cost are closely linked with supplier performance (Kariuki & Mburu, 2013).

Globalization is one of the most significant factors, which drives the supply chain to be more complex and diverse. Therefore supply chains are longer and

more complex and contractors and subcontractors are numerous. Ford (2012) emphasized that the supply chain relationship is therefore critical in today's globalised world. Due to the number of rival companies expanding both locally and globally, companies not only have to reestablish themselves to produce higher-quality products and services, decrease waste and are able to respond to the market but also to handle their supply chain management efficiently. Organizations are facing different kinds of challenges in their effort of competing in today's dynamic global markets. To remain competitive, organizations must recognize the importance of supply chain practices that improve not only their own organizational performance, but also coordinate with their supply chain partners to improve their joint performance. Yet, despite the significant advances in research and practices, many organizations continue to struggle to understand the complex issues associated with the coordinated planning and supply activities amongst the members of their supply networks (Lori, 2011).

It is important that the top and highest management in a company understand what Supply Chain Management is and its importance. These people are deciding about the strategies and focus areas for the company. They have to show interest for SCM and make it visible within the own company to get the right focus for all employees within the company and get a good result. The Supply chain has in the industry for a long time been something that just should work and nothing that the management has to put focus on the managers in the Supply chain are the critical dimension writes (Koh, Gunasekaran, & Tseng, 2012).

In Kenya supply chain practices are applied in public Health Institutions to contribute greatly in maintaining the availability of essential drugs in public health institutions. The supply chain sequence begins with the basic suppliers of raw materials and extends all the way to the final consumers. Facilities include; Warehouses, processing centers, distribution

centers, retail outlets or service centers. Function and activities include forecasting, inventory management, information management, quality assurance, scheduling, production, distribution, delivery and customer service (Mburu, 2012). Supply chain management is a business practice that aims at improving the way a business sources its raw materials, and delivers its final product to the end users. Rajaguru & Matanda, (2013) noted that it is a further development in managing the supply base and therefore a development of the purchasing function. Kariuki and Mburu (2013) believes that physical distribution (logistics) has been expanded into the broader concept of supply chain management. Besides logistics, other functional areas such as marketing finance and operations management made an equally significant contribution Hugo (2014). Despite the fact that there is no generally agreed definition, supply chain management is generally intended to cover all business processes between vertically linked organizations (Bask & Juga 2011).

The study covered all state corporations which consist of Financial Corporations, Commercial and Manufacturing Corporations, Regulatory Corporations, Public Universities, Training and Research Corporations, Tertiary Education and Training Corporations, Service Corporations and Regional Development Authorities (SCAC, 2015) and thus was assumed to represent the views of the state corporations in Kenya. For the purpose of this study, the population of the study included 152 state corporations. List of names of the firms is obtained from the Presidential Task force report (2016). Many of these corporations are normally engaged in a lot of activities ranging from farming, manufacturing, training, processing, and welfare of workers among others. This has necessitated them to search for ways of offloading some of these activities for efficiency and competitiveness. Many of the studies which have been carried out have only covered specific state

corporations which do not portray or bring out the reality of supply chain practices and their effect on procurement performance in the public sector.

Statement of Problem

In Kenya, the state corporations spend about Kshs. 180 billion per year on procurement. However on annual bases, the national government losses close to Ksh. 76 billion about 17 per cent of the national budget due lack of supply chain practices used such as inflated procurement quotations (KISM 2014). According to Public Procurement Oversight Authority (PPOA 2014), most of the tendered products/services in many county governments have a mark-up of 60 per cent on the market prices. The inefficiency and ineptness of overall selection and implementation of supply chain practices contributes to loss of over Ksh.50 million annually (Tom 2014). Muchira (2013) indicated that over 70 percent of key government contracts in Kenya are affected due to improper supply chain practices. In 2015-16, further statistics show that of the 30 percent contract value that went to outsourcings, only less than a third of the total contracts met the expected standards while two-thirds failed due to poor implementation of supply chain practices (RoK, 2017b). A research conducted by Apiyo and Mburu, (2014) revealed that there is a drastic increase in the pressure on organizations to find new ways to create and deliver value to customers to improve on their supply chain performance. Supply chain performance is influenced by contingent factors that lie beyond the realm of strategy and structure. Poor Supply chain performance can reduce shareholder value by as much as 8 to 10 % or even worse in time-sensitive environments where early market introduction is critical to success (Rajaguru & Matanda, 2013).

The inability of state corporations to effectively implement supply chain practices which country consuming about 20% of the GDP and up to 60% of the annual budget (Nzai & Chitere, 2013) is a serious

problem given that state corporations 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 presented a gap for research to establish the reasons behind such a lackluster adoption of supply chain practices to enhance procurement performance in the state corporations in Kenya.

