INFLUENCE OF SUPPLIER MANAGEMENT ON PROCUREMENT PERFORMANCE IN SELECTED COUNTY GOVERNMENTS IN KENYA

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ABSTRACT

This study sought to establish the influence of supplier management on procurement performance in devolved governments in Kenya. The study was guided by the following specific objectives: to assess the influence of supplier selection strategies on procurement performance in devolved governments, to determine whether supplier contracting on procurement performance in devolved governments, to establish whether supplier relationship management influence procurement performance in devolved governments and to explore whether supplier development affect procurement performance in devolved governments. The study is built on the Auction Theory, Compliance Theory, Scientific management Theory and Agency Theory. Descriptive research design was used for the study. The target population for this study was procurement personnel from the six counties (Kisii, Migori, Vihiga, Kericho, Kwale and Isiolo). The conceptual framework comprised of the independent variables or exploratory variables which are the presumed cause of changes in the dependent variable and the dependent variable also called the criterion or predictor variable which the researcher wishes to explain. The conceptual framework was developed which depicts the relationship between variables in the study and shows the relationship graphically or diagrammatically. Here, diagrammatically it illustrates the interaction between the independent variables and the dependent variable in the study. Specific literature relating on each of the variables follows thereafter. There were 90 employees working in procurement department as they were arguably in a better position to answer the question in order to address the research problem. The respondents included procurement managers, procurement officers, procurement assistants and
clerical officers in the department. Primary data was collected using questionnaires by use of the census survey technique. The quantitative data was entered into SPSS 22 for analysis. Both quantitative and qualitative data analysis techniques were used. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed by the use of the content analysis. Descriptive statistics such as percentages, means and standard deviations were used to analyze the data while inferential statistics such as correlation and regression analysis was used to test on the relationship between the variables of the study where multiple regression model was used at 5% level of significance Tables, graphs and charts were used to present the findings of the study. The study findings show the regression model of Procurement Performance coefficient of determination R Square was 0.632 and R was 0.795. The coefficient of determination R Square indicated that 63.20% of the variation on Procurement Performance could be explained by the set of independent variables namely; Supplier Selection Strategies, Supplier Contracting, Supplier Development, Supplier Relationship Management. The remaining 36.80% of variation in Procurement Performance can be explained by other variables not included in this model. The study contributes to the existing literature in the field of procurement by elaborating exiting theories, models and empirical studies on role of supplier management on procurement performance. The current study should therefore be expanded further in future in order to determine the effect of legal framework, supplier payment, supplier training on procurement performance in county governments. Existing literature indicates that as a future avenue of research, there is need to undertake similar research in other counties in Kenya and other countries in order to establish whether the explored factors of supplier management can be generalized to affect procurement performance in county governments.

**KEY TERMS;** Public Procurement Management, Procurement Performance, Supplier Selection, Supplier Development, Supplier Payment
Introduction

Procurement encompasses the whole process of acquiring property and/or services. It begins when an agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery of and payment for the property and/or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract. Procurement also extends to the ultimate disposal of property at the end of its useful life (Waters, 2004). Public procurement systems are central to the effectiveness of development expenditure. Budgets get translated into services largely through the governments’ purchases of goods, services and works. It is estimated that 18.42% of the world’s Gross Domestic Product (GDP) is spent through public procurement (Mahmood, 2010).

Performance of supply chain is based on the principles of efficiency and effectiveness (Fairgrieve & Lichère, 2011). Meeting the efficiency and effectiveness in procurement systems has become a critical factor to consider among the procurement stakeholders. Lember, Kattel and Kalvet (2014) define efficiency as the ability to avoid wastage of resources in terms of materials, energy, money and time in the procurement process. Effectiveness, on the other hand, is defined as the capability of the procurement process to produce the desired result by meeting the commercial, regulatory and socio-economic goals of government in a manner that is appropriate to the government. According to Fairgrieve and Lichère (2011), a process that is deemed to be effective leads to achievement of the intended or expected outcome or produces a deep and vivid impression of devotion towards operational performance. The core concern of the stakeholders in the devolved government constitutes adopting supplier management that promises excellence in procurement processes.
While there is an extensive importance of supplier management presented, supplier involvement can also lead to better supplier performance, improved manufacturing, products and process advancements that enhance the customer satisfaction and procurement performance (Tracey & Vonderembse, 2010). Relative benefits can be gained through the involvement of suppliers on product development and continuous improvement teams. As such, supplier relations management has insert a positive impact on the supplier performance and buying firm’s performance (Kannan & Tan, 2011). In summary, to sustain effective and reliable sources of suppliers, buyer should be involved in supplier relations management regularly.

**Procurement Performance in Kenya**

The expansion of procurement has largely expanded post-implementation of county governments in Kenya. Chapter 11 (Cap 11) of the Kenya Constitution that was promulgated on August 27, 2010 paved the way for the realization of the current devolved system of governance (Obanda, 2010). Juma (2010) noted that public procurement is a critical process in the economy owing to the fact that it controls a sizeable proportion (10%) of Kenya’s GDP. The Kenya constitution of 2010 devolved procurement powers such that at County levels, citizens are responsible for their own purchases (Constitution of Kenya, 2010). As such, each of the 47 counties has an established procurement function bestowed with the responsibility of purchasing goods and services for their departments. Procurement performance performance of such complex institution is founded on adoption of effective supplier management. An ideal procurement system should also focus on effectiveness, where procuring entities should meet the commercial, regulatory and socio-economic goals of government in a manner that is appropriate to the procurement requirement to enhance procurement performance (Oirioki, 2013).
In Kenya, the Public Procurement and Disposal Act, of 2005 was assented to on 26th October 2005 and was revised in 2009 to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities (Mwangi, 2009). With the gazettement of the subsidiary legislation, the PPDR of 2006, the law became operational on 1st January, 2007 (Kirugu, 2010). The Act established three independent bodies; an oversight body, the PPOA, Public Procurement Oversight Advisory Board (PPOAB) and the Public Procurement Administrative Review Board (PPARB).

