PROCUREMENT MANAGEMENT PRACTICES AND PROCUREMENT PERFORMANCE OF GOVERNMENT MINISTRIES IN KENYA

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ABSTRACT: Purpose: The study aimed at establishing procurement management practices and performance at Government ministries in Kenya. It was specifically aimed at establishing how customer relationship management, inventory management; information sharing, information communication technology, supplier relationship management and contract management practices affect performance of Government ministers in Kenya.

Design/Research method: The study used case study research design in its methodology. The study was guided by Resource based view Theory and strategic choice theory. Data was collected using structured questionnaires. Procurement managers and the equivalent were the targeted population from the 22 staff in various government ministries in Kenya.

Finding: The study findings indicated that procurement management practices have a positive impact on performance in government ministries in Kenya.

Limitation: The major limitation of the study is that it was based on government ministries only.

Implication: Other future academicians should research on procurement management practices in other firms rather than government ministries in Kenya.

Keywords: Supply Chain Management, Procurement Management Practices, Supply Chain Performance, Government Ministries.

1. INTRODUCTION

Over the years, there has been an alarming increase in competitiveness in the business environment. This requires various players and stakeholders to be more efficient and continuously innovate new procedures to keep ahead of competitors. There is need for customer value delivery through the product or service they provide in aspects such as lower prices, quality and better service as an essential requirement in the global market place. In order to take advantage of global opportunities, to acquire state of the art logistics capabilities, to significantly improve customer service and to enable focusing on core competencies (Rangarajan et al., 2018).

The linkage of procurement to organizational performance in particular, makes the embracing of best practices important to present organizational success. Procurement is found to be practiced in many industries around the world (Hussein and Shale, 2014). Kabega et al. (2016) reiterated that various public institutions both in developing and developed countries have instituted procurement reforms which involve laws and regulations but the main challenge has been inadequate regulatory compliance. Public institutions are found to be big spenders and that they deal with massive budgets (Roodhooft et al., 2003). In addition, Willar and Trigunarsyah (2010) restates that public procurement was estimated to represent 18.42% of the world Gross Domestic Product (GDP). Public procurement is recognized as essential in service delivery and it accounted for a high proportion of total expenditure (Basheka and Bisangabasaija, 2010).

The existence of integration of procurement practices in various organizational operations and support functions, harmonizing production with new orders, purchasing with demand, scheduling and shipping with customer requirements, has contributed significantly to the performance of many public organizations (Baily M. N. and Chakrabarti, 1988). Application of appropriate procurement practices...
strategically, has the potential impact to the performance of organizations and national economies in general (Keith et al., 2016). However, disruptions in procurement practices at any level devastate organizational performance. Poorly coordinated procurement practices do long-lasting damage to organizations’ stock prices and profitability and need to be more thoroughly addressed by supply chain continuity planners (Thai, 2004).

The Kenya National Government is authorized to act based on the legal constitution in ensuring the protection of the safety and wellbeing of the citizens. The Government structure is split into two namely administrative and economic structures which are coordinated jointly (Mutui, 2014). The Government is run by ministries of which there are 21 ministries which are headed by the cabinet secretaries. The ministries mandate is formulating financial and economic policies, developing and maintaining both stable fiscal and monetary policies which promote socioeconomic advancement in all the Government sub sectors (Mutui, 2014).

1.1. Research Problem

Procurement is deemed to be part of principles of management of plans that focus on effective achievement of performance efficient in public institutions as well as growth of the nation. In practice, when procurement process is well planned and implemented, it can act as an economic instrument for guaranteeing national development (Keith et al., 2016). Many of the third world countries are challenged by dynamic procurement revolution and this gives them difficulty on the functioning of procurement and performance together with the inside and outside dealings (Wambui, 2013). The procurement practices are fragile and predisposed to regular discontinuities (Jeppesen and Molin, 2003). Jibrin et al. (2014) noted that the major problem in the current procurement industry is not on the limited regulation models but because of non-compliance and pitiable execution process.