Objectives of the Study

The main objective of the study was to establish the effect of supply chain practices on procurement performance of state corporations in Kenya. The specific objectives were:-

- To establish the effect of outsourcing practices on procurement performance of state corporations in Kenya
- To examine the effect of distribution management practices on procurement performance state corporations in Kenya
- To determine the effect of inventory management practices on procurement performance of state corporations in Kenya
- To assess the effect of procurement planning practices on procurement performance of state corporations in Kenya

LITERATURE REVIEW

Theoretical Review

Agency Theory

The principal agent theory as advocated by Freeman, (2011) explains that procurement managers in public sector play the relationship role. It helps to explain the role of public procurement personnel in discharging their mandate. Prier explains that an agency relationship is a contract under which one or more persons engages another person to perform some service on their behalf which involves delegating some decision making authority to the

agent. It is merely assumed that the principal and the agent do not share the same levels of information, and as such, the agent can opportunistically take advantage of the situation, sometimes to the detriment of the principal.

This theory holds that shirking is likely to occur when there is disagreement between policy makers and bureaucracy. The democratic perspective focuses on responsiveness to citizens and their representatives (Mahmood, 2010). However, Gebauer, Beam & Segev (2008), identifies this principle-agent relationship among the possible risks whereby procurement managers show apathy towards principal preferred outcomes or even overriding of the principal's preferences thus resulting into non-compliance. Azeem (2009) states that the proponents of this theory argue that for increasing participation of the publics' in the procurement processes. Such participation is likely to enhance the scope of monitoring and enforcement of procurement decisions by public agents and shift the responsibility from the elected representatives to the taxpayers, who are the main principals. The theory therefore supports outsourcing on organization procurement performance the theory also in agreement that outsourcing affect procurement performance of state corporations in Kenya.

Institutional Theory

Gilbert, (2010) observe that there is no single universally agreed definition of institution or institutional theory. Accordingly, institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. The three pillars of institutions include regulatory, normative and cultural with by all MDAs cognitive. The regulatory pillar emphasizes use of rules, laws and sanctions as enforcement mechanism, with expedience as a basis for compliance. The normative pillar refers to norms

and values, social obligation being the basis of compliance. The cultural-cognitive pillar rests on shared understanding. In Kenya, public procurement is guided by PPDA, 2005 and PPDR, 2006, treasury circulars and guidelines which are issued from time to time and PPOA regulations which must be complied.

According to Griffith & Cattroll (2013) institutional environment can strongly influence the development of formal structure in an organization which if they improve technical efficiency in first adopting organizations becomes legitimized within the environment. However, these formal structures of legitimacy can reduce efficiency in performance and hinder the organization's competitive position in the technical environment. Rahim (2008) conclude that to reduce the net negative effect, organizations adopt homogenous structures because of pressures.

In the public sector for instance, coercive pressures from legal mandates or influence from other entities they are dependent upon such as donors and development partners arise during high uncertainty times causing need for change in organizational functioning. This theory sheds light on institutional and organizational efficiency (Bartle, 2012). The theory therefore supported distribution management to enhance procurement performance in the state corporations.

Pareto Analysis Theory (ABC Classification) of Inventory Management

ABC classification is a method of classifying inventory items according to the dollar value to a firm. Class A items though smaller volumes but tends to generate higher sales value followed by the class B items. The class C items are of a very large volume but generate a very small sales value. Class A items normally range from 5% to 20% of all inventory items and account for between 50% and 80% of sales value. The class B items normally range from 20% to 40% of all inventory items and account for 20% to 40% of sales value. The class C items normally constitute 50% to

70% of all inventory items and account for 5% to 25% sales value (Roach, 2005). Fitzsimmons, (2004) reported that is the basis for material management processes and help to define how stock is managed and is an appropriate technique for classifying inventory items according to the importance of their contribution to the annual cost of the entire inventory system. The theory therefore supported inventory management to enhance procurement performance in the state corporations.