**Statement of the Problem**

Despite the extensive law provisions that guide the procedures of procurement among devolved governments in Kenya, there has been a myriad of issues arising based on the delayed payments, illegal outsourcing, and unethical procurement which affect effective procurement management. The question that arises in this context constitutes whether the supplier management adopted in their procurement processes has implications on the procurement performance. More than 50% of the corruption cases alleged in the devolved governments are related to supplier relations adopted (Owalla, 2016). The poor procurement performance is a common problem in the in the many county governments with an immeasurable cost spiraling to over USD 10 million (Ksh, 85 billion) annually. Understanding these impacts is crucial in the adoption of efficient and effective supplier management strategies (Cullen, Bernon & Grost, 2015). In Kenya, the central government and county government spends about Kshs. 234 billion per year on procurement. However on annual bases, the national government losses close to Ksh. 71 billion about 17 per cent of the national budget due poor supplier relations used such as inflated procurement quotations (KISM 2014). According to Public Procurement Oversight Authority (PPOA 2014), most of the tendered products/services in many public hospitals have a mark-up of 60 per cent on the market prices. The inefficiency and ineptness of overall selection and implementation of supplier management contributes to loss of over
Ksh.50 million annually (Tom 2014). According to Victor (2012), procurement expenditure could be minimized through proper supplier relations management.

From the empirical standpoint, local studies have been done on the area of procurement performance have focused on the effect of procurement process in companies. Ngugi and Mugo (2007) analyzed the effect of procurement activities on the operation and effectiveness of public sectors in Kenya. Abdi (2012) examined procurement practices of public state corporations in Kenya. Apiyo and Mburu (2014) identified that there has been limited research carried out with the aim of determining the actual reasons why the devolved units have not been able to achieve their streamlined supply chain objectives. Apiyo and Mburu (2014) addressed the general factors affecting the procurement planning in county governments; hence, they did not address the influence of supplier management on procurement performance in devolved governments. Could supplier selection strategies, supplier contracting, supplier relationship management and supplier development hinder effective procurement performance in devolved governments in Kenya? This study seeks to explore more.

**Objectives of the Study**

The specific objectives of the study were to:

i. To assess how supplier selection strategies influence procurement performance in selected county governments in Kenya.

ii. To find out how supplier contracting influence procurement performance in selected county governments in Kenya.

iii. To establish how supplier relationship management influence procurement performance in selected county governments in Kenya.

iv. To identify how supplier development influence procurement performance in selected county governments in Kenya.
Conceptual Framework

Jabareen (2008) argues that a variable is a measurable characteristic that assumes different values among subjects. An independent variable is that variable which is presumed to affect or determine a dependent variable (Jabareen, 2008). A dependent variable is a variable dependent on another variable like the independent variable. A dependent variable is the variable which is measured in the research study (Everitt, 2002). Conceptual framework, according to educational researcher Stratman & Roth (2013), are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at from their questions and find suitable literature.

The conceptual framework comprises of the independent variables or exploratory variables which are the presumed cause of changes in the dependent variable and the dependent variable also called the criterion or predictor variable which the researcher wishes to explain (Kothari, 2004). The conceptual framework depicts the relationship between variables in the study and shows the relationship graphically or diagrammatically (Mugenda & Mugenda, 2012). Here, diagrammatically it illustrates the interaction between the independent variables and the dependent variable in the study, as presented in the figure 2.1 below. Specific literature relating on each of the variables follows thereafter.
Supplier Selection Strategies
- Specifications
- Pre-qualifications
- Rating methods

Supplier Contracting
- Type of contract
- Contract period
- Payment terms

Supplier Relationship Management
- Partnerships
- Collaboration
- Reliability

Procurement Performance
- Timely delivery of goods and services
- Reduced Cost
- Delivery of quality goods and services

Supplier Development
- Benchmarking
- Product development
- Training

Figure 1: Conceptual Framework for the Study

Supplier Selection Strategies
Supplier appraisal is of importance as it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage. The importance of supplier appraisal is that it is an essential aspect of both strategic sourcing, supplier management and the achievement of competitive advantage (Pearson & Ellram, 2008). Companies’ aim that proper supplier appraisal would help to reduce product and material costs while maintaining a high level of quality and after-sales services. Therefore, an efficient
supplier appraisal process needs to be in place for the successful supply chain management (Sonmez, 2008). Supplier evaluation is a crucial purchasing activity for many firms as it could improve on the firm’s resources and core competencies (Hsu, Kannan, Leong & Tan, 2008). The importance of purchasing and materials management has been agreed by the top management for organizations that rely heavily on their suppliers to sustain competitive advantage and improved performance for example the top executives of Honda of America and Daimler-Chrysler agree that supplier evaluation should be rigorous so that they can concentrate on their core competencies (Fitzgerald, 2008; Krause, 2009).

Negotiations are paramount and many hospitals have realized that they can sustain the cost reductions and improve their quality of care by concentrating on their purchasing and supplier management (Kumar et al., 2007). The gains that can be achieved as a result of proper negotiations can result to a 5% improvement in supply saving which can help the hospitals to boost up their operating profits by 1-3%. These profits can be reinvested in hiring the best physicians, doctors and nursing staff to drive up the quality of healthcare Minahan (2007).

