



**INFLUENCE OF SUPPLIER DEVELOPMENT PRACTICES ON PROCUREMENT PERFORMANCE OF COUNTY GOVERNMENTS; A CASE OF KAKAMEGA COUNTY GOVERNMENT**

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**ABSTRACT**

*The general objective of this study was to examine the influence of supplier's development practices on procurement performance. The specific objectives were; to evaluate the influence of supplier's identification on procurement performance of County Government of Kakamega; Kenya, to examine the influence of supplier's evaluation on procurement performance of County Government of Kakamega; Kenya, to determine the influence of supplier's technical capability on procurement performance of County Government of Kakamega; Kenya and to assess the influence of supplier's information provision on procurement performance of County Government of Kakamega; Kenya. This study employed descriptive research design. The target population of this study composed of senior officers directly linked to decision making on procurement matters in the County Government of Kakamega. Census technique was applied on the population and the entire targeted population was put under consideration since it was manageable. The study used structured questionnaire as an instrument of primary data collection. The study focused on descriptive and inferential statistics that was analyzed and computed by use of SPSS version 24. Descriptive statistics involved computation of mean, frequencies and standard deviations of the primary data and inferential statistics dealt with correlation of variables and determination of regression model. The study concluded that supplier development practices have influence on procurement performance. In terms of impact of influence, supplier's identification was ranked first, followed by supplier's evaluation, supplier's information provision and supplier's technical capability. The recommendation of the study was that the County Government to embrace supplier development practices since procurement performance would be enhanced and further research should be conducted to find the strength supplier development practices have on procurement practice in private organizations.*

**Key Words:** *Supplier's Identification, Supplier's Evaluation, Supplier's Technical Capability, Supplier's Information Provision, Procurement Performance*

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## INTRODUCTION

Procurement as a function of an organization plays a major role on how to make decisions of acquiring resources, use and dispose if need be. According to Humphreys (2013), purchasing research have tried to focus on supplier development programs and explore how these initiatives impact on procurement performance, which eventually leads to organizational improvement. In the study by Fu, Zhu and Sarkis (2012) on the study of procurement management, Supplier development is concerned with assisting the actual and potential suppliers produce and supply high quality inputs to their prospective clients. Hong and Kwon (2012) Procurement performance refers to how well an organization achieves its purchasing and disposal functional objectives.

Public procurement has been discussed globally for the sake of understanding how governments can assist in coming up with new technologies and encourage the growth of businesses and the economy at large. According to Fraunhofer (2005), procurement has been a subject of focus in Europe, however, hardly any research papers in the United States of America's examples of public procurement that might have triggered innovation beyond the national defense and security areas. Though the United States has a strategic orientation in their public procurement not linked to innovation as in china and other countries.

In the study by Justine (2014) on procurement practices in Ghana, it was observed that due to the scarce revenue base of the country which is worsened by the dwindling tax input as a result of Small Medium businesses folding up, it enhances to reason that the personnel should be tasked to oversee and administer local governance, develop management practices for procurement practices which will guarantee that the worth of the money invested is always attained in all procurement undertakings. This scholar noted that across the world, the practice of purchasing in both corporate and governmental procurement has transitioned from a contained, operational activity to one that is

more consolidated and strategic in practice and in nature.

Developing countries, among them; Kenya has increased demand for better services; hence there is need to effectively manage the public supply chains. In the study by Diageo (2011) on procurement management, interrelationships between the partners in the supply chain needs to be managed to enhance performance, continuity and shared sense of value within the whole organization. In today's highly competitive environment, supply chain performance is very vital for the survival of firms because customers judge the performance of firms basing on their supply chain performance.

Kiarie and Karanja (2015) contemplates, despite the attempts by the private industries in emerging economies, like Kenya and growth associates like World Bank to develop performance of the procurement function, procurement is still stained by sloppy works, poor quality goods and services. This persistent predicament has occasioned a decline of procurement/supply performance of many private companies. Failure to put into practice or overdue execution of the recommended procurement processes has yielded unreasonably high operation costs, poor inventory control, intolerable supplier appraisals standards, unwarranted business activities, and failure to have skilled employees in the procurement positions, hence upsetting the procurement function's performance.

### Statement of the problem

Globally most organizations are run in an environment that comprises of mixed up functions of economic and political interference to their sources of supplies and services; therefore to thrive in this volatile environment, these organizations must keep on monitoring their procurement practicing situations together with their internally controllable processes, particularly the procurement process (Isaac & Robert, 2015). In the study by Giunipero and Sawchuck (2013) on procurement management, procurement

performance involves the measures adopted by the organization to incorporate supply chain so as to reduce on costs and time and increase the output. According to Ombaka (2013), most public institutions, procurement departments are characterized by various inefficiencies like poor record keeping, delays in paying suppliers, increased procurement cycle time among others; hence resulting into inefficiencies in the procurement processes that affects performance.

Studies have been conducted by scholars among them Oyuke and Shale (2014) on procurement, especially the linking strategic procurement and organizational performance in both public and private sector but little emphasis on supplier development being linked to Procurement Performance. More so, most of the scholars including (Oyuke and Shale (2014): Kwasira and Muiga (2016): Mairura (2015)) recommended for further study on procurement performance in organizations; hence gave rise to a research gap that necessitated the study to be undertaken in County Government of Kakamega being a devolved public organization.