A number of studies have been carried out on the effects of outsourcing on performance both globally and locally. Globally, Quesada et al. (2010), carried out a study on the Impact of e-procurement on procurement practices and performance. The aim of the study was to ascertain the impact of adoption of e-procurement on performance and procurement practices. The study adopted descriptive statics whereby data was collected by use of questionnaires. Maleeha and Tayyab (2016) carried out a study on the impact of knowledge management capability on innovation capability. The aim of the study was to ascertain the impact of knowledge management capability on innovation capability and challenges faced in the implementation. The research was carried out in two stages in the first stage archival analysis was conducted of Government documents, reports including reports by international organizations, policy documents and literature. During the second stage case studies were selected based on archival analysis. As a result multiple issues have been identified which affects the choice of procurement such as the need for efficiency and finances, client objectives, timely policy decisions, clarity of client’s needs, delays in bidding and response, delays in approvals, proposal and bid evaluation procedures, need for relaxation of rules and project characteristics. The major barriers and constraints to implementation of procurement were regulatory and legal, risks and contract management, principles of procurement, political, culture, inter and intra organizational issues, conditions of the country, lack of understanding, land acquisition, project revenue and finance issues. Paul and Brad (2015), studied on international procurement practices. The aim of the study was to ascertain the various international procurement practices. The study findings established that various firms have experienced challenges in the adoption of procurement practices like trade barriers, expenses among others. The study ascertained that adoption of procurement practices improves performance. Wee et al. (2011) carried out a study on procurement issues in Malaysia. The study was aimed at establishing the procurement management issues affecting the Malaysian firms. The study findings indicated that corruption, by the procurement officers was the major cause of poor performance of the procurement function in Malaysia. The study however suffered from methodological weaknesses based on the fact that it was solely based on Malaysian firms and hence the results cannot be applied in Kenyan context.

Locally, Leiyan (2016), studied on procurement practices and organizational performance: case study of the university of Nairobi. The aim of the study ways to ascertain the impact of adoption of procurement management practices on performance at the University of Nairobi. The study adopted use of structured questionnaires which were used in the data collection from the respondents. The study was however the study was solely focused on the University of Nairobi and hence the results cannot be applied in the ministry of lands. (Sengbeh, 2015) carried out a study on the impact of procurement ethical practices on supply chain performance in energy sector. The purpose of the study was to ascertain the various ethical procurement practices that have been adopted by the energy sector, their impact on supply
chain performance. The study adopted use of descriptive statics in its research methodology. The study findings indicated that there exists a positive relationship between adoption of procurement ethical practices and performance in the energy sector. However the study was focused on the impact of procurement ethical practices and not procurement practices, besides the study was solely focused on the energy sector. Nzuve, 2013 carried out a study on adoption of e-procurement practices among private hospitals in Nairobi. The aim of the study was to establish the impact e-procurement has on performance in private hospitals in Nairobi, the extent of adoption of e-procurement practices in private hospitals in Nairobi Kenya. The study made use of structured questionnaires in data collection from the respondents who were procurement officers. The study established that private hospitals in Nairobi to a great extent had adopted various procurement management practices. The study indicated that there exists a positive relationship between adoption of e-procurement practices and performance in private hospitals in Nairobi. However the study was solely focused on the private hospitals in Nairobi. Besides the results based on the fact that they were in the health sector may not be applicable in the ministry of Health. In addition the study was based on e-procurement management practices and failed to look at all the procurement management practices as a whole. (Makali, 2015) carried out a research on the impact of e-procurement on performance of supermarkets in Nairobi.

1.2. Research Focus

The purpose of the study was to ascertain the impact that adoption of e-procurement has on performance of supermarkets in Nairobi and the challenges of its adoption. The study made use of questionnaires in data collection. The findings established that there exists a positive relationship between adoption of e-procurement management practices and performance in supermarkets. The study however failed to tackle on procurement management practices as a whole and solely focused on e-procurement management practices and performance in supermarkets. From the above studies it is evident that there exists a gap in knowledge in that no study has been done on the procurement management practices and performance in Government ministries in Kenya. This study therefore seeks to answer the following research questions: what is the extent of adoption of procurement management practices and performance in Government ministries in Kenya? What is the effect of procurement practices on supply chain performance in supermarkets in Nairobi? What challenges face procurement practices adoption in Government ministries in Kenya?