During the award after an extensive process, supplier involvement can also lead to better supplier performance, improved manufacturing, products and process advancements that enhance the customer satisfaction and firm performance (Tracey and Vonderembse, 2010). Relative benefits can be gained through the involvement of suppliers on product development and continuous improvement teams. As such, both supplier selection and involvement have inserted a positive impact on the supplier performance and buying firm’s performance. In summary, to sustain effective and reliable sources of suppliers, buyer should select their suppliers carefully and evaluate them regularly ensuring that the terms of contract are beneficial to all during the tender awards (Kannan & Tan, 2011).


**Supplier Contracting**

The need for a defined contracting period is crucial as the performance is considered satisfactory by the Government, the fixed fee is payable at the expiration of the agreed-upon period, upon contractor statement that the level of effort specified in the contract has been expended in performing the contract work. Renewal for further periods of performance is a new acquisition that involves new cost and fee arrangements (Abosag et al., 2008).

The type of contract either Fixed Price Contracts, Variations of fixed price contracts, Cost Reimbursement Contracts, Time and Material Contracts, Letter Contracts, Indefinite Delivery Contracts, Agreements, Purchase Orders and lastly Government Commercial Purchase Card (Credit Card) have to outline the long-term benefits: quality products with lower cost information flow improved between the two parties. The implicit or explicit promise is to continue the relationship and improve in the performance (Somogyi & Gyau, 2010).

Dispute resolution in case of eventualities reflects that purchasers have many options when drafting dispute resolution clauses in their contracts. Some appear very similar but not all are suitable for every project. Whichever is most appropriate, buyers must ensure contracts set out a dispute escalation process and specify the method. If the contract is silent on this point each party will treat the other's proposals with suspicion, assuming that there is an agenda or advantage behind a recommendation to, for example, arbitrate, adjudicate, litigate or mediate. There would also be the opportunity for the party receiving the claim to stall the process by refusing to agree (Gyau & Spiller, 2010).

Commitment to quality by purchasers need to purchase goods and services of the right quality, at the most cost effective price, in the most economic quantities, and ensure that they are available when needed. Failure to meet any of these requirements can seriously affect a department’s ability to meet its objectives and outputs and ultimately to deliver services to
citizens. Procurement is, therefore, strategically important to departments. Reinforcement of the principle that procurement by departments should be based on value for money defined as the optimum combination of whole life costs and quality to meet the customer's requirements rather than initial purchase price (Vogele, 2009).

Supplier Development

Benchmarking Public Procurement is designed to support and enhance decision-making by policymakers in order to increase private sector participation in public tender and stimulate competition, which would ultimately reflect positively on both private and public sides of public procurement. The project will help identify areas for reform and achieve more transparent, competitive, and efficient public procurement systems. Benchmarking Public Procurement presents data that capture important dimensions of the quality and efficiency of public procurement systems to which business communities across the world are confronted (Chidambaranathan et al., 2009).

Product development and innovation could be employed to manage problems buying firms may experience in their supply networks. Firms that include their suppliers in the early stages of innovation projects seem to substantially outperform their peers that do not. Yet a large proportion of companies, does not include suppliers in over 90% of their New Product Development projects. This is based upon our initial findings from World Café sessions and survey respondents. There is strong evidence that organizations today are increasingly implementing SD programs to improve supplier performance and remain competitive (Wagner, 2010).

Training in procurement is a vital aspect of giving fighting forces the ability to perform effectively in the field. Purchasing is just as important in the civilian sector. For this reason, leadership training begins with giving people the basic skills that they require to assume
responsibility, and to discharge whatever managerial authority may be entrusted to them in a way that, if not spectacular, is at least not manifestly incompetent or catastrophically bad. For purchasing departments in hospitals, training would increase the performance and/or capabilities of the buyers and meet the buying firm's short- and/or long-term goals (Modi & Mabert, 2007).

**Supplier Relationship Management**

Effective supplier management can make the procurement process more cost and time efficient. Having supply market intelligence and applying a correct competition situation are ways to implement a good supplier management strategy. Other issues that should be accounted are a reliable source for supplier performance and evaluation as well as developing the suppliers. With the help of common procurement approaches and development projects the supplier relationship is utilized to the maximum (Iloranta 2008).

Supplier relationship management succeeds the best when all the different factors have been taken into account. It is important to consider issues like delivery, packaging, logistics, time management, documentation and reporting and communication. In most cases the problems with suppliers are due to the fact that the contract lacks of detailed information about daily supplier management. Selecting a contact person for the buying and selling organization is essential to ensure the information flow between the organizations (Iloranta 2008).

According to Liker *et al.* (2004), actively developing the supplier relations is important. Understanding your suppliers and utilizing your suppliers mutual competition has proven to be a very effective way of supplier relationship development. Other development ideas include managing your suppliers to improve their performance and abilities. It’s important to keep the managing role to yourself when conducting shared product development projects. The buying organization should communicate information with determination to selected suppliers (Liker
et al. 2004). Understanding the actions and processes of your suppliers is a basis for starting to develop your relationships with them. Supply market intelligence is one the factors that need to be accounted. It explains the mutual competition between competing organizations in the market. With the help of detailed supply market understanding, the factors that affect competitive advantage can be identified. The determination of the knowhow of supplier processes and the total cost structure helps to develop supplier relationships (Liker & al. 2004).