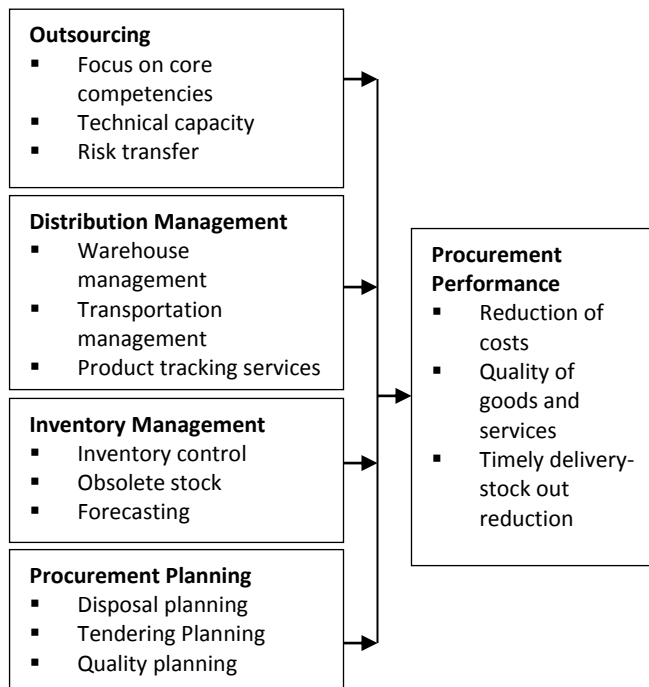
Product Life Cycle Theory

The theory of product life cycle is based on the experience of the United States market. Vernon himself observed and found that a large proportion of the world's new products came from the US for most of the 20th century. The United States at the time was the initiator of the new technologically driven products of the time (Morgan, & Hunt, 2013). The theory suggests that early in a product's life-cycle all the parts and labor associated with that product come from the area in which it was invented. A commonly used example of this is the invention, growth and production of the personal computer with respect to the United States. The theory provides a discussion basing on five stages which include introduction, growth, maturity, saturation and declining. Under introduction, new products are introduced to meet local/ national needs, and new products are first exported to similar countries, countries with similar needs, preferences, and incomes (Sacconi, 2010).

In the new product stage, the product is produced and consumed in the US; no export trade occurs. In the maturing product stage, mass-production techniques are developed and foreign demand (in developed countries) expands; the US now exports the product to other developed countries. In the standardized product stage, production moves to developing countries, which then export the product to developed countries (Stadtler, 2015). The second

stage, growth is whereby a copy product is produced elsewhere and introduced in the home country and elsewhere to capture growth in the home market. This moves production to other countries, usually on the basis of cost of production (Sameer & Krob, 2005). The theory therefore supported procurement planning to enhance procurement performance in the state corporations.

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

Outsourcing

With the increasing globalization, outsourcing has become an important business approach, and a competitive advantage may be gained as products or services are produced more effectively and efficiently by outside suppliers (Yang, Seongcheol, Changi & Jawon, 2007). Outsourcing allows firms to focus on their own core competences by relocating limited resources to strengthen their core product or service and to strategically use outside vendors to perform service activities that traditionally have been internal

functions (Elmuti, 2004). Outsourcing can also involve the transfer of both people and physical assets to the supplier (Chase, Shanker & Aquilano, 2010).

The increasingly challenging global environment means that the public sector must be reshaped to enhance efficiency and responsiveness to the needs of those whom they serve (Public Service Commission, 2010).

Outsourcing has become an important business strategy because it enables public sector to reduce and control operating costs, to improve company focus, to gain access to world class capability and to free internal resources for other purposes. Outsourcing has been used as part of the new public management agenda with the aim of increasing efficiency and decreasing costs. Consequently, its effects on productivity remain a factor to be considered by management in decision making (Kiptum & Njihia, 2012).

Distribution Management

Distribution explains the way products are delivered to end customers (Chang, 2010). Choosing the right distribution strategy is one of the most important choices for marketing and has serious impact on business' future success. Regardless of what the product or service is, providing it in the right place at the right time and at reasonable overweighs all other marketing efforts (Sufian & Qrunfleh 2010). Regardless what the distribution objective is, company must remember the convenience for customers; being able to deliver the product in the place, time and quantity customer prefers and at the minimal possible cost (Wagner, 2011).

A supply chain management strategy requires an end-to-end supply chain focus that supports integration of business processes such as purchasing, manufacturing, selling, and logistics throughout the chain for the purpose of providing optimum value to the ultimate customer/consumer (Wisner, 2013).

Implementation of such a strategy requires that actions be taken to strengthen relationships and develop trust among supply chain partners to facilitate the integration of processes throughout the supply chain from suppliers' supplier to ultimate consumer/consumer (Cohen & Roussel, 2005; Wisner, 2003).

Inventory Management

Gonzalez and Gonzalez (2010) posit that the economic order quantity (EOQ) is the order quantity that minimizes total holding and ordering costs for the year. It gives a good indication of whether or not current order quantities are reasonable. According to Porteus (2008) the assumptions of inventory management model is that the firm knows with certainty how much items of particular inventories will be used or demanded for a specific period of time. Shapiro (2009) argues that the use of inventories or sales made by the firm remains constant or unchanged throughout the period. The model also assumes that the moment inventories reach zero level, the order of replenishment of inventory is placed without delay.

According to Blanchard (2010) radio frequency identification system (RFIDS) is de of identification where an item's identification is taken in which the reading and recoding of the data is executed using modern technology. This form of technology is useful in minimization of costs for companies since this process is efficient compared to manual process. This enhances integration of supply chain systems through improved sharing of information leading to supply chain performance.

Procurement Planning

A procurement planning is a method by which items are purchased from external suppliers. The procurement management planning involves managing the ordering, receipt, review and approval of items from suppliers (Frazelle, 2012). A

procurement planning also specifies how the supplier relationships will be managed, to ensure a high level of service is received. This is a critical task in Procurement Management. In essence, the procurement process helps to get what you have paid for (Ford, 2010).