The specific objectives of the study were:
1. To establish the extent to which procurement management practices adopted at the Government ministries in Kenya; and
2. To determine the relationship between procurement management practices and procurement performance at the Government ministries in Kenya.

2. LITERATURE REVIEW

The section looks at the information provided form various topics and publications in respect to the research problem. It weighs what other authors and scholars determined about procurement management practices and also looks at the theories associated with this study. Various theories that make up a basis of this research is what is referred to as the theoretical framework. It is made of not only principles, theories but also the various findings that were obtained .This study is guided by: resource dependency theory and strategic choice theory. Strategic Choice Theory: It expounds on the relationship in-between a firm’s actions and events (De-Rond and Thietart, 2007).This theory expounds on the relationships between management choices and performance and the overall interaction with the surroundings. According to this theory it looks at firms to as being affected by surroundings and choices made by top management. The decision to make or buy should balance on dependence against value to meet the goals of the organization .In regard to outsourcing decision, it advices to minimization of dependences. The decision whether to collaborate with suppliers depends on the value attached to the collaboration. This theory is related to the topic of study based on the fact that procurement managers need to make long term decisions in the procurement process that will result in lower costs. They need to come up with procurement management manuals that will be used in guiding various processes in the organization. Resource-Dependence Theory: Developed in the 1978 by Pfeffer and Salancik, this theory states that firms are affected and constrained by environments and based on this fact, firms act in order to control dependencies on resources by setting various forms of inter-organizational arrangements. This theory clearly brings out how the availability and the amount of resources firms have effect on the behavior of the firm. The sourcing of external resources
is an important aspect for not only the strategic management but also the tactical management of any firm, (Lonsdale et al., 2015).

2.1. Procurement Management Practices

Procurement is the acquisition of goods and/or services at the best possible total cost of ownership, in the right quality and quantity, at the right time, in the right place and from the right source for the direct benefit or use of corporations, individuals, or even Governments, generally via a contract, or it can be the same way selection for human resource (Caldwell et al., 2007). Procurement practices can be described as activities which involve procurement planning, procurement controls, procurement monitoring and training workforce and this formed the basis of this study with addition of inventory management (Makabira and Waiganjo, 2014). An organization’s procurement functions are guided by practices and activities that are entirely different hence divided into strategic and operational processes. Buying of goods and services through various channels necessitates organizations procurement helps to respond quickly to highly competitive new market entrants. Public or Government organization sees procurement as a good opportunity to enhance process of procurement within the public sector bodies (Dong et al., 2009; Kierkegaard, 2006; Makabira and Waiganjo, 2014).

Best procurement management practices include; Ensuring compliance with procurement laws and regulations, Cooperative supplier relations, Inventory Management, Information Sharing, Ensure adequate expertise in SCM, Effective communication, and customer relations, Maintaining confidentiality, Continuously improving performance and innovation, Adopting Information technology, Using standard documents in the procurement process, Contract Management, Building a socially responsible and sustainable procurement practice,

Supplier Relationship Management entails the selection of vendors and the integration of businesses to obtain proper complementary skills in order to solve important concerns. According to Fawcett et al. (2009), strategic sourcing principles act as the indicator to an appropriate relationship. Strategic sourcing consists of strategic outsourcing and supplier capability analysis. Executives and many business entrepreneurs are beginning to realize that successful strategic supplier partnerships result in benefits such higher returns on investment, as access to new technology and knowledge, and better market penetration than those of competitors who do not have such alliances. Adversarial relationship is one of the aspects that SRM tries to overcome. Information sharing and communication provides better outcomes for both parties. According to Bailey et al. (2005) mutual buyer and supplier relationships provide gains with the aim of acquiring beneficial outcomes in various aspects.