The benefit of the long-term relationships with the supplier in this case is the fact that the supplier will learn about the real needs and requirements of the buyer. This can result is optimization and rationalization of its own operations. The evaluation and measurement of these sorts of activities is hard which makes it a gain for the supplier since it can hide from the buyer and use it as an advantage for its own good (Iloranta 2008). The open books principle is a common strategy with the long-term relations concerning accounting and reporting. One of the problems is that it is easy for the supplier to hide large amounts of money behind single numbers. Controlling human resources accounts is difficult due to the fact that reporting can prove to be distorted which is hard to identify by the buying organization (Iloranta 2008).

**Methodology**

This study used descriptive research design. It involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data. The study was descriptive in nature as it is deemed appropriate because it involved use of written questionnaires administered to respondents. Yin (2003) recommends descriptive design as it allows the researcher to describe, record, analyze and report conditions that exit or existed.

The population and the area of study was drawn from 3 overall best performing ranked county governments in procurement and 3 worst ranked overall performing county government according to the latest procurement performance ratings. The target population of this study
was 90 procurement staff drawn from the six counties. The list of the staff members was obtained from the counties’ procurement departments’ offices. This is illustrated in Table 1.

Table 1: Target Population

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migori</td>
<td>19</td>
<td>21.11%</td>
</tr>
<tr>
<td>Kisii</td>
<td>14</td>
<td>15.55%</td>
</tr>
<tr>
<td>Vihiga</td>
<td>14</td>
<td>15.55%</td>
</tr>
<tr>
<td>Kericho</td>
<td>13</td>
<td>14.44%</td>
</tr>
<tr>
<td>Kwale</td>
<td>17</td>
<td>18.88%</td>
</tr>
<tr>
<td>Isiolo</td>
<td>13</td>
<td>14.44%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (CoG, 2016)

Due to the manageable study population, the study adopted a census survey for the 90 procurement staff as respondents for the study. According to Abbott and McKinney (2013) a census yields more reliable results than a sample, and whenever it is possible it should be undertaken. Questionnaires were used to obtain important information about the population.

The study used inferential statistics which involved multiple regression analysis to establish effects of supplier management on the procurement performance in selected county governments in Kenya. Further, multiple regression analysis was conducted to give various outputs. The results were presented in form of frequency tables and diagrammatic illustrations. Multiple regression equation applied was as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon; \text{ Where:} \]

\[ Y= \text{Procurement performance in selected county governments}; \ \alpha = \text{Constant}; \ X_1 = \text{Supplier Selection strategies}; \ X_2 = \text{Supplier Contracting}; \ X_3=\text{Supplier relationship management}; \ X_4=\text{Supplier Development}; \ \beta_1, \beta_2, \beta_3, \beta_4 = \text{Coefficients}; \ \epsilon = \text{Error term} \]
Findings

Supplier Selection Strategies

The study sought to assess the influence of supplier selection strategies on procurement performance in the selected county governments in the study areas. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Very Great Extent; 4 = Great Extent; 3 = Moderate Extent; 2 = Small Extent; 1= Very Small Extent). Table 2, presents the findings. The scores of ‘Very Great Extent’ and ‘Great Extent’ have been taken to represent a statement not agreed upon, equivalent to mean score of 3.5 to 5.0. The score of ‘Moderate Extent’ has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Small Extent’ and ‘Very Small Extent’ have been taken to represent a statement highly agreed upon equivalent to a mean score of 1.0 to 2.5

The study findings in Table 4.6 with a grand mean of 3.331, a majority of respondents indicated to a great extent that the specifications of suppliers are based on their capacity thus enhancing timely delivery of goods and services (3.654); the pre-qualifications of the suppliers enhances quality managements to effectively ensure there is reduction of procurement costs (3.765); the rating methods to the suppliers is based on merit thus influencing timely delivery of goods and services (3.543); the pre-qualifications of the suppliers has the capacity to meet the long term needs of the suppliers to reduce stock out reduction (3.654); The pre-qualifications of the appraisals of the suppliers is based on the recalls and complaints systems in place to enhance timely delivery of goods and services (3.987); The rating methods of the suppliers is based on the compliance and the regulatory track records to reduce procurement costs (3.459) The study findings are in agreement with literature review by Pearson and Ellram (2008) who established
that supplier management plays a critical role on the procurement performance in an organization.

Table 2: Supplier Selection Strategies

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>The specifications of suppliers are based on their capacity thus enhancing timely delivery of goods and services</td>
<td>34</td>
<td>3.654</td>
<td>.234</td>
</tr>
<tr>
<td>The pre-qualifications of the suppliers enhances quality managements to effectively ensure there is reduction of procurement costs</td>
<td>40</td>
<td>3.765</td>
<td>.412</td>
</tr>
<tr>
<td>The rating methods to the suppliers is based on merit thus influencing timely delivery of goods and services</td>
<td>28</td>
<td>3.543</td>
<td>.432</td>
</tr>
<tr>
<td>The pre-qualifications of the suppliers has the capacity to meet the long term needs of the suppliers to reduce stock out reduction.</td>
<td>32</td>
<td>3.654</td>
<td>.245</td>
</tr>
<tr>
<td>The pre-qualifications of the appraisals of the suppliers is based on the recalls and complaints systems in place to enhance timely delivery of goods and services</td>
<td>36</td>
<td>3.987</td>
<td>.113</td>
</tr>
<tr>
<td>The rating methods of the suppliers is based on the compliance and the regulatory track records to reduce procurement costs</td>
<td>32</td>
<td>3.459</td>
<td>.230</td>
</tr>
<tr>
<td>Composite Mean</td>
<td></td>
<td>3.331</td>
<td></td>
</tr>
</tbody>
</table>
Supplier Contracting