### **Objectives of the Study**

The general objective of the study was to examine the influence of supplier development practices and procurement performance of County Government of Kakamega; Kenya. The specific objectives were;

- To evaluate the influence of supplier's identification on procurement performance of County Government of Kakamega; Kenya
- To examine the influence of supplier's evaluation on procurement performance of County Government of Kakamega; Kenya
- To determine the influence of Supplier's Technical Capability on procurement performance of County Government of Kakamega; Kenya
- To assess the influence of supplier's Information provision on procurement performance of County Government of Kakamega; Kenya

The study was guided by the following research hypotheses;

- H<sub>01</sub>: supplier's identification does not significantly influence procurement performance of County Government of Kakamega; Kenya
- H<sub>02</sub>: supplier's evaluation does not significantly influence procurement performance of County Government of Kakamega; Kenya
- H<sub>03</sub>: Supplier's Technical Capability does not significantly influence procurement performance of County Government of Kakamega; Kenya
- H<sub>04</sub>: supplier's Information Provision does not significantly influence procurement performance of County Government of Kakamega; Kenya

## **LITERATURE REVIEW**

### **Transaction Cost Economics Theory**

The theory of Transaction Cost Economics was advocated by Williamson in 1979. Transaction Cost Economics is an economic theory that provides an analytical framework for investigating the governance structure of contractual relations within a supply chain. Transaction Cost Economics theory inspects how business partners who collaborate with each other shields one another from harmful subsidiary with differing relationships (Klein, 2000). It has been the most important new institutional theory which puts the accentuation on the decision on the sourcing predicament, if to outsource or not. The sourcing situation of a firm is likewise described as the make-or-buy decision of a firm (Christopher & Shook, 2009). The two primary drivers of Transaction Cost Economics are uncertainty caused by the external environment and costs, which consist of Coordination costs and Transaction costs, uncertainty and costs, are influenced by the human agent, an individual distinguished through bounded rationality and opportunism, in order to dissect transaction costs (Fink, 2006).

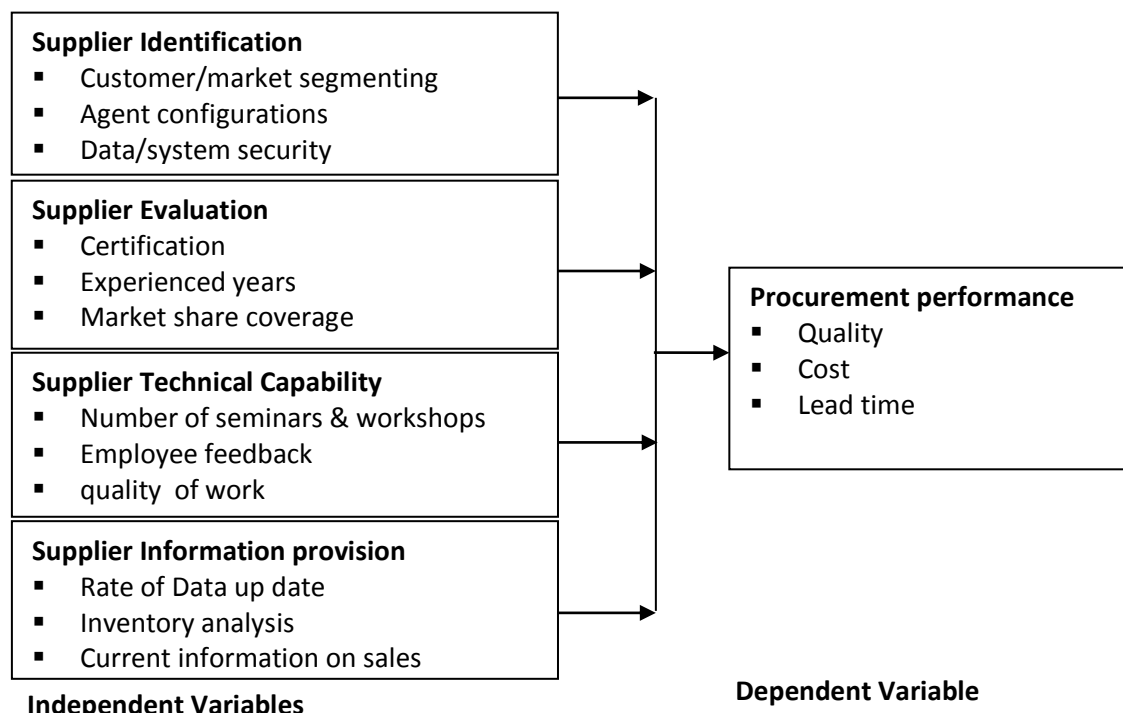
### Agency Theory

In the study by Kimeria and Ngugi (2013), Agency Theory, a contractual relationship is entered by two persons; that is; the principal and the agent to perform some service. This involves delegating some decision-making authority to the agent by the principal. At the same time, an agent is a person employed for bringing his principal into a contractual relationship with a third party. He does not make a contract on his own behalf. Agency Theory is concerned with agency relationships. The two parties have an agency relationship where they cooperate and engage in an association wherein one party (the principal) delegates decisions and/or work to another (an agent) to act on its behalf (Eisenhardt, 2009).

### Social Capital Theory

Social capital refers to the norms and networks that enable people to act collectively (Portes, 1998);

hence Social capital theory was advocated by (Granovetter, 1985). The principles of this theory is that, while different entities in a capitalistic society have their personal objectives and goals to focus on accomplishing, players have realized that combining efforts with likeminded partners yields better results than working in isolation. The supplier strives to sell their products to any buyer who can offer the best price without any regard to the relationship. This theory underpins the need for establishing working relationships between a buyer and a supplier to enhance mutual benefits. This therefore calls for both firms deploying their resources in support of each other so as to realize common goals. The buyer therefore commits their firm’s resources and infrastructure to support their selected suppliers to enhance their capabilities in production related activities whose effect is shared by the buying firms (Granovetter, 1992).