Information sharing refers to communication of non-public information along the supply chain. Value of information sharing along the supply chain has been researched by various studies. Simulation approaches can be used to quantify the benefits of exchange information. Sharing of promotional information between manufacturers and retailers can increase trust levels as well as increase revenue. Hamister and Suresh (2008) assert that when demand is auto correlated, the value of information sharing is particularly high. Further, auto correlated demand is connected to the seasonal product, and it has practical significance at the beginning of a selling season. Sharing information upstream positions the manufacturer better to support the retailer while avoiding costs related to stock. The nature of the business relationship is related to the variety of information exchanged.

Adopting information technology refers to the application of computers in the business enterprises. For modern businesses to stay competitive in a rapidly changing business environment, efficient and effective information technology, products and services are critical. Understanding of the technology, legal frameworks, and commercial environment is facilitated by information sharing. Despite the fact that technology has been essential to procurement for decades, its importance continues to grow at an astounding rate. Modern technology can streamline processes, drive efficiencies, and enable visibility; this enables organizations to scale and makes tasks more manageable. It also ensures quality service, fewer costly errors, faster decisions, and minimal costs associated with procurement. Arostegui et al. (2015) maintain that firms with information technology competence and quality management) delivers higher returns more mutual understanding, and fewer technical, organizational difficulties than non-adopters of these systems. It allows for the increased transparency in operations and improved monitoring of the procurement process.

2.2. Procurement Performance

Procurement performance refers to how well procurement objectives are attained (Baily P., 1998). The main procurement performance indicator is the extent to which the procurement function enables the
organization to get best value for money spent on purchases and supplies (Musau, 2015). While traditionally, costs were the major measure of procurement performance, measuring procurement performance currently requires paying attention to more variables (Public Procurement Oversight Authority (PPOA), 2009). Procurement performance measurement, in modern organizations, involves going beyond costs to consider quality, inventory, supplier relations, risk and customer satisfaction (Shalle et al., 2014). Value for money in the procurement procedures is determined by cost of procurement process, price of commodities, timeliness of procurement and quality of goods or services procured (Baily P., 1998). While cost is an important measure of procurement efficiency, least cost without delivering quality goods renders the procurement process ineffective (Public Procurement Oversight Authority (PPOA), 2009).

According to Shalle et al. (2014) procurement performance can be measured by focusing on “cost, quality, delivery, flexibility, and technology”. This implies that procurement performance is dependent on how relationships with suppliers are managed to ensure availability of required quality and quantity of supplies in an organization at the right cost, at the right time (Shalle et al., 2014).

2.3. Procurement Management Practices and Supply Chain Performance

A good procurement system is vital to an effective company's supply chain system. The objective to the performance of the system in meeting its intended objectives in both the public and the private sector is characterized by adequate management of the procurement function. Best procurement practices improve efficiency and effectiveness of an organization which translates to an improvement of its overall performance. Overall procurement practices such as supplier relationship management, ethical procurement, information sharing, adoption of technology and adopting green supply chain management ensure that organizational performance is enhanced by supporting procurement functions in firms.

Turban et al. (2006) indicate that firm’s procurement function is subdivided into operational processes, and strategic processes and considering priorities and activities in these two areas are entirely different most roles are assigned to strategic procurement department. Centralization and decentralization of procurement procedures are enabled by e-procurement. Also, e-procurement helps to minimize administrative hours, stimulate the flow of critical information between the purchaser and supplier, stabilize purchasing practices, increase response rate and improves the competitive advantage.

In their study, Hoque and James (2000), stated that organizational performance could be evaluated by the customer satisfaction, average return, sales revenue, utilization of space, and quality of final product. Chong and Ooi (2008) maintain that reduction of inventories, better customer service, and diminishing costs are because of a good organized and executed procurement plan. Green procurement practices will ensure high-quality products, which are environmental friendly hence considering customer satisfaction. Ethical procurement enhances accountability, consistency and competitive supply, all which influence the indicators of procurement performance in a positive way.

3. RESEARCH METHODS

3.1. General Background of Research

This section outlines the research design and the methodology employed in this study.