The study sought to assess the influence of supplier contracting on procurement performance in the selected county governments in the study areas. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Very Great Extent; 4 = Great Extent; 3 = Moderate Extent; 2 = Small Extent; 1= Very Small Extent). Table 3, presents the findings. The scores of ‘Very Great Extent’ and ‘Great Extent’ have been taken to represent a statement not agreed upon, equivalent to mean score of 3.5 to 5.0. The score of ‘Moderate Extent’ has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Small Extent’ and ‘Very Small Extent’ have been taken to represent a statement highly agreed upon equivalent to a mean score of 1.0 to 2.5

The study findings in Table 4.7 with a grand mean of 3.009, a majority of respondents indicated to a great extent that the contract period is based on the contract review process to enhance timely delivery of goods and services (3.654); the type of contract ensure there is reduction of procurement costs (3.816); The dispute resolution influence timely delivery of goods and services (3.123); The payment terms defines the dispute rules and regulations to ensure there is timely delivery of goods and services (3.543); The involvement of the affected departments defines the contract period to ensure that there is timely delivery of goods and services (3.781); The type of contract is based on the rules and regulations so as to reduce procurement costs (3.205) The study findings are in agreement with literature review by Pearson and Ellram( 2008) who established that supplier contracting plays a critical role on the procurement performance in an organization The type of contract either Fixed Price Contracts, Variations of fixed price contracts, Cost Reimbursement Contracts, Time and Material Contracts, Letter Contracts, Indefinite Delivery Contracts, Agreements, Purchase Orders and lastly Government Commercial Purchase Card (Credit Card) have the long-term benefits: quality products with
lower cost information flow improved between the two parties. The implicit or explicit promise is to continue the relationship and improve in the performance (Somogyi & Gyau, 2010).

Table 3: Supplier Contracting

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>The contract period is based on the contract review process to enhance timely delivery of goods and services</td>
<td>35</td>
<td>3.654</td>
<td>.432</td>
</tr>
<tr>
<td>The type of contract ensure there is reduction of procurement costs</td>
<td>45</td>
<td>3.876</td>
<td>.009</td>
</tr>
<tr>
<td>The dispute resolution influence timely delivery of goods and services</td>
<td>31</td>
<td>3.123</td>
<td>.156</td>
</tr>
<tr>
<td>The payment terms defines the dispute rules and regulations to ensure there is timely delivery of goods and services</td>
<td>28</td>
<td>3.543</td>
<td>.237</td>
</tr>
<tr>
<td>The involvement of the affected departments defines the contract period to ensure that there is timely delivery of goods and services</td>
<td>36</td>
<td>3.781</td>
<td>.751</td>
</tr>
<tr>
<td>The type of contract is based on the rules and regulations so as to reduce procurement costs</td>
<td>38</td>
<td>3.205</td>
<td>.189</td>
</tr>
</tbody>
</table>

**Composite Mean**

3.009

**Supplier Development**

The study sought to determine the influence of supplier development on procurement performance in the selected county governments in the study areas. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Very Great Extent; 4 = Great Extent; 3 = Moderate Extent; 2 = Small Extent; 1= Very Small Extent). Table 4, presents the findings. The scores of ‘Very Great Extent’ and ‘Great Extent’ have been taken to represent a statement not agreed upon, equivalent to mean
score of 3.5 to 5.0. The score of ‘Moderate Extent’ has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Small Extent’ and ‘Very Small Extent’ have been taken to represent a statement highly agreed upon equivalent to a mean score of 1.0 to 2.5

The study findings in Table 4.8 with a grand mean of 3.112, a majority of respondents indicated to a great extent that they do use of a supplier rating system as a benchmark to enhance timely delivery of goods and services (3.222); the use of a supplier audit system in the county reduces the procurement costs (3.124); Check for a training program frequently has empowered the suppliers thus reduced costs (3.765); there is tracking delivery performance of the supplier has enhanced delivery of goods and services (3.980); there is use of a corrective action system for the supplier ensure the delivery of quality goods and services (3.218); check for product quality review for the supplier to enhance timely delivery of goods and services(3.614); there is a check for continuous improvement program for the suppliers(2.987)

The study findings corroborates with literature review by Modi and Mabert (2010) who established that supplier development through training can enhance procurement performance. Training in procurement is a vital aspect of giving fighting forces the ability to perform effectively in the field. Purchasing is just as important in the civilian sector. For this reason, leadership training begins with giving people the basic skills that they require to assume responsibility, and to discharge whatever managerial authority may be entrusted to them in a way that, if not spectacular, is at least not manifestly incompetent or catastrophically bad. For purchasing departments in hospitals, training would increase the performance and/or capabilities of the buyers and meet the buying firm's short- and/or long-term goals (Modi & Mabert, 2007).
Table 4: Supplier Development

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>We do use of a supplier rating system as a benchmark to enhance timely delivery of goods and services</td>
<td>35</td>
<td>3.222</td>
<td>.234</td>
</tr>
<tr>
<td>Use of a supplier audit system in the county reduces the procurement costs</td>
<td>32</td>
<td>3.124</td>
<td>.009</td>
</tr>
<tr>
<td>Check for a training program frequently has empowered the suppliers thus reduced costs</td>
<td>28</td>
<td>3.765</td>
<td>.812</td>
</tr>
<tr>
<td>Tracking delivery performance of the supplier has enhanced delivery of goods and services.</td>
<td>34</td>
<td>3.980</td>
<td>.064</td>
</tr>
<tr>
<td>Use of a corrective action system for the supplier ensure the delivery of quality goods and services</td>
<td>30</td>
<td>3.218</td>
<td>.045</td>
</tr>
<tr>
<td>Check for Product Quality Review for the supplier to enhance timely delivery of goods and services</td>
<td>32</td>
<td>3.614</td>
<td>.011</td>
</tr>
<tr>
<td>There is a check for continuous improvement program for the suppliers</td>
<td>36</td>
<td>2.987</td>
<td>.062</td>
</tr>
<tr>
<td><strong>Composite Mean</strong></td>
<td></td>
<td><strong>3.112</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Supplier Relationship Management**