**Figure 1: Conceptual framework**

Supplier’s identification is the process by which suppliers are inspected, evaluated and selected to eventually become part of the supply chain of an organization (de Boer, 2012). The Identification and evaluation of suppliers is an area which has

attracted the attention of most studies, and there are several approaches to support decision making on this issue (Rajesh & Ravi, 2015). One of the most important aspects for companies' success is the relationship between companies and their



suppliers. Consequently, the way that a supplier is identified is crucial to the outcome of the business. Shaw, Shankar, Yadav and Thakur (2012) the supplier identification problem is a multi-criteria decision-making problem in the presence of various criteria and sub-criteria, be they quantitative or qualitative. Due to this characteristic, there arises the need to use more robust tools for decision support.

Supplier evaluation is a management activity whose primary aim is acquiring information to analyze and to manage supplier relationships and supply situations (Dobos *et al.*, 2012). The process entails the simultaneous consideration of a number of critical supplier performance features that include price, delivery lead-times, and quality (Bruno, Esposito, Genovese & Passaro, 2012). The main aim of the evaluation of suppliers is to form different groups from the selected suppliers to create different supplier management strategies for segments involved. Supplier evaluation and assessment is done to evaluate potential supplier's capability of controlling quality (delivery, quantity, price, and all other factors to be embedded in a contract). Such evaluation is carried out at the pre-contract phase of supplier sourcing. This exercise helps in enabling the suppliers rate their capabilities relative to the buying organization expectations and hence establish areas to invest in so as to match expectations.

Technological capability is critically important to the future competitiveness of manufacturing industry. Prajogo and Olhager (2012) describe a typology of small and medium sized manufacturing suppliers, where the technology specialists and problem-solving suppliers are likely to be the most critical in terms of their technological contribution to the end product. It is crucial for their customers that these suppliers maintain and develop their technological capabilities, regardless of the size of the supplier company. Improving suppliers' technological capabilities obviously requires a long-term focus. Technical capability relates to engineering issues and the supplier's capability to meet performance

and technical specifications and requirements. Activities related to the provision of technical support are fundamental to suppliers' performance (Gebauer, Paiola & Edvardsson, 2012). This technical support might consist of direct investment in equipment and personnel of the suppliers, evaluation of supplier performance and sharing feedback on the evaluation results, visiting suppliers' plants, and supplier certification.

The main premise of Supply Chain Management is that information exchange for goal sharing and process integration between trading partners in a supply chain, can reduce total logistics costs and enhance the value delivered to the customers (Sungbae, 2015). Wu, Chuang and Hsu (2014) defined information exchange as the relaying of business-related information in a way that enables the recipient to take action. Park and Lee (2014) noted the premise behind supply chain management (SCM) is that the sharing of information and coordination of strategies among firms in a supply chain can reduce total logistics costs and enhance value delivered to the customer. The sharing of information with supply chain partners is critical to the success of the supply chain. Judith (2017) described information sharing as frequent information updating among the chain members for effective supply chain management. In this dynamic and unpredictable world, an organization's capability to access the right information at the right time holds the key to sustenance and longevity. As the suppliers are important and integral part of supply chain management and supplier management an important part of any organization's strategies, having the right information on suppliers and supplier's performance becomes imperative (Kearney, 2013). Effective inter-organizational communication could be characterized as frequent, genuine, and involving personal contacts between buying and selling personnel (Wu, Chuang & Hsu, 2014).

## Empirical Review

Several supply chain researchers have done research on the subject of supplier development subject and filed their findings. Some of the empirical studies done include; Li, Humphreys, Yeung and Cheng (2012) they conducted a study on the impact of supplier development on buyer competitive advantage. The study established that The results show that top management, supplier evaluation, and supplier strategic objectives are significant determinants of transaction-specific supplier development, and that buyers that have closer collaborative relationships with suppliers may strengthen their competitive advantage. This study however did not show how buyer-supplier relationships affect operational performance.

Waraporn (2012) did a study on the impact of supplier development on supplier performance investigated the role of buyer-supplier commitment in supplier performance improvement. The study revealed that the buying company would implement the supplier development strategies by focusing on buyer-supplier relationship commitment for performance improvement. The authors therefore recommended that managers should place strong emphasis on developing specific relationship with suppliers. The study however did not dwell on the significance of supplier development on the buyer firm's performance.

Nagati and Rebolledo (2013) did a study on the supplier development efforts on suppliers' point of view. The empirical results of this study suggest that trust and preferred customer status are key antecedents of supplier participation in SD activities, and confirm the positive impact of this participation on the suppliers' operational performance. The results indicate that a dynamic environment also motivates suppliers to participate in SD activities.

Sancha, Gimenez, Sierra and Kazeminia (2015) did a study on whether implementing social supplier development practices pay off. The study was tested in a sample of 120 Spanish manufacturing firms using path analysis. The results suggest that

while supplier development practices help to improve the suppliers' social performance and the buying firm's operational performance, they do not pay off in terms of economic performance. Govindan, Rajendran, Sarkis and Murugesan (2015) did a study on multi criteria decision making approaches for green supplier evaluation and selection. The study employed both qualitative and quantitative environmental data. The study established that that the applied techniques are mostly fuzzy based single model approaches. The most common criterion considered for green supplier selection was environmental management systems.