3.1.1. Research Design

A case study design approach was adopted for this research so as to effectively realize the objectives of the study. A case study often involves the collection of data through multiple sources such as verbal reports, personal interview and observation as primary data sources (Magutu et al., 2015; Magutu et al., 2016; Mose et al., 2013). Data was collected from the Government ministries which are 21 in number. A case study was recommended because it is holistic in nature.

3.1.2. Population of the study

The entity under investigation was the Government ministries in Kenya. Therefore, the target population of this research was the 21 ministries. The employees targeted in this department included: low level, middle level and top level managements. The research employed use of a census based on the fact that the population is relatively small.
3.1.3. Data Collection
The study used primary data to meet the objective. Questionnaires were used to collect primary data.

3.1.4. Data Analysis
Descriptive statistics and regression analysis was used to analyze data. Organizational performance was the dependent variable in the study while supplier relationship management, information sharing, and adoption of information technology and contract management were the independent variables.

4. RESULTS AND DISCUSSIONS

4.1. Introduction
The section is made up of data analysis, findings and interpretation. It entails the findings on the study sought on procurement management practices and SC performance in Government ministries in Kenya. The study target population was the procurement managers and their equivalent in the procurement departments of the various Government ministries. The response rate of 50% is considered adequate, 60% good and above 70% rated very good (Mugenda and Mugenda, 2003). The response rate for this study, was 100% where out of 21 questionnaires that were distributed, the 21 were dully filled. Thus this was considered efficient and will give out substantial information that can be used in generalization of the various aspects of the study being sought.

4.2. Biographic Information
To carry out this study effectively there was need for the study intended to have knowledge of the basic background information of the respondents working in Government ministries in Kenya. Background checks were carried out to establish the relationship between the information gathered on their experience, education level and the knowledge sought. Under the background information the information sought was on the experience in terms of years the respondents have been working at the various ministries, their age, and gender and education level.

4.2.1. Gender
The respondents were required to indicate their gender either as male or female. The findings indicated that that 52% of the respondents were male while 48% were female. This indicated that there is equal distribution of staff in terms of gender in Government ministries. The findings of the study are as shown in the table below:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>48</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Authors, 2018

4.2.2. Education
The respondents were asked to indicate their education background. The study findings indicated that 29% of the respondents had college level education, 52% had degree level education while 14% of the respondents has a masters level education and 5% had PHD education. This was an indication that the respondents had adequate education background and they had an in-depth understanding of the data sought on procurement management practices and performance in their relevant ministries.

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>College</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>Masters</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>PHD</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Authors, 2018
4.2.3. Experience

The respondents were asked to indicate the number of years they had worked in the firm. The responses indicated that 5% of the respondents had worked for less than 5 years, 14% had working experience of 6-10 years, 29% had over 10-15 years and 52% had worked over 15 years. These findings indicated that the respondents had adequate working experience in the data sought and they are in a position to provide data that will facilitate meeting of the study objectives. It indicates that most procurement managers in Government ministries have worked for over 5 years in their positions and hence have an in-depth understanding of the procurement management practices adopted in the Government ministries.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 5 years</td>
<td>1</td>
<td>11.4</td>
</tr>
<tr>
<td>6-10 years</td>
<td>3</td>
<td>74.3</td>
</tr>
<tr>
<td>over 10 years</td>
<td>6</td>
<td>14.3</td>
</tr>
<tr>
<td>Over 15 years</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Authors, 2018

4.3. Adoption of Procurement Management Practices

The first objective of the study was to ascertain the extent of adoption of procurement management practices in adopted by Government ministries in Kenya. To ascertain this, the respondents were required to indicate on a scale of 1-5 where 1-no extent, 2-small extent, 3-moderate extent, 4-large extent and 5-very large extent, to what extent various procurement management practices had been adopted in Government ministries. Descriptive statics was carried out of all the data collected on the various procurement management practices. The summary of descriptive statics is as indicated in the table below:

<table>
<thead>
<tr>
<th>Logistics activities</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information communication technology</td>
<td>4.1571</td>
<td>0.57321</td>
</tr>
<tr>
<td>Supplier Relationship management</td>
<td>4.1095</td>
<td>0.51177</td>
</tr>
<tr>
<td>Contract management</td>
<td>3.8571</td>
<td>0.65465</td>
</tr>
<tr>
<td>Information sharing</td>
<td>3.7619</td>
<td>0.43644</td>
</tr>
<tr>
<td>Inventory management practices</td>
<td>3.6667</td>
<td>0.57735</td>
</tr>
</tbody>
</table>

Source: Authors, 2018

The study findings indicated that SRM as a procurement management practice had been adopted to a large extent as indicated by a mean value of 4.1. Inventory management as a procurement management practice activity indicated it had been adopted to a moderate extent by a mean value of 3.7, information sharing as a procurement management practice had been adopted in Government ministries in Kenya to as moderate extent by a mean value of 3.7, ICT had been adopted to a large extent by mean value of 4.1 and Contract management had been adopted in Government ministries to moderate extent as indicated by a mean value of 3.9. This is an indication that all Government ministries have adopted procurement management practices to a large extent. This indicates that they are able to run their procurement function effectively and are able to meet customer requirements and needs on time.

4.4. Relationship between Procurement Management Practices and Supply Chain Performance

To ascertain the relationship between procurement management practices and supply chain performance, in Government ministries in Kenya, the study adopted use of regression analysis. The independent variables were: SRM, ICT, Information sharing inventory management and contract management while the independent variables was: supply chain performance. The table 5 below summarizes the regression analysis at 5% confidence level indicates that procurement management practices has a positive combined effect on supply chain performance in Government ministries in Kenya as indicated by all positive regression coefficients for all independent variables.
The results show that there exists a positive relationship between SRM and supply chain performance. This indicates that an increase in the level of adoption of SRM by one unit, results to related increase in the level of supply chain performance by 0.218. Inventory management and supply chain performance positively related as indicated by a positive value of 0.233. This indicates that an increase in the level of adoption of inventory management by one unit, results to related increase in the level of supply chain performance by 0.233. Information sharing and supply chain performance positively related as indicated by a positive value of 0.154. This indicates that an increase in the level of adoption of information sharing by one unit, results to related increase in the level of supply chain performance by 0.154. ICT and supply chain performance positively related as indicated by 0.359. This indicates that an increase in the level of adoption of ICT by one unit, results to related increase in the level of supply chain performance by 0.359. Contract management and supply chain performance positively related as indicated by 0.188. This indicates that an increase in the level of adoption of contract management by one unit, results to related increase in the level of supply chain performance by 0.188.

\[
Y = 3.122 + 0.218 X_1 + 0.154 X_2 + 0.233 X_3 + 0.359 X_4 + 0.188 X_5 + \epsilon
\]

- \(Y\) = supply chain performance,
- \(X_1\) = Supplier relationship management
- \(X_2\) = information sharing
- \(X_3\) = Inventory management
- \(X_4\) = ICT
- \(X_5\) = Contract management
- \(\epsilon\) = error term

\(\beta_{ij}\) = Regression Coefficients

The relationship between the independent and dependent variables of the study are summarized in the table below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>6.207</td>
<td>1.159</td>
<td></td>
<td>5.356</td>
</tr>
<tr>
<td>Supplier relationship management</td>
<td>.218</td>
<td>.113</td>
<td>.353</td>
<td>1.936</td>
</tr>
<tr>
<td>Information sharing</td>
<td>.154</td>
<td>.155</td>
<td>.099</td>
<td>.350</td>
</tr>
<tr>
<td>Information communication technology</td>
<td>.359</td>
<td>.213</td>
<td>.259</td>
<td>.884</td>
</tr>
<tr>
<td>Inventory management</td>
<td>.233</td>
<td>.125</td>
<td>.422</td>
<td>1.868</td>
</tr>
<tr>
<td>Contract management</td>
<td>.188</td>
<td>.119</td>
<td>.743</td>
<td>3.011</td>
</tr>
</tbody>
</table>

- a. Dependent Variable: Supply chain performance
- b. Predictors: Supplier relationship management, Information communication technology, information sharing, Inventory management, contract management