The study sought to examine the influence of supplier relationship management on procurement performance in the selected county governments in the study areas. This section presents findings to statements posed in this regard with responses given on a five-point likert scale (where 5 = Very Great Extent; 4 = Great Extent; 3 = Moderate Extent; 2 = Small Extent; 1= Very Small Extent). Table 5 presents the findings. The scores of ‘Very Great Extent’ and ‘Great Extent’ have been taken to represent a statement not agreed upon, equivalent to mean score of 3.5 to 5.0. The score of ‘Moderate Extent’ has been taken to represent a statement agreed upon moderately, equivalent to a mean score of 2.6 to 3.4. The score of ‘Small Extent’
and ‘Very Small Extent’ have been taken to represent a statement highly agreed upon equivalent to a mean score of 1.0 to 2.5

The study findings in Table 4.9 with a grand mean of 3.221, a majority of respondents indicated to a great extent that they do appraise the suppliers annually (3.765); they ensure the suppliers are paid in time (3.876); they do get after sale service from your suppliers annually (3.116); the suppliers do fail to honor the orders issued (3.541); the suppliers offer credit facilities (3.331); resolve immediate problems that would disrupt the work (3.208); recognize contributions and accomplishments of the suppliers (2.987); consult with suppliers on challenges affecting them(3.168); keep suppliers informed about management actions affecting them(3.104). The study findings are in agreement with literature review by Iloranta (2008) who established that the effective supplier management can make the procurement process more cost and time efficient. Having supply market intelligence and applying a correct competition situation are ways to implement a good supplier management strategy. Other issues that should be accounted are a reliable source for supplier performance and evaluation as well as developing the suppliers. With the help of common procurement approaches and development projects the supplier relationship is utilized to the maximum (Iloranta 2008).

Supplier relationship management succeeds the best when all the different factors have been taken into account. It is important to consider issues like delivery, packaging, logistics, time management, documentation and reporting and communication. In most cases the problems with suppliers are due to the fact that the contract lacks of detailed information about daily supplier management. Selecting a contact person for the buying and selling organization is essential to ensure the information flow between the organizations (Iloranta 2008). According to Liker et al. (2004), actively developing the supplier relations is important. Understanding your suppliers and utilizing your suppliers mutual competition has proven to be a very effective
way of supplier relationship development. The benefit of the long-term relationships with the supplier in this case is the fact that the supplier will learn about the real needs and requirements of the buyer.

**Table 5: Supplier Relationship Management**

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>We do appraise the suppliers annually.</td>
<td>34</td>
<td>3.765</td>
<td>.543</td>
</tr>
<tr>
<td>We ensure the suppliers are paid in time</td>
<td>28</td>
<td>3.245</td>
<td>.305</td>
</tr>
<tr>
<td>We do get after sale service from your suppliers annually</td>
<td>44</td>
<td>3.876</td>
<td>.492</td>
</tr>
<tr>
<td>The suppliers do fail to honor the orders issued</td>
<td>36</td>
<td>3.116</td>
<td>.257</td>
</tr>
<tr>
<td>Our suppliers offer credit facilities.</td>
<td>45</td>
<td>3.541</td>
<td>.452</td>
</tr>
<tr>
<td>Resolve immediate problems that would disrupt the work.</td>
<td>36</td>
<td>3.331</td>
<td>.231</td>
</tr>
<tr>
<td>Recognize contributions and accomplishments of the suppliers.</td>
<td>35</td>
<td>3.208</td>
<td>.211</td>
</tr>
<tr>
<td>Consult with suppliers on challenges affecting them.</td>
<td>31</td>
<td>3.168</td>
<td>.345</td>
</tr>
<tr>
<td>Keep suppliers informed about management actions affecting them.</td>
<td>30</td>
<td>3.104</td>
<td>.219</td>
</tr>
<tr>
<td>Composite mean</td>
<td></td>
<td>3.221</td>
<td></td>
</tr>
</tbody>
</table>

**Procurement Performance**

On the extent to which procurement performance in the selected county governments respondents were asked to indicate the extent to which it was affected. The data was collected from the different indicators of the variable procurement performance which was ordinal categorical. The data was therefore presented in frequency tables with the mode being used as the appropriate measure of central tendency. The results were presented in Table 6. The first indicator for the dependent variable required to know the county governments level procurement performance was timely delivery of products was, 69% of the respondents had 0-20%, 3% had 20-30%, 11% had 30-40%, 17% had 40-50%, 0% had over 50%. The modal class
is of the respondents who had over 0%-20% timely delivery of products. The mode was found to be 1 which implies that on average the county governments’ level procurement performance on timely delivery of products is between 0%-20%. When the respondents were asked what the level of transparency and accountability of procurement funds was, 60% of the respondents 0-20%, 3% had 20-30%, 3% had 30-40%, 34% had 40-50%, 0% had over 50%. The modal class is of the respondents who had over 0%-20% transparency and accountability. The mode was found to be 1 which imply that on average the level of transparency and accountability of procurement funds in organizations is between 0%-20%. Finally, the respondents were asked what the level of quality of procured goods and services offered was, 34% of the respondents 0%-20%, 3% had 20-30%, 20% had 30-40%, 43% had 40-50%, 0% had over 50% The modal class is of the respondents who had between 0%-20%, quality level. The mode was found to be 1 which implies that on average the level of Quality of procured goods and services offered is between 0%-20%.