Procurement planning is the process used by companies or public institutions to plan purchasing activity for a specific period of time (Agaba & Shipman, 2007). 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 practices 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

Procurement Performance

Kelle (2014) defined supply chain management as the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole. (D'Aveni 2012). The foundation of supply chain management is underscored in this definition in that supply chain management focuses on the optimization of system-wide performance, not the narrow interests of single partners. Li *et al.*, (2005) defined SCM practices as the set of activities that organizations undertake to promote effective Management of the Supply chain, SCM practices are described include supplier partnership, outsourcing, cycle-time compression, continuous process flow and

information technology (IT) sharing, supply chain practices is a way of reducing duplication effects by focusing on core competencies, and use inter-organizational standard such as activity based costing or EDI and eliminating unnecessary waste along the supply chain.

Empirical Review

Outsourcing practices

Mburu, (2017) examined the effects of outsourcing strategy on procurement performance among universities in Kenya. The study found that contracting, comprehensive outsourcing, licensing agreement and selective outsourcing strategies were main determinants of procurement performance of universities in Kenya. The target population was all university (66) entities in Kenya. The study collected both primary and secondary data. The study recommend that universities should put more emphasis on training and information sharing in order to improve procurement performance, all procurement process should be automated so as to reduce the error rates and discrepancies in the process and align their procurement procedures to Public Procurement and Disposal Act since efficient procurement process could be used as competitive advantage.

Distribution Management

A study by Ristovska, Kozuharov and Petkovski, (2017) examined the Impact of Logistics Management Practices on Company's Performance. The study aimed at analyzing the impact of company's logistics management including transportation, warehousing, packaging, inventory and information management to the efficiency and effectiveness. The findings of the study revealed that reducing cost of each logistics activity influences the total amount of costs and enhances company's performance. The study determined and defined the logistics activities that are of key importance to the company's success. The study was conducted on a sample of eighty

examinees from eighty different companies in the Republic of Macedonia. Adequate inventory, storage, warehousing, transport and information management are key targets for logistics managers in order to reduce the overall costs of the company. Findings include the confirmation of the necessity of logistics managers to optimally manage all logistics activities in order to gain increased business efficiency, customer satisfaction and competitiveness.

Inventory Management

A study by Oballah, Waiganjo, and Wachiuri (2015) on the effect of inventory management practices on Organizational performance in Public health institutions in Kenya used KNH as a case study. The specific objectives were to establish: the effect of inventory shrinkage, inventory investment, inventory turnover, and inventory records accuracy on organizational performance of Kenyatta National hospital. A descriptive case study design was used. Statistical analysis was carried out using SPSS. The study revealed that inventory investment and inventory records accuracy have a positive influence on organizational performance while inventory shrinkage have a negative effect on organizational performance thus recommended that the hospital should ensure that losses resulting to inventory shrinkage related to medicines are reduced. This can be done by ensuring that inventory records are accurately kept.

A study by Masudin, Kamara, Zulfikarijah and Dewi (2018) on the impact of inventory management and procurement practices on organization's performance in Singapore examined inventory management and procurement practices and their impact on organizational performance. The performance measures examined in the research were financial performance and customer satisfaction. The method used was secondary data collection by gathering information relating to inventory management and procurement practices from different articles,

journals and books of various researchers. The results of this study found that automated procurement practice like e-product enhance organizational performance; implementation of world class procurement practices also enhance organizational performance. The study also found that inventory management enhance organizational performance.

Procurement Planning

Metobo, (2016) examined procurement planning practices and service delivery of state corporations in Kenya. The study was guided by four objectives: to determine the effect of Proper Need Assessment on institution's service delivery; to determine the effect of Procurement Cost Estimation on institution's service delivery; to determine the effect of Quality Specification of goods on institution's service delivery and; to determine the effect of risk management in procurement planning on service delivery. This study adopted a descriptive survey research design. The study involved 100 respondents with 94 questionnaires duly completed. The findings of the study reveal that procurement planning practices affect service delivery in state corporations.

A study by Aladejebi and Adedeji, (2015) examined the effect of procurement planning on the performance of selected agricultural firms 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. One hundred and five questionnaires were administered among the staff thirty five selected agricultural firms within the study area. The method of data analysis adopted was descriptive statistics (mean and standard deviation). The findings revealed that most of the firms used as sample had a very weak functional Enterprise Resource Planning (ERP) system used in procurement activities. The study also showed all the identified challenges had severe effect on agricultural firms' performance. The study

recommended that agricultural firms should introduce the use of ERP system in managing their inventories, because it is a powerful tool for planning.

Procurement Performance

Measuring procurement effectiveness can be explained through three important factors; the effect on organization's economic performance, the effectiveness of supplier relationship management and how procurement correlates with the organization's corporate strategy (Frazelle, 2012). The development of procurement function and its effects on organization's performance depend on two factors the monetary value and the cost saving opportunities. Especially when the value and volume of the purchases is high, the opportunities to save money should be utilized. Efficient development of the procurement function can prove to be very financially profitable and result in higher profits for the organization (Zwass, 2007).