Rajesh and Ravi (2015) did a study on supplier selection in resilient supply chains: a grey relational analysis approach. Sensitivity analysis was also conducted to identify how far the selection priorities of suppliers change by varying the weightings given to each of the resilience attributes. This helps us in identifying the attributes of resilience where a particular supplier performs well. A comparison of proposed grey methodology with analytic hierarchy process (AHP) and analytic network process (ANP) was also conducted to comprehend extent of out-performance. The study established that Suppliers can be considered as inevitable sources of external risks in modern supply chains. Selection of suppliers is a challenging issue that involves the evaluation of both qualitative and quantitative attributes, in usual have imprecise and limited information.

PohLean, Wai Peng Wong, Ramayah and Jantan (2012) examined the mediation role of supplier development management practices on the influence of power asymmetry and competition intensity on supplier performances. The framework pieced together idea from the marketing literature and organization theory. Based on the study, high involvement work practices (HIWP) in an organization are indeed important as it mediates the influence of competition intensity on supplier quality and flexibility. The study also showed that there is no single formula that can fit all situations.

Managers need to understand its supplier management practices in order to better leverage organizational context of competition and power in managing performance.

Li, Humphreys, Yeung and Cheng (2012) did a study on the impact of supplier development on buyer competitive advantage. The results show that top management, supplier evaluation, and supplier strategic objectives are significant determinants of transaction-specific supplier development, and that buyers that have closer collaborative relationships with suppliers may strengthen their competitive advantage. Buyers that have closer collaborative relationships with suppliers may strengthen their competitive advantage.

Bruno, Esposito, Genovese and Passaro (2012) did a study on AHP-based approaches for supplier evaluation. The study was based on Analytical Hierarchical Process (AHP), one of the most prominent methodologies used to address the problem. The analysis of the implementation process of the methodology allows the identification of strengths and weaknesses of using formalized supplier selection models to tackle the supplier evaluation problem, also highlighting potential barriers preventing firms to adopt such methods. The study established that important managerial implications emerge for large customers and small suppliers. A formal supplier evaluation method is a key management tool for supply systems.

Ng'ang'a (2014) did a study on supplier selection criteria and supply chain performance in nongovernmental organizations in Kenya. The study focused on only 48 highly active NGO's in Kenya from a population of 2,507 NGO's available in Kenya. Descriptive research design and proportionate random sampling were used to achieve the results. The results confirmed that supply chain decisions play a very important role in agreement with the criteria aligning with the NGO's strategy.

Wangeci (2013) conducted a study on supplier relationship management and supply chain performance in the alcoholic beverage industry in Kenya. The specific objectives of the study was to establish the extent of SRM in alcoholic beverage industry; to determine the impact of SRM on supply chain performance in alcoholic beverage industry in Kenya and to determine the challenges faced in implementing SRM in alcoholic beverage industry in Kenya. The study adopted descriptive design to describe the impact of SRM on organizational performance. The target population and sample was from Procurement staff from alcoholic beverage industries. Regression analysis was used to determine the relationships between the variables. The study concluded that firms in the alcohol beverage industry are moving towards collaborative relationships with their suppliers to improve on their supply chain performance. That SRM largely depends upon four major aspects. Mwikali and Kavale (2012) did a study on factors affecting the selection of optimal suppliers in procurement management. The study employed descriptive research design. The sample size was selected using random sampling technique. The study found that a cost criterion is a key factor affecting supplier selection for it dictates among many elements, the profit margins. Technical capability, quality of materials and the profile of the supplier are also closely considered.

Mwirigi (2011) in his study sought to establish the role of supply chain relationships in the growth of small firms in Kenya. The target population of the study was small enterprises that are loan clients of Faulu Kenya. To understand the role played by supply chain relationships among respondent firms, the study examined various relationships. The research found out that supply chain relationships play a critical role in the growth of small enterprises. They contribute to the growth and profitability of these firms in many ways. Findings of this study indicated that a strong sustainable relationship between an enterprise and its customers on one hand, and its suppliers on the



other hand have a bearing on the speed of growth in transactions and profitability. The study concluded that there is need for the process of creation of supply chain relationships to be approached in a more structured way to enhance its role in the growth of small enterprises.

## METHODOLOGY

This research adopted descriptive survey research design. The study targeted Audit, finance and procurement senior officers from County Government of Kakamega. The study sample size was the whole population of 92 respondents; hence census technique was applied since the population was manageable. The study employed census technique which took care of all the officers of concerned departments under study. Primary data was collected by means of self-administered questionnaires. Data collected from the field was coded, cleaned, tabulated and analyzed using both descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences (SPSS) version 24 software. Correlation analysis was used together with regression analysis to measure

how well the regression line explained the variation of the dependent variable. Multiple regression and correlation analyses were based on the association between two (or more) variables.

Study conceptualized Regression Model was as below;

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

y = Procurement performance in County Government of Kakamega

$\beta_0$  = Constant

$X_1$  = Supplier's Identification

$X_2$  = Supplier's Evaluation

$X_3$  = Supplier's Technical Capability

$X_4$  = Supplier's Information Provision

{ $\beta_0$ - $\beta_4$ } = Beta coefficients

e = the error term

## FINDINGS AND DISCUSSIONS

### Descriptive statistics: Supplier's Identification and Procurement Performance

These were summarized responses on whether supplier's identification influenced procurement performance of County Government of Kakamega. The descriptive results were presented in table 1.