Table 6: Procurement Performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>0% - 20%</th>
<th>10% - 20%</th>
<th>20% - 30%</th>
<th>30% - 40%</th>
<th>40% - 50%</th>
<th>Over 50%</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the level of timely delivery of products?</td>
<td>69</td>
<td>3</td>
<td>11</td>
<td>17</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>What is the level of reduction of costs?</td>
<td>49</td>
<td>3</td>
<td>14</td>
<td>26</td>
<td>49</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>What is the level of transparency and accountability of procurement funds</td>
<td>60</td>
<td>3</td>
<td>3</td>
<td>34</td>
<td>60</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>What is the level of quality of procured goods and services offered?</td>
<td>34</td>
<td>3</td>
<td>20</td>
<td>43</td>
<td>34</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Multiple Regression Analysis

A multiple regression model was fitted to determine whether independent variables notably, \(X_1=\text{Supplier Selection Strategies}, X_2=\text{Supplier Contracting}, X_3=\text{Supplier Development}, X_4=\text{Supplier Relationship Management}\) simultaneously affected the dependent variable \(Y=\text{Procurement Performance}\) in the selected county governments. As a result, this subsection examines whether the multiple regression equation can be used to explain the nature of the relationship that exists between the independent variables and the dependent variable. The multiple regression model was of the form: As can be observed in Table 7, the regression model of Procurement Performance coefficient of determination R Square was 0.632 and R was 0.795. The coefficient of determination R Square indicated that 63.20% of the variation on Procurement Performance can be explained by the set of independent variables, namely; \(X_1=\text{Supplier Selection Strategies}, X_2=\text{Supplier Contracting}, X_3=\text{Supplier Development}, X_4=\text{Supplier Relationship Management}\). The remaining 36.80% of variation in Procurement Performance can be explained by other variables not included in this model. This shows that the model has a good fit since the value is above 60%. This concurs with Graham (2012) that R-squared is always between 0 and 100%: 0% indicates that the model explains none of the variability of the response data around its mean and 100% indicates that the model explains the variability of the response data around its mean. In general, the higher the R-squared, the better the model fits the data. The adjusted R square is slightly lower than the R square which implies that the regression model may be over fitted by including too many independent variables. Dropping one independent variable will reduce the R square to the value of the adjusted R square. This indicates that supplier selection strategies, supplier contracting, supplier development, supplier relationship management are important factors of supplier management that need to be applied to enhance to procurement performance in the selected county governments.
Table 7: Model Summary, Multiple Regression

<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>.795</td>
<td>.632</td>
<td>.617</td>
<td>.092</td>
</tr>
</tbody>
</table>

The study further used Analysis of Variance (ANOVA) in order to test the significance of the overall regression model. Green and Salkind (2013) posit that Analysis of Variance helps in determining the significance of relationship between the research variables. The results of Analysis of Variance (ANOVA) for regression coefficients in Table 8 reveals that the significance of the F statistics is 0.001 which is less than 0.05 and the value of F-calculated (10.855) which is greater than the F-critical value (4.008) being significant at 0.001 confidence level. The value of F is large enough to conclude that the set coefficients of the independent variables are not jointly equal to zero. This implies that at least one of the independent variables has an effect on the dependent variable and this shows that the overall model was significant.

Table 8: Analysis of Variance (ANOVA), Multiple Regression

<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>Regression</td>
<td>14.876</td>
<td>4</td>
<td>3.719</td>
<td>10.855</td>
<td>.001^b</td>
</tr>
<tr>
<td>Residual</td>
<td>20.558</td>
<td>60</td>
<td>.3426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35.434</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NB: Critical value = 4.008

Table 9 presents the beta coefficients of all independent variables procurement performance in the selected county governments in Kenya. As can be observed from Table 4.13, Supplier
Selection Strategies ($X_1$) had a coefficient of 0.776 which is greater than zero. The t statistics is 4.455 which has a p-value of 0.000 which is less than 0.05 implies that the coefficient of $X_1$ is significant at 0.05 level of significance. This shows that supplier selection strategies influence procurement performance in the selected county governments in Kenya. The coefficient of supplier contracting ($X_2$) was 0.680 which was greater than zero. The t statistic of this coefficient is 3.266 with a p value of 0.001 which is less than 0.05. This implies that the coefficient 0.820 is significant. Since the coefficient of $X_2$ is significant, it shows that supplier contracting has a significant effect on procurement performance in the selected county governments in Kenya. Table 4.13 also shows that supplier development ($X_3$) had a coefficient of 0.578 which is greater than zero. The t statics is 3.011 which has a p-value of 0.002 which is less than 0.05 implies that the coefficient of $X_3$ is significant at 0.05 level of significance. This shows that supplier development has a significant positive impact on procurement performance in the selected county governments in Kenya.