Awino and Gituro (2009) focused on SCM practices in large private manufacturing firms in Kenya. The preliminary tests employed the use of Kaiser Mayer-Olkin (KMO) and Bartlett's Test. A sample of 52 large private manufacturing companies, which are members of Kenya Association of Manufacturers (KAM) was used. To establish SCM practices, 39 variables were used to measure the level of application among those firms. The variables were analyzed using factor analysis procedure to achieve a simple and meaningful structure that is, have a nonzero loading of the explained variance for each individual factor. As a result 11 critical factors were established as the best practices: Operating policies, linkages within supply chain firms, improved performance, information technology systems strategic alliances, performance measures, goal orientation, customer and relationships, guidelines and procedures supplier selection and supplier evaluation. When benchmarked, these practices were

found to be universal and compared with the best practices globally.

METHODOLOGY

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure (Babbie, 2007). This study employed a descriptive research design. According to the Presidential Task Force report (2016) there were a total of 152 state corporations in Kenya. The state corporations were grouped in 8 categories in accordance with their mandate. The study adopted a census technique with respect to the unit of analysis which was 152 state corporations in Kenya. The study collected data from the respondents by the use of an open-ended questionnaire. The study used multi-linear regression model to measure the relationship and significance of the independent variables against the dependent variable (Cooper & Schindler, 2006).

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

Where:

Y = Procurement Performance

X₁ = Outsourcing

X₂ = Distribution channels

X₃ = Inventory Management

X₄ = Procurement Planning

ε = Error Term

FINDINGS AND DISCUSSION

Descriptive Findings and Analysis

Descriptive findings were used to establish the percentage, mean and standard deviation of the responses on the various variables of the study on a Likert scale of 1-5. The standard deviation was also presented to indicate the magnitude of variations in

the responses for all the variables in the study. The study weighed the rating on a scale of 1-5 with 1=strongly disagree (SD), 2=disagree (D), 3=Not sure (NS), 4=agree (A) and 5=strongly agree (SA) and presented the mean response per statement for all the study variables.

Outsourcing Practices

The study sought to establish the effect of outsourcing practices on procurement performance of state corporations in Kenya. The average responses on various statements regarding the effect of outsourcing practices on procurement performance of state corporations in Kenya were as indicated in Table 1. The results of the study indicated that majority of the heads of procurement who were the respondents, 40% and mean 4.12, strongly agreed that outsourcing of services relieved the corporation from worrying about the massive capital that would have been spent, 35.7% of the respondents also agreed while 20.9% were not sure and only 3.5% of the study respondents disagreed with the statement. The standard deviation value of 0.86 implied low variation in responses on this statement. The results also showed that most of the respondents, 53%, agreed that the outsourced personnel had a remarkable technical focus on core competencies because it is their line of specialty, with 47% of the respondents also agreeing and none of the study respondents disagreed with the statement. The standard deviation value of 0.5 confirmed that the variation in respondent responses on the statement was low.

Further, the results revealed that majority of the respondents, 72.2%, strongly agreed that the technical capacity embraced in outsourcing results to staff reduction resulting to a reduction in spending, 25.2% of the respondents also agreed and 2.6% of the respondents were not sure. The standard deviation value of 0.52 implied low variation in responses on this statement. On the same note, the results showed

that majority of the respondents, 40%, strongly agreed that technical capacity was important because of outsourcing, the corporation had developed business relationships and become competitive, 9.6% of the respondents also agreed while 29.6% were not sure. However 10.4% of the respondents disagreed that technical capacity was important because of outsourcing, the corporation has developed business relationships and become competitive with the mean value of 3.5 further confirming the results. The standard deviation value of 1.49 revealed high variation in the responses on this statement.

The results also showed that majority of the respondents, 72.2% and mean value of 3.99, agreed

that the corporation served as a bench mark to other players in the market through risk transfer, 14.8% strongly agreed while 10.4% of the respondents were not sure. The standard deviation value of 0.79 revealed high variation in the responses on this statement. On average, the results of the study showed that majority of the respondents as indicated by a mean value of 4.16 agreed that outsourcing practices influenced procurement performance in their respective corporations. The results of the study were consistent with the argument by Asare and Prempeh, (2014) that contracting, comprehensive outsourcing, licensing agreement and selective outsourcing strategies are the main determinants of procurement performance.

Table 1: Outsourcing practices

Statement	SD	D	NS	A	SA	Mean	Std Dev
Outsourcing of services at organization relieves the organization from worrying about the massive capital that would have been invested.	0.00%	3.50%	20.90%	35.70%	40.00%	4.12	0.86
The outsourced personnel organization have a remarkable technical savvy (focus on core competencies) because it is their line of specialty	0.00%	0.00%	0.00%	53.00%	47.00%	4.47	0.50
The technical capacity is embraced in outsourcing at organization results to staff reduction resulting to reduced spending.	0.00%	0.00%	2.60%	25.20%	72.20%	4.70	0.52
Technical capacity is important because of outsourcing, organization has developed business relationships and become competitive	18.30%	2.60%	29.60%	9.60%	40.00%	3.50	1.49
Organization serves as a bench mark to other players in the market through risk transfer	0.00%	2.60%	10.40%	72.20%	14.80%	3.99	0.60
Average						4.16	0.79

Distribution Management Practices

The study also sought to establish the effect of outsourcing practices on procurement performance of state corporations in Kenya. The average responses on various statements regarding the effect of

distribution management practices on procurement performance of state corporations in Kenya were as indicated in Table 2. The results of the study indicated that majority the respondents as indicated by 41.7% and mean value of 4.1 strongly agreed that proper product tracking reduces warehousing costs, 28.7%

also agreed while another 28.7% were not sure proper product tracking reduced warehousing costs. The standard deviation value of 0.88 implied low variation in the responses on the statement.