**Table 1: Descriptive statistics; Supplier's Identification**

Statement	5	4	3	2	1	Mean	S.D
Identified suppliers are only the ones who can meet quality standards of the organization	16 (20.8)	34 (44.2)	8 (10.4)	12 (15.5)	7 (9.1)	3.52	0.923
Firms identification criteria ensures only suppliers meeting County standards are selected	10 (13.0)	27 (35.1)	17 (22.1)	12 (15.6)	11 (14.2)	3.37	0.925
Assessment process has always identified suppliers meeting firms quality standard	13 (16.9)	37 (48.1)	8 (10.4)	10(13)	9 (11.6)	3.49	0.923
Supplier identified are the only one who possess positive market reputation	9 (11.7)	39 (50.6)	9 (11.7)	8 (10.4)	12 (15.6)	3.32	0.927
The criteria for firm identification ensures that only suppliers with high performance reputation are contracted	11 (14.3)	33 (42.9)	12 (15.6)	10 (13)	11 (14.2)	3.39	0.928
The selection process has often identified suppliers with the history of high performance	13 (16.9)	38 (49.3)	9 (11.7)	9 (11.7)	8 (10.4)	3.50	0.927
<b>Valid list wise=76</b>							
<b>Grand mean =3.43</b>							

From table 1, most respondents agreed (44.2%) that the identified suppliers are the only ones who can meet quality standards of the County Government of Kakamega, while 15.5% disagreed to the statement, implying that there were suppliers not identified but could meet quality standards of the County Government of Kakamega. More closely, only 35.1% agreed while 22.1% of respondents were uncertain that firms identification criteria ensures only suppliers meeting County standards are selected; thus revealing existence of inefficiency of some of procurement operations experienced by the County. Further, while 48.1% of respondents agreed that most of assessment criteria has always ensured that only suppliers meeting quality standards are identified by the County. 13.0% disagreed revealing existence of assessment process only identifying suppliers that meet quality standards. More so 50.6% of respondents agreed that the Suppliers identified are only those who meet positive market reputation platforms, while 42.9% of respondents also agreed that only suppliers with high performance reputation are contracted; thus indicating that supplier's identification has not really been embraced by County system.

Lastly, most respondents agreed (49.3%) and strongly agreed (16.9%) that generally, the County only identifies suppliers that have a good history of procurement practices; hence adoption of the supplier's identification, implying that Procurement performance has a relation with supplier's identification. In the study by Torabi, Baghersad and Mansouri (2015) on procurement management, in the current context of globalization, companies are increasing the focus on their core business and outsourcing their other activities. This behaviour increases the importance of the process for identifying suppliers. While small firms select partners based on criteria which determine the lowest costs, large companies must identify their suppliers more carefully, by considering different criteria that seek a long-term relationship with their suppliers.

#### **Descriptive statistics: Supplier's Evaluation and Procurement Performance**

These were summarized responses on whether supplier's evaluation influences procurement performance of County Government of Kakamega. The descriptive results were presented in table 2.

**Table 2: Descriptive statistics; Supplier's Evaluation**

<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>	<b>S.D</b>
Firms identification criteria is always guided by the suppliers ability to meet buyers objectives	14 (18.2)	36 (46.7)	9 (11.7)	11 (14.3)	7 (9.1)	3.51	0.931
Evaluation of suppliers is identified based on their ability to achieve buyer objectives	13 (16.8)	32 (41.6)	12 (15.6)	9 (11.7)	11 (14.3)	3.36	0.934
The process of supplier evaluation is always determined by supplier ability to meet buyer objectives	11 (14.3)	39 (50.6)	7 (9.1)	10 (13.0)	10 (13.0)	3.49	0.923
suppliers evaluation are the ones who are satisfied by ISO standards	12 (15.5)	37 (48.1)	11 (14.3)	8 (10.4)	9 (11.7)	3.45	0.912
Suppliers evaluation criteria is based on supplier ISO certification	15 (19.5)	31 (40.2)	9 (11.7)	10 (13.0)	12 (15.6)	3.39	0.929
The process of supplier evaluation is always based on those suppliers who meet ISO certification for evaluation purpose	14 (18.2)	36 (46.8)	10 (13.0)	9 (11.7)	8 (10.3)	3.55	0.942
<b>Valid list wise=76</b>							
<b>Grand mean =3.46</b>							

From table 2, most respondents agreed (46.7%) and strongly agreed (18.2%) that firm evaluation criteria is always guided by suppliers ability to meet buyer objectives, which was also supported by 41.6% of respondents who agreed that the suppliers identification was based on ability to achieve buyer objectives. More so, 50.6% of respondents agreed that the supplier's evaluation relies on the process that meets the objectives of the buyer, while 48.1% of respondents also agreed that adoption of supplier evaluation was supported by similar sentiments of meeting the objective of the buyer. Further, 40.2% of respondents agreed and strongly agreed (19.5%) that the supplier evaluation criteria were based on ISO standards. Lastly, most respondents agreed (46.8%) and strongly agreed (18.2%) (supported by the grand mean = 3.46= 4 = agree) that generally, only suppliers who meet ISO

standards are evaluated. Hence supplier's evaluation has a relation with Procurement Performance. The importance of supplier evaluation is evident from its impact on firm performance and more specifically on final product attributes such as cost, design, manufacturability and quality. Supplier selection is largely seen as the most vital role of the procurement function since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Bruno, Esposito, Genovese & Passaro, 2012).

**Descriptive statistics: Supplier's Technical Capability and Procurement Performance**

These were summarized responses on whether Supplier's Technical Capability influences Procurement Performance of County Government of Kakamega. The descriptive results are presented in table 3.