Table 9, further shows that supplier relationship management ($X_4$) had a coefficient of 0.555 with a t static of 2.969 which has a p-value of 0.003 which is less than 0.05. This implies that the coefficient of $X_4$ is significant at 0.05 level of significance. This shows that supplier relationship management has a significant positive influence on procurement performance in the selected county governments in Kenya. Finally, the constant term is 10.876. The constant term is the value of the dependent variable when all the independent variables are equal to zero. The constant term has a p value of 0.001 which is less than 0.05. This implies that the constant term is significant is thus an equation through the 10.876. If all the independent variables take on the values of zero, there would be 10.876 procurement performance in the selected county governments in Kenya.
Table 9: Regression Model (Overall)

Regression Coefficients

<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>(Constant)</td>
<td>10.876</td>
<td>.076</td>
<td>5.309</td>
<td>.001</td>
</tr>
<tr>
<td>Supplier Selection</td>
<td>.776</td>
<td>.087</td>
<td>.702</td>
<td>4.455</td>
</tr>
<tr>
<td>Supplier Contracting</td>
<td>.680</td>
<td>.156</td>
<td>.555</td>
<td>3.266</td>
</tr>
<tr>
<td>Supplier Development</td>
<td>.578</td>
<td>.200</td>
<td>.405</td>
<td>3.011</td>
</tr>
<tr>
<td>Supplier Relationship</td>
<td>.555</td>
<td>.276</td>
<td>.359</td>
<td>2.969</td>
</tr>
</tbody>
</table>

The general form of the equation was to predict procurement performance from supplier selection strategies, supplier contracting, supplier development and supplier relationship management is: \( Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \) becomes: \( Y = 10.876 + 0.776X_1 + 0.680X_2 + 0.578X_3 + 0.555X_4 \). This indicates that Procurement Performance = 10.876 + 0.776*Supplier Selection Strategies + 0.680*Supplier Contracting + 0.578*Supplier Development + 0.555*Supplier Relationship Management + 0.076.
Summary of the Study Findings
The study findings indicated that majority of the respondents stated that the great extent that the specifications of suppliers are based on their capacity thus enhancing timely delivery of goods and services. The pre-qualifications of the suppliers enhance quality managements to effectively ensure there is reduction of procurement. The rating methods to the suppliers are based on merit thus influencing timely delivery of goods and services. The pre-qualifications of the suppliers has the capacity to meet the long term needs of the suppliers to reduce stock out reduction. The pre-qualifications of the appraisals of the suppliers are based on the recalls and complaints systems in place to enhance timely delivery of goods and services.

The study findings indicated to a great extent that the majority of respondents indicated the contract period is based on the contract review process to enhance timely delivery of goods and services. The type of contract ensures there is reduction of procurement costs and dispute resolution influence timely delivery of goods and services. The payment terms defines the dispute rules and regulations to ensure there is timely delivery of goods and services. The involvement of the affected departments defines the contract period to ensure that there is timely delivery of goods and services. The type of contract is based on the rules and regulations so as to reduce procurement costs.

The study established that majority of respondents indicated to a great extent that they do use of a supplier rating system as a benchmark to enhance timely delivery of goods and services. The use of a supplier audit system in the county reduces the procurement costs. They check for a training program frequently has empowered the suppliers thus reduced costs. There is tracking delivery performance of the supplier has enhanced delivery of goods and services. There is use of a corrective action system for the supplier ensure the delivery of quality goods and services and check for product quality review for the supplier to enhance timely delivery
of goods and services. Finally, there is a check for continuous improvement program for the suppliers.

The study findings indicated that a majority of respondents stated to a great extent that they do appraise the suppliers annually; they ensure the suppliers are paid in time and they do get after sale service from your suppliers annually. The suppliers do fail to honor the orders issued and the suppliers offer credit facilities. They resolve immediate problems that would disrupt the work and recognize contributions and accomplishments of the suppliers. They consult with suppliers on challenges affecting them and keep suppliers informed about management actions affecting them.

The study sought to examine the influence of supplier management on procurement performance in selected county governments in Kenya. The level of timely delivery of products, reduction of costs, level of transparency and accounting of funds and level of quality of products and services offered recorded low positive achievements. From inferential statistics, a positive correlation is seen between each determinant variable and procurement performance in selected county governments. The strongest correlation was established between supplier selection strategies and procurement performance in selected county governments. All the independent variables were found to have a statistically significant association with the dependent variable at ninety-five level of confidence. Analysis of variance was further done and it was established that there was a significant mean. This is since the p-values of their coefficients were all less than five level of significance.

**Conclusions of the Study**

Based on the study findings, the study concludes that procurement performance in selected county governments is affected by supplier selection strategies, supplier contracting, supplier
development and supplier relationship management are the major factors that mostly affect procurement performance in selected county governments in Kenya.

The study concludes that a supplier selection strategy is the first important factor that affects procurement performance in selected county governments. The regression coefficients of the study show that supplier selection strategy has a significant influence on procurement performance in selected county governments. This shows that supplier selection strategy has a positive influence on procurement performance in selected county governments.

The study concludes that supplier contracting is the second important factor that affects procurement performance in selected county governments. The regression coefficients of the study show that supplier contracting has a significant influence on procurement performance in selected county governments. This shows that supplier contracting has a positive influence on procurement performance in selected county governments.

Further, supplier development is the third important factor that affects procurement performance in selected county governments. The regression coefficients of the study show that supplier development has a significant influence on procurement performance in selected county governments. This implies that increasing levels of supplier development increase the levels of procurement performance in selected county governments. This shows that supplier development has a positive influence on procurement performance in selected county governments.

Supplier relationship management is the fourth important factor that affects procurement performance in selected county governments. The regression coefficients of the study show that supplier relationship management has a significant influence on procurement performance in selected county governments. This implies that increasing levels of monitoring and evaluation would increase the levels of procurement performance in selected county governments.
governments. This shows that supplier relationship management has a positive influence on procurement performance in selected county governments.
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