**Source:** Authors, 2018

The findings indicated a correlation coefficient value of 0.746 and R value of 56%. From this we can conclude that procurement management practices is a representative of 56% of variations in performance in Government ministries in Kenya, from these as per the fitness test, we can conclude that this is a fairly good model since the value is above 50%. Besides the significance level is at 0.00 which is less than the critical value of 0.05 hence this model was statically significant at 95% confidence level. Hence we can conclude that procurement management practices have positive impact on supply chain performance in Government ministries in Kenya.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.746</td>
<td>.557</td>
<td>.409</td>
<td>.24300</td>
</tr>
</tbody>
</table>

- a. Dependent Variable: Supply chain performance
- b. Predictors: Supplier relationship management, Information communication technology, information sharing, Inventory management, contract management

**Source:** Authors, 2018

The findings indicated a correlation coefficient value of 0.746 and R value of 56%. From this we can conclude that procurement management practices is a representative of 56% of variations in performance in Government ministries in Kenya, from these as per the fitness test, we can conclude that this is a fairly good model since the value is above 50%. Besides the significance level is at 0.00 which is less than the critical value of 0.05 hence this model was statically significant at 95% confidence level. Hence we can conclude that procurement management practices have positive impact on supply chain performance in Government ministries in Kenya.
Table 7. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>1.114</td>
<td>5</td>
<td>.223</td>
<td>3.774</td>
<td>.021b</td>
</tr>
<tr>
<td>Residual</td>
<td>.886</td>
<td>15</td>
<td>.059</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.000</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Supply chain performance  
b. Predictors: Supplier relationship management, Information communication technology, information sharing, Inventory management, contract management  
Source: Authors, 2018

From the findings in the anova table the results indicate a significance level of 0.021 which is an indication that procurement management practices which include: transportation, Warehousing, inventory management, distribution management are significant contributors to supply chain performance since the p-value of 0.021 is lower than the critical value of 0.005 at 95% confidence level.

4.5. Challenges in Adoption of Procurement management practices in Humanitarian

The third objective of the study was to ascertain the challenges of adoption of procurement management practices on supply chain performance in Government ministries in Kenya. The study findings indicated that to a moderate extent, they faced a challenge of Lack of adequate funding which was indicated by a mean value of 3.00, Inability of the organization to handle change with a mean value of 4.5, The procurement management practices are not understood by the employees a mean value of 3.0, the challenge of The organization does not have a sustainable procurement policy as indicated by a mean value of 2.8, Lack of information sharing as indicated by a mean value of 2.9, all as summarized in the table below: This is an indication that Government ministries face various challenges in their quest to adoption of procurement management practices.

Table 8. Descriptive Statistics

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of adequate funding</td>
<td>3.000</td>
<td>54772</td>
</tr>
<tr>
<td>Inability of the organization to handle change</td>
<td>4.571</td>
<td>6.53889</td>
</tr>
<tr>
<td>The procurement management practices are not understood by the employees</td>
<td>3.952</td>
<td>6.2488</td>
</tr>
<tr>
<td>The organization does not have a sustainable procurement policy</td>
<td>2.9048</td>
<td>53896</td>
</tr>
<tr>
<td>Lack of information sharing</td>
<td>3.857</td>
<td>57321</td>
</tr>
</tbody>
</table>

Source: Authors, 2018

4.6. Discussion

This study’s main purpose was to establish the extent of adoption of procurement management practices in Government ministries in Kenya and its effect on supply chain performance. The findings of the study as indicated above ascertained that to a large extent, Government ministries have adopted procurement management practices. This was indicated as per the results whereby descriptive analysis carried out on each and every variable, indicated that all the five procurement management practices variables had a positive mean value an indication that they had been implemented in the Government ministries in Kenya.

From the findings, SRM indicated a mean value of 4.1, inventory management indicated a mean value of 3.7, ICT indicated a mean value of 4.2, information sharing indicated a mean of 3.6 and contract management indicated a mean value of 3.8. From these findings it was an indication that the procurement management practices had been implemented in the Government ministries in Kenya. Due to the mean values greater than 3.0 on a scale of 1-5 of the mean results that was attained from the descriptive statistics.