The results of the study also indicated that majority of the respondents, 50.4% and mean value 4.5, strongly agreed that product labeling was critical for high valued inventories, 49.6% also agreed while none of the respondents disagreed with the statement. The standard deviation value of 0.5 confirmed low variation in the responses. Similarly, majority of the respondents as indicated by 72.2% and mean value of 4.7 strongly agreed that the corporation had ensured that there was the use of warehouse management system to improve cost reduction, 25.2% also agreed while 2.6% were not sure whether there was the use of warehouse management system to improve cost reduction.

The results further showed that majority of the respondents as shown by 39.1% and mean value of 3.52 strongly agreed that the corporation had adopted the practices FIFO system to enhance timely deliveries and improve customer Satisfaction, 11.3%

of the respondents also agreed while 28.7% were not sure. The standard deviation value of 1.46 indicate high variation in the responses on this statement. Finally, majority of the respondents, 73.9% and mean 3.97 agreed that there was the use of automated tools and techniques for order processing to enhance timely deliveries, 13% of the respondents also agreed while 10.45 were not sure whether there was the use of automated tools and techniques for order processing to enhance timely deliveries. On average, the results of the study revealed that majority of the respondents, mean 4.16, agreed that applying distribution management practices influenced procurement performance of the state corporations in Kenya.

The results of this study were consistent with the study findings of Green *et al.*, (2008) in their research on the US firms on the impact of logistics performance on organization performance in supply chain context and revealed that a success of logistics performance brought about manufacturing performance, future growth and new product introduction.

Table 2: Distribution Management Practices

Statement	SD	D	NS	A	SA	Mean	Std Dev
Proper product tracking reduces our warehousing costs	0.90%	0.00%	28.70%	28.70%	41.70%	4.10	0.88
Product labeling is critical for high valued inventories	0.00%	0.00%	0.00%	49.60%	50.40%	4.50	0.50
The organization has ensured that there is the use warehouse management system to improve cost reduction	0.00%	0.00%	2.60%	25.20%	72.20%	4.70	0.52
The organization has adopted the practices FIFO system to enhance timely deliveries and improve customer satisfaction	16.50%	4.30%	28.70%	11.30%	39.10%	3.52	1.46
There is the use of automated tools and techniques for order processing to enhance timely deliveries in the organization	0.00%	2.60%	10.40%	73.90%	13.00%	3.97	0.58
Average						4.16	0.79

Inventory Management Practices

The study further sought to establish the effect of inventory management practices on procurement performance of state corporations in Kenya. The average responses on various statements regarding the effect of inventory management practices on procurement performance of state corporations in Kenya as indicated in Table 3 showed that majority of the respondents, 37.4% and mean value 4.06, strongly agreed that the corporation had ensured that there was tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials, 31.3% agreed while 31.3% of the study respondents were not sure whether the corporation had ensured that there was tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials. The standard deviation value of 0.83 implied low variation in the responses on this statement.

The results also showed that most of the respondents as shown by 52.2% and mean value 4.48 agreed that there were correct forecasting methods thus reduction of stock outs in the corporation, 47.8% of the respondents strongly agreed and none of the study respondents disagreed with the statement. The standard deviation value of 0.5 implied low variation in the responses. On the same note, majority of the respondents, 70.4 and mean value of 4.66, strongly agreed that the corporation had ensured there was no obsolete and excessive inventory to reduce operational costs, 25.2% of the respondents agreed while 4.3% of the respondents were not sure. The

standard deviation value of 0.56 implied low variation in the responses on this statement.

The findings further revealed that majority of the respondents, 40% and mean value of 3.54, strongly agreed that the corporation had ensured that there was no overstocking to reduce taxes paid to the inventory stored, 11.3% of the respondents also agreed while 28.7% were not sure. However, the results indicated that 17.4% of the study respondents strongly disagreed that the corporation had ensured that there was no overstocking to reduce taxes paid to the inventory stored supported by 2.6% of the respondents who also disagreed. The standard deviation value of 1.47 confirmed low variation in the responses regarding the statement.

The results finally showed that majority of the respondents as shown by 36.5% and mean value of 4.05 strongly agreed that the corporation had ensured that there was no holding onto obsolete products in the stores. On average, the findings of the study showed that majority of the respondents agreed that inventory management practices of the state corporations influenced procurement performance of these institutions as shown by the mean value of 4.15. The standard deviation value of 0.84 also implied low variation in the responses on various statements of this variable. The findings of the study were consistent with the study results of Oballah, Waiganjo, and Wachiuri (2015) that inventory investment and inventory records accuracy have a positive influence on organizational performance while inventory shrinkage have a negative effect on organizational performance.