**Table 3: Descriptive statistics; Supplier's Technical Capability**

Statement	5	4	3	2	1	Mean	S.D
Supplier identification is always guided by supplier product and service information	13 (16.9)	37 (48.1)	10 (13.0)	11 (14.3)	6 (7.7)	3.55	0.917
Selected suppliers are the ones who have right information about product or service	12 (15.6)	36 (46.8)	11 (14.3)	10 (13.0)	8 (10.3)	3.52	0.921
The process of supplier determination has been always based on the suppliers having the right product/service information	13 (16.9)	35 (45.5)	10 (13.0)	12 (15.5)	7 (9.1)	3.45	0.923
The selected supplier is the one having special capabilities that meets the technical requirement of the firm.	11 (14.3)	39 (50.6)	9 (11.7)	10 (13.0)	8 (10.4)	3.48	0.927
Supplier identification criteria ensure that only those suppliers with technical capability are selected.	12 (15.6)	32 (41.6)	12 (15.5)	10 (13.0)	11 (14.3)	3.38	0.929
The process of supplier determination has always identified those suppliers who meet the firms technical capability	11 (14.3)	39 (50.6)	11 (14.3)	7 (9.1)	9 (11.7)	3.49	0.918
<b>Valid list wise=76</b>							
<b>Grand mean =3.48</b>							

From table 3, most respondents agreed (48.1%) and strongly agreed (16.9%) that the supplier identification is always guided by supplier product service information, while 46.8% agreed that selected suppliers are the ones who have right information about product or service. More so, 45.5% and 16.9% of respondents agreed and

strongly agreed respectively that the process of supplier determination has been always based on supplier having proper product or service. 50.6% agreed that the supplier selected should be one having special capabilities that require technical capabilities. Furthermore, most respondents agreed (41.6%) and strongly agreed (15.6%) that Supplier

identification criteria ensure that only those suppliers with technical capability are selected. Lastly, most respondents agreed (50.6%) that generally, the process of supplier determination has always identified those suppliers who meet the firm's technical capability. This implies that Supplier's Technical Capability has a relation with Procurement Performance. Suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts Rezaei (Wang & Tavasszy, 2015). Especially, this is very important when the firm's strategy included development of a new product or technology or access to proprietary technology. These technical criteria insist company to shift into

the global market place. This factor has been measured on the basis of the importance of the following technical dimensions: compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, maintenance activities of suppliers and plant layout and material,(Routroy & Pradhan , 2013).

**Descriptive statistics: Supplier's Information Provision and Procurement Performance**

These were summarized responses on whether Supplier's Information Provision and Procurement influences Procurement Performance of County Government of Kakamega. The descriptive results were presented in table 4.

**Table 4: Descriptive statistics: Supplier's Information Provision**

Statement	5	4	3	2	1	Mean	Std.dev
Suppliers are identified based on their ability to estimate the demand in the market of the buyer	17 (22.1)	33 (42.9)	12 (15.6)	8 (10.4)	7 (9.1)	3.58	0.919
Supplier identification process is always determined by the suppliers ability to estimate future demand changes of the buyer	14 (18.2)	34 (44.2)	13 (16.9)	8 (10.4)	8 (10.4)	3.57	0.921
Supplier determination criteria ensures that only suppliers that are able to estimate future market changes in demand are identified	13 (16.9)	37 (48.1)	12 (15.6)	7 (9.1)	8 (10.4)	3.52	0.928
Suppliers selected are the ones able to meet current and future market demand	9 (11.7)	39 (50.6)	9 (11.7)	11 (14.3)	9 (11.7)	3.46	0.931
Supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm	13 (16.9)	34 (44.2)	11 (14.3)	9 (11.7)	10 (13.0)	3.43	0.927
Supplier identification criteria ensure that those selected meet the current and future demand of the buyer.	10(13.0)	41 (53.2)	10 (13.0)	9 (11.7)	7 (9.1)	3.49	0.914
<b>Valid list wise=76</b>							
<b>Grand mean =3.51</b>							

From table 4, most respondents agreed (42.9%) and strongly agreed (22.1%) Suppliers are identified based on their ability to estimate the demand in the market of the buyer. More so, 44.2% and 18.2% of respondents agreed and strongly agreed respectively that Supplier identification process is

always determined by the supplier's ability to estimate future demand changes of the buyer, while 48.1% also agreed that Supplier determination criteria ensures that only suppliers that are able to estimate future market changes in demand are identified. Further, most respondents

agreed (50.6%) that the Suppliers selected are the ones able to meet current and future market demand, while 44.2% and 16.9% agreed that Supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm. Lastly, most respondents agreed (53.2%) and strongly agreed (13.0%) that generally adoption of Supplier identification criteria ensure that those selected meet the current and future demand of the buyer. Hence Supplier's Information Provision has a relation with Procurement Performance.

Park and Lee (2014) noted the premise behind supply chain management is that the sharing of information and coordination of strategies among firms in a supply chain can reduce total logistics costs and enhance value delivered to the customer. The sharing of information with supply chain

partners is critical to the success of the supply chain. Judith (2017) described information sharing as frequent information updating among the chain members for effective supply chain management. In this dynamic and unpredictable world, an organization's capability to access the right information at the right time holds the key to sustenance and longevity. As the suppliers are important and integral part of supply chain management and supplier management an important part of any organization's strategies, having the right information on suppliers and supplier's performance becomes imperative (Kearney, 2013).

#### **Descriptive statistics: Procurement Performance**

These were summarized responses on Procurement Performance of County Government of Kakamega. The descriptive results were presented in table 5.