The second objective of the study was to establish the effect of procurement management practices on performance of Government ministries in Kenya. To get this the study used regression analysis. From the findings it was ascertained that procurement management practices have a positive impact on performance whereby: SRM had a positive impact on supply chain performance: 0.218, inventory management: 0.233, ICT: 0.359, information sharing 0.154 and contract management 0.188, hence all the procurement management practices activities in the study affect supply chain performance in the Government ministries in Kenya. Furthermore, the regression analysis established that 56% of the supply
chain performance of Government ministries in Kenya is affected by procurement management practices adoption. This indicated that the procurement management practices had great impact on the supply chain performance of Government ministries in Kenya. The anova analysis indicated a 0.021 value as the significance level an indication that the model used was significant since the value is less than 0.005 at 95% confidence level an indication that procurement management practices has impact on performance of Government ministries in Kenya.

This study is in line with a study carried out by Haji and Jianguo (2014) in Turkey firms, whereby he ascertained that implementation of procurement management practices had a positive impact on performance. Besides this study is in line with a study by Leiyan (2016) who studied on the procurement management practices on the university of Nairobi in Kenya. The findings indicated that implementation of procurement management practices had a positive impact on performance of the university of Nairobi. Njoroge and Gathungu (2013) ascertained that adoption of procurement management practices has positive impact on performance.

5. CONCLUSION

Government ministries are key to the operations of any Government. They form a basis of all operations that a Government offers to its citizens. Government ministries facilitate distribution of funds and resources by the Government to the citizens. Procurement is key to the operations of Government ministries as they are involved in the distribution of all types of resources to the economy. Effectiveness in operations of a firm is highly attributed to adoption of procurement management practices in their supply chain management processes. In conclusion, the study aimed at establishing the extent to which procurement management practices had been implemented in the Government ministries in Kenya, the impact of procurement management practices on performance of Government ministries in Kenya.

The findings indicated that to a large extent, all the procurement management practices had been implemented in the Government ministries in Kenya, as per the indicated by positive mean values above 4.0 an indication that all the activities had been implemented to a large extent. The findings from the regression analysis indicated that procurement management practices to a moderate extent have effect on performance in Government ministries in Kenya. The results of the study ascertained a positive correlation between the various procurement management practices and SC performance of Government ministries in Kenya. In addition to that the p-value indicated a 0.021 value which was an indication that the procurement management practices had been implemented Government ministries in Kenya, are statically significant based on the fact that the value is less than the 0.05 level at 95% confidence level.

6. RECOMMENDATIONS TO POLICY AND PRACTICE

From this study findings, it was established that most of Government ministries in Kenya, had implemented procurement management practices. However a few have not implemented it, there is need for the management to incorporate the procurement management practices into their system in order to improve their performance and competitiveness. There is need for adoption of procurement management practices in both small and large scale and firms in Kenya to improve their focus on core activities.

The aim of this study was to establish the extent of implementation of procurement management practices on SC performance in Government ministries in Kenya. Besides the study was aimed at establishing the relationship between procurement management practices and performance of Government ministries in Kenya and did not focus on other sectors or firms. The study period was a little bit narrow for a study of this nature. The researcher experienced great challenges in collecting data from the Government ministries in Kenya, since most of the respondents were operating under strict rules of the management not to issue out information to outsiders on any issue or operations of the ministry. The study was narrowly focused on the Government ministries in Kenya, and hence the results could not be generalized for other sectors. Besides some of the respondents did not accept the questionnaires thus making it a challenge to effectively carry out the study.

The aim of this study was to establish the extent to which supply chain management practices had been implemented in Government ministries. Despite the fact the objectives of the study were attained, the study recommends that this was a cross sectional study of Government ministries and no other sectors. A further research needs to be done on other firms other than Government ministries, further studies need to be carried out on non-Governmental firms, private firms, parastatals, to ascertain the degree to which procurement management practices affect performance.
REFERENCES