Table 3: Inventory Management Practices

Statement	SD	D	NS	A	SA	Mean	Std Dev
The corporation has ensured that there is tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials.	0.00%	0.00%	31.30%	31.30%	37.40%	4.06	0.83

We have the correct forecasting methods thus reduction of stock outs in the organization	0.00%	0.00%	0.00%	52.20%	47.80%	4.48	0.50
The organization has ensured there is no obsolete and excessive inventory to reduce operational costs	0.00%	0.00%	4.30%	25.20%	70.40%	4.66	0.56
The organization has ensured that there is no overstocking to reduce taxes paid to the inventory stored	17.40%	2.60%	28.70%	11.30%	40.00%	3.54	1.47
The organization has ensured that there is no holding on to obsolete products in the stores	0.00%	0.00%	31.30%	32.20%	36.50%	4.05	0.83

Average

4.15 0.84

Procurement Planning Practices

The study finally sought to establish the effect of procurement planning practices on procurement performance of state corporations in Kenya. The average responses on various statements regarding the effect of procurement planning practices on procurement performance of state corporations in Kenya as indicated in Table 4 showed that majority of the respondents, 42.6 and mean value 4.18, indicated that the disposal planning used in the corporation was in line with the disposal Act, 33% of the respondents also agreed and 24.3% were not sure. The standard deviation value of 0.8 implied low variation in the responses provided on this statement. The results also indicated that majority of the respondents, 56.5% and mean value 4.51, strongly agreed that the corporation carried out tendering in accordance with the set procedures, 38.3% of the respondents also agreed with the statement while 5.2% of the respondents were not sure whether the corporation carries out tendering in accordance with the set procedures. The standard deviation value of 0.6 implied low variation in the responses provided on this statement.

The results of the study further showed that majority of the respondents as shown by 72.2% and mean value of 4.7 strongly agreed that the procurement plan was prepared early enough to allow for proper

allocation of funds, 25.2% of the respondents also agreed while only 2.6% of the respondents were not sure whether the procurement plan was prepared early enough to allow for proper allocation of funds. On the same note, the standard deviation value of 0.52 implied low variation in the responses on this statement. Majority of the study respondents, 40.9% and mean value of 3.58, strongly agreed that the budget was first approved before any procurement was initiated, 12.2% also agreed with the statement while 27.8% of the study respondents were not sure whether the budget was first approved before any procurement was initiated. On the other hand, 16.5% of the respondents strongly disagreed that the budget was first approved before any procurement was initiated supported by 2.6% who also disagreed.

The results of the study on procurement planning practices finally showed that majority of the study respondents, 72.2% and mean value of 3.99, agreed that the corporation ensures there was a procurement plan to enhance quality planning and avoid reckless use of funds, 14.8% of the respondents strongly agreed while 10.4% were not sure whether there was a procurement plan to enhance quality planning and avoid reckless use of funds. The standard deviation value of 0.6 implied low variation in the responses provided on this statement. On average, the results of the study showed that majority of the respondents, mean value 4.19 agreed

that procurement planning practices influenced procurement performance of the state corporations. The findings concurred with the argument of Metobo,

(2016) that revealed that procurement planning practices affect service delivery in state corporations.

Table 4: Procurement Planning Practices

Statement	SD	D	NS	A	SA	Mean	Std Dev
The disposal planning used in the organization is in line with the disposal Act	0.00%	0.00%	24.30%	33.00%	42.60%	4.18	0.80
The organization carries out tendering in accordance with the set procedures	0.00%	0.00%	5.20%	38.30%	56.50%	4.51	0.60
The procurement plan is prepared early enough to allow for proper allocation of funds	0.00%	0.00%	2.60%	25.20%	72.20%	4.70	0.52
The budget is first approved before any procurement is initiated	16.50%	2.60%	27.80%	12.20%	40.90%	3.58	1.46
The organization ensures there is a procurement plan to enhance quality planning and avoid reckless and over spending of funds	0.00%	2.60%	10.40%	72.20%	14.80%	3.99	0.60
Average						4.19	0.79

Trend Analysis of Procurement Performance of State Corporations

The study sought to establish the trends of the various measurements of procurement performance of the state corporations. The study examined procurement performance of the state corporations over the period 2012-2016 in terms of quality of the goods procured, reduction of the procurement costs and Timely purchases (Stock out Reduction) and the results presented in figures using percentage change for duration covered in the study.

The study sought to establish the trend of the quality of goods procured by the state corporations for the duration covered by the study (2012-2016). The results revealed an unsteady fluctuation in the quality of the goods procured by the state corporations with a percent increase from 9.1% to 11.15% in the year 2016. The results therefore implied that despite there being efforts to improve on the quality of the goods procured by state corporations in Kenya, the change

had not quite been a significant one. This pointed out to the fact that these corporations had had poor supply chain practices resulting to procurement of low quality goods.