**Table 5: Descriptive statistics: Procurement Performance**

<b>Statement</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Mean</b>	<b>Std.dev</b>
There has been less complaints about procurement department in the recent years.	17 (22.1)	33 (42.9)	12 (15.6)	8 (10.4)	7 (9.1)	3.58	0.919
Expenditure costs has been on the decline since strict effecton of procurement procedures.	14 (18.2)	34 (44.2)	13 (16.9)	8 (10.4)	8 (10.4)	3.57	0.921
There exist joint buyer/seller trainings on public procurement procedures	13 (16.9)	37 (48.1)	12 (15.6)	7 (9.1)	8 (10.4)	3.52	0.928
Annual audit queries by audit general has been on the decline	9 (11.7)	39 (50.6)	9 (11.7)	11 (14.3)	9 (11.7)	3.46	0.931
There has been provision of quality services and goods without delay	13 (16.9)	34 (44.2)	11 (14.3)	9 (11.7)	10(13.0)	3.43	0.927
Generally, the County has significantly experienced financial growth in the recent years	10 (13.0)	41 (53.2)	10 (13.0)	9 (11.7)	7 (9.1)	3.49	0.914
<b>Valid list wise=76</b>							
<b>Grand mean =3.51</b>							

From table 5, most respondents agreed (42.9%) and strongly agreed (22.1%) that there has been less complaints about procurement department in the recent years. More so, 44.2% and 18.2% concluded that expenditure costs have been on the decline since strict effecton of procurement procedures, while 48.1% also agreed that there exist joint buyer/seller trainings on public procurement

procedures. Further, most respondents agreed (50.6%) that the Suppliers selected are the ones able to meet current and future market demand, while 44.2% and 16.9% agreed that annual audit queries by audit general has been on the decline. Lastly, most respondents agreed (53.2%) and strongly agreed (13.0%) that generally, the County has significantly experienced financial growth in the



recent. Developing countries, among them; Kenya has increased demand for better services; hence there is need to effectively manage the public supply chains. In the study by Diageo (2011) on procurement management, interrelationships between the partners in the supply chain needs to be managed to enhance performance, continuity and shared sense of value within the whole organization. In today's highly competitive environment, supply chain performance is very vital for the survival of firms because customers judge the performance of firms basing on their supply chain performance.

In the study by David and Geoffrey (2015) on procurement management, the function of

procurement in Kenya has been engrossed with enormous scandals and mortification, which have been blamed on pitiable handling of information relating to procurement hence leading to unwarranted corruption. Observation indicated that in today's dynamic globalized competitive business environment, hi-tech based service no longer becomes an addendum; rather it is essential for all kinds of organizations. It has emerged that it is crucial for organizations to present their clientele with favourable total cost solution and superior customer satisfaction with novel ideas and methods. The scholar persists, it is necessary to have a robust computerized procurement structure that is interlinked which eventually leads to improved competitiveness and reduced costs.

### Inferential Statistics

**Table 6: Correlations**

		Supplier's Identification	Supplier's Evaluation	Supplier's Technical Capability	Supplier's Provision of Information	Procurement Performance
Supplier's Identification	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	76				
Supplier's Evaluation	Pearson Correlation	.561**	1			
	Sig. (2-tailed)	.000				
	N	76	76			
Supplier's Technical Capability	Pearson Correlation	.554**	.557**	1		
	Sig. (2-tailed)	.000	.000			
	N	76	76	76		
Supplier's Provision of Information	Pearson Correlation	.545**	.556**	.521**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	76	76	76	76	
Procurement performance	Pearson Correlation	.825**	.753**	.676**	.718**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	76	76	76	76	76

\*\* . Correlation is significant at the 0.01 level (2-tailed).

In this study (table 6 on correlation analysis), the highest correlation coefficient between all pairs of independent variables (Supplier's Identification, Supplier's Evaluation, Supplier's Technical Capability and Supplier's Provision of Information) was 0.825,

which was below the threshold of 0.9, thus multi-collinearity assumption was checked and met.

### Multiple regression analysis

Multiple regression analysis was computed to assess the multivariate influence of the study's

independent variables (Supplier's Identification, Supplier's Evaluation, Suppliers Technical Capability and Supplier's Information Provision) on the dependent variable (Procurement Performance of

County Government of Kakamega; Kenya. This was after the compulsory assumptions of multiple regression analyses were checked and met. The multiple regression results were shown in table 7.

**Table 7: Multiple regression results**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.851 <sup>a</sup>	.724	.708	.65825	.724	47.177	4	72	.000

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.767	4	20.442	47.177	.000 <sup>a</sup>
	Residual	31.197	72	.433		
	Total	112.964	76			

a. Predictors: (Constant), Supplier's Identification, Supplier's Evaluation, Supplier's Technical Capability and Supplier's Information Provision.

b. Dependent Variable: Procurement performance

Multiple regression analysis in table 7 showed the multiple regression results of the combined influence of the study's independent variables (Supplier's Identification, Supplier's Evaluation, Supplier's Technical Capability and Supplier's Information Provision). The model's R squared ( $R^2$ ) is 0.724 which showed that the study explained 72.4% of variation in the Procurement Performance of County Government of Kakamega; Kenya, while other factors not in the conceptualized study model accounts for 27.6 %, hence, it is a good study model.

Furthermore, Analysis of Variance (ANOVA) showed the mean squares and F statistics significant ( $F = 47.177$ ; significant at  $p < .001$ ), thus confirming the fitness of the model and also implies that the study's independent variables (Supplier's Identification, Supplier's Evaluation, Supplier's Technical Capability and Supplier's Information Provision) have significant variations in their contributions to Procurement Performance of County Government of Kakamega ; Kenya.