The study also sought to establish the trend of the procurement cost reduction of the state corporations for the duration covered by the study (2012-2016). The results revealed a steady fluctuation in the procurement costs reduction of the state corporations with an initial 8.2% change in procurement cost in 2012 increasing to 10.25% in the year 2016.

The study sought to establish the trend of the Timely purchases (Stock out Reduction) of the state corporations for the duration 2012-2016. The results revealed an unsteady fluctuation in the stock out duration from 7.5% in the year 2012 to 9.2% in 2016. The results implied that the duration taken to make purchases by the state corporations had decreased but not to any significant level.

CONCLUSIONS

The study concluded that an improvement in various indicators of outsourcing such as outsourcing of some of the services, outsourcing personnel who have a remarkable focus on core competencies, embracing technical capacity in outsourcing to reduce spending on staff, emphasizing technical capacity to develop business relationships and become competitive, and playing a key benchmarking role to other players in the market through risk transfer will significantly improve the procurement performance of state corporations in Kenya.

Another conclusion made by the study was that an improvement in various distribution management practices such as proper product tracking to reduce warehousing costs, product labeling for high valued inventories, ensuring that there was the use of warehouse management system to improve cost reduction, adopting FIFO system to enhance timely deliveries and improve customer satisfaction and using automated tools and techniques for order processing to enhance timely deliveries in the corporation will significantly improve the procurement performance of state corporations in Kenya.

The study also concluded that a positive change in various indicators of inventory management practices such as ensuring that there was tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials, having correct forecasting methods thus reduction of stock outs, ensuring that there is no obsolete and excessive inventory to reduce operational costs, ensuring that there is no overstocking to reduce taxes paid to the inventory stored and making efforts to ensure that there is no holding onto obsolete products in the stores will significantly improve the procurement performance of state corporations in Kenya.

The study finally concluded that an improvement in various indicators of procurement planning practices such as having a disposal planning used in the corporation that was in line with the existing disposal Act, carrying out tendering in accordance with the set procedures, preparing a procurement plan early enough to allow for proper allocation of funds, having the procurement budget first approved before any procurement is initiated and ensuring that there is a procurement plan to enhance quality planning and avoid misuse of funds will significantly improve the procurement performance of state corporations in Kenya.

RECOMMENDATIONS

The sub section presented recommendations of the study based on the findings. After inferential and descriptive results, it was established that there is a positive and significant association between the independent variables of the study (outsourcing practices, distribution management practices, inventory management practices and procurement planning practices) and procurement performance of the state corporations in Kenya. Based on this, recommendations have been made to various beneficiaries of the study based on the study variables.

The study recommended that in order for the state corporations in Kenya to improve their procurement performance, there was need to focus on outsourcing practices such as outsourcing of some of the services, outsourcing personnel who had a remarkable focus on core competencies, embracing technical capacity in outsourcing to reduce spending on staff, emphasizing technical capacity to develop business relationships and become competitive, and playing a key benchmarking role to other players in the market through risk transfer.

The study also recommended that for the purpose of improving procurement performance, state corporations in Kenya should strive to adopt

distribution management practices such as proper product tracking to reduce warehousing costs, product labeling for high valued inventories, ensuring that there is the use of warehouse management system to improve cost reduction, adopting FIFO system to enhance timely deliveries and improve customer satisfaction and using automated tools and techniques for order processing to enhance timely deliveries in the corporation.

The study also recommended that state corporations in Kenya should pay close attention to inventory management practices such as ensuring that there is tracking of inventory to enhance coordination of materials accessibility, controlling, utilization and procuring of materials, having correct forecasting methods thus reduction of stock outs, ensuring that there is no obsolete and excessive inventory to reduce operational costs, ensuring that there is no overstocking to reduce taxes paid to the inventory stored and making efforts to ensure that there is no holding onto obsolete products in the stores so as to improve on procurement performance.

The study finally recommended that in order for state corporations to improve their procurement performance, there was need to focus on procurement planning practices such as having a disposal planning used in the corporation that was in line with the existing disposal Act, carrying out tendering in accordance with the set procedures, preparing a procurement plan early enough to allow for proper allocation of funds, having the procurement budget first approved before any

procurement was initiated and ensuring that there was a procurement plan to enhance quality planning and avoid misuse of funds.

Areas for Further Study

This research study was conducted in government corporations in Kenya and hence the findings cannot be generalized to other institutions. This study therefore suggested further studies on the influence of supply chain management practices on procurement performance of Parastatals in Kenya. The study also found that outsourcing practices, distribution management practices, inventory management practices and procurement planning practices account for up to 87.6% of the variation in on procurement performance of the state corporations in Kenya. This means that the remaining 12.4% of the variation in on procurement performance of the state corporations in Kenya was accounted for by other factors not covered in the model presented in this study. The study therefore suggested further studies on the other factors affecting procurement performance of state corporations and other parastatals. On the same note, the studies should also examine the moderating effect of such variables as government policies. With continuation of research on supply chain management practices, There is need of researching on the conventional accepted supply chain management practices for harmonization and improvement on the overall procurement performance of the public and private sectors.

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