Finally, the values of unstandardized regression coefficients with standard errors indicated that all the study's independent variables (Supplier's Identification  $\beta = 0.611$  (0.151) at  $p < 0.05$ , Supplier's Evaluation;  $\beta = 0.456$  (0.106) at  $p < 0.05$ ; Supplier's Technical Capability;  $\beta = 0.314$  (0.102) at  $p < 0.05$ , and Supplier's Information Provision;  $\beta = 0.425$  (0.138) at  $p < 0.05$ , significantly influenced Procurement Performance of County Government of Kakamega (dependent variable).

In this regard, the study's final multiple regression equation is;

$$(v) y = 0.610 + 0.611X_1 + 0.456X_2 + 0.315X_3 + 0.425X_4$$

Where;

y= Procurement Performance of County Government of Kakamega; Kenya

$X_1$ = Supplier's Identification

$X_2$ = Supplier's Evaluation

$X_3$ = Supplier's Technical Capability

$X_4$ = Supplier's Information Provision

**Table 8: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.610	.151		4.035	.000
Supplier's Identification	.611	.151	.550	4.070	.000
Supplier's Evaluation	.456	.106	.434	4.382	.000
Supplier's Technical Capability	.315	.102	.296	2.089	.040
Supplier's Information Provision	.425	.138	.400	3.080	.003

a. Dependent Variable: Procurement Performance

### Testing of study hypotheses

First, study hypothesis one ( $H_{01}$ ) stated that Supplier's Identification does not significantly influence Procurement Performance of County Government of Kakamega; Kenya. Multiple regression results indicated that supplier's identification significantly influence Procurement Performance of County Government of Kakamega ( $\beta = 0.568$  (0.079) at  $p < 0.05$ ). Hypothesis one was therefore rejected. The results indicated that that a single improvement in effective Supplier's Identification will lead to 0.611 unit increase in the Procurement Performance of County Government of Kakamega; Kenya.

Secondly, study hypothesis two ( $H_{02}$ ) stated that Supplier's Evaluation does not significantly influence procurement performance of County Government of Kakamega; Kenya. Multiple regression results indicated that supplier's evaluation significantly influence procurement performance of County Government of Kakamega ( $\beta = 0.456$  (0.106) at  $p < 0.05$ ). Hypothesis two was therefore rejected. The results indicated that that a single improvement in effective Supplier's Evaluation will lead to 0.456 unit increase in the Procurement Performance of County Government of Kakamega; Kenya.

Thirdly, study hypothesis three ( $H_{03}$ ) stated that supplier's technical capability does not significantly influence procurement performance of County Government of Kakamega; Kenya. Multiple

regression results indicated that supplier's technical capability significantly influence Procurement Performance of County Government of Kakamega ( $\beta = 0.315$  (0.102) at  $p < 0.05$ ). Hypothesis three was therefore rejected. The results indicated that that a single improvement in effective crowd funding systems would lead to 0.315 unit increase in the Procurement Performance of County Government of Kakamega; Kenya.

Fourthly, study hypothesis four ( $H_{04}$ ) stated that supplier's information provision does not significantly influence Procurement Performance of County Government of Kakamega; Kenya. Multiple regression results indicated that Supplier's Information significantly influence Procurement Performance of County Government of Kakamega; Kenya ( $\beta = 0.425$  (0.138) at  $p < 0.05$ ). Hypothesis four was therefore rejected. The results indicated that that a single improvement in effective Supplier's Information Provision will lead to 0.425 unit increase in the Procurement Performance of County Government of Kakamega; Kenya.

### CONCLUSIONS AND RECOMMENDATIONS

This study concluded that County Governments effectively utilizing supplier's identification practice attract professional suppliers that observe procurement norms for the benefit of County Governments in terms of efficiency and effectiveness of the systems. Hence supplier's identification has influence on Procurement

Practice of County Government of Kakamega County; Kenya

Secondly, County Government leaning on supplier's evaluation results into the right supplier being selected that could offer goods and services professionally and observe the protocol of value for money. Hence Supplier's Evaluation practice has influence on Procurement Performance of County Government of Kakamega; Kenya

Three, County Government applying Supplier's technical capability in the process of procurement functions leads to efficiency and effectiveness of handling managerial situations with flexibility putting into consideration that business environments are volatile. Hence Supplier's Technical Capability has influence on Procurement Performance of County Government of Kakamega; Kenya

Lastly, County Government involvement into supplier's information Provision leads to the flow of information among the parties hence improving on procurement functions. Through information exchange the supplier will convey the information on what could be offered and the buyer could respond with information of what the demand could be. Hence Supplier's Information Provision has influence on Procurement Performance in County Government of Kakamega ; Kenya

This study recommended that County Governments should embrace Supplier's Identification Practice since it would make the county systems have right professional suppliers that lift and improve the

procurement performance of the County Governments.

Secondly, supplier's evaluation should be adopted since it only through evaluation that the County Governments could determine the right supplier to link up with. Through evaluation the Counties could secure cost effective measures of dealing with the parties for the supply of goods and services; hence improving procurement performance.

Thirdly, supplier's technical capability plays a huge role in the procurement functions. Counties should embrace suppliers with technical understanding of being flexible with managerial skills that adjusts with respective environmental conditions of demand and supply; hence improving procurement performance.

Lastly, supplier's information provision should be embraced by Counties since feedback is key to all functions. It is through the information provision that the organizations can understand the conditions of demand and supply affecting the trading parties.

#### **Areas for further research**

First, a similar study can be done on private organizations using the same variables to establish the strength of relationship between supply development practices and procurement performance, putting into consideration the study dwelled on County Governments in Kenya.

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