



**EFFECT OF SUPPLIER MANAGEMENT ON PROCUREMENT PERFORMANCE IN SELECTED STATE CORPORATES IN KENYA**

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## EFFECT OF SUPPLIER MANAGEMENT ON PROCUREMENT PERFORMANCE IN SELECTED STATE CORPORATES IN KENYA

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### ABSTRACT

*The general objective of the study was to determine the effect of supplier management on procurement performance in selected state corporates in Kenya. As a review the research was to investigate procurement performance in selected state corporates in Kenya. This was by raising a two-staged model including procurement processes and the procurement performance. Descriptive survey design was used to describe and establish the relationship among the key study variables. The target population of this study was all the two hundred and thirty (230) state corporations as published through the executive order number 2 of 2013. Stratified sampling was used to determine the sample unit. Primary and secondary sources of data were collected using questionnaires. To determine the patterns revealed in the data collected regarding the selected variables, data analysis was guided by the aims and objectives of the research and the measurement of the data to be collected. The study findings established that organization assisted the supplier how best to manage the contracts awarded to them and that the organization set the deadline on when the contract should be delivered. The study established that the organization checks financial status of suppliers before selection. The study also established that the organization developed a cooperative relationship with appropriate suppliers and that the influence of the relationships strategies between a buyer and a seller depends on the benefits perceived by both parties. Study concluded that the supplier are assisted by the organization on how to best manage the contracts awarded to them and that the organization sets the deadline on when the contract should be delivered. The study recommended that the organization should maintain mutual relationships with suppliers and help the suppliers on how to manage their contracts so as to achieve highest quality. The study recommended that the selection of suppliers should be based on previous performance.*

**Key Words:** *Supplier Relationship Management, Supplier Integration, Supplier Selection, Supplier Base Managements, Procurement Performance*

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## INTRODUCTION

Sound procurement policies and practices are among the essential elements of good governance (World Bank, 2014). Otieno (2012) as cited by Kasisi, Mumo and Gitonga (2014) notes that irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. In some cases, tenders are awarded to firms either through single sourcing or manipulation of bids; and worse still, full payments have often been made for projects that fail to take off or are abandoned half way. Still in other cases, tenders are awarded to un-competitive bidders through irregular disqualification of the lower bidders.

The chartered Institute of procurement and supplies define Supplier management as the process of planning, controlling and monitoring the persons involved in obtaining and managing of products or services needed to operate a business or other type of organization (Akech, 2014). The purpose of suppliers' management procedures is to improve the performance of the procurement functions by keeping costs stable and maintaining the efficient use of resources to increase the profits and efficiency of the business or an organization.

Performance has been described as the degree of achievement of certain effort or undertaking. It relates to the prescribed goals or objectives which form the project parameters (Chitkaria, 2014). For organizations to change its focus and become more competitive, performance should be a key driver to improving quality of goods and services while its absence or use can act as a barrier to change and might lead to deterioration of the procurement performance. Although this sounds easy it is often difficult to develop measures that direct behavior or activity exactly as intended.

A state-owned corporation is an entity where the state has significant control through full, majority, or significant minority ownership. Defining

characteristics of a state corporation are their distinct legal form and operation in commercial affairs and activities. The State Corporation Act Cap 446 is an Act of parliament that makes provision for the establishment of state. In the Act, State Corporation is defined as a body established under the act of parliament. The president may or by order establish a state corporation and each of them shall have power necessary for performance of functions (State Corporation Act Cap 446).

The Kenya government forms state corporations to meet both commercial and social goals of the country. State corporations play the essential role of correcting market failure, exploiting social and political objectives, providing education, health, redistributing income or developing marginal areas (Njiru, 2015). Public sector remains a necessary and an on-going policy objective for many developing countries. In Kenya, this is being done to overhaul its administrative systems to better serve the needs of both government and citizens with improved delivery of public services to reduce poverty, improve livelihoods and sustain good governance (Kempe, 2012). The government of Kenya is committed to transform public service from process oriented, unnecessary bureaucratic practices, empowering speedy delivery of services by risk management and reviewing procurement management systems (Public Sector Reform and Institutional Capacity Building 2016).

State corporations of Kenya are divided into eight broad categories based on their mandate and functions. They consist of Financial Corporations, Commercial and Manufacturing Corporations, Regulatory Corporations, Public Universities, Training and Research Corporations, Tertiary Education and Training Corporations, Service Corporations and Regional Development Authorities (SCAC, 2010)

## Statement of the Problem

According to Kobia and Mohammed, (2012), the primary development goal for any country is to achieve broad-based, sustainable improvement in the standards of the quality of life for its citizens. The Public service and in particular the civil service plays an indispensable role in the effective delivery of public services that are key to the functioning of a state economy. When the delivery of services is constrained or becomes ineffective, it affects the quality of life of the people and nation's development process (Kobia and Mohammed). The government of Kenya currently regards its state parastatals transformation strategy as a dynamic and focused process designed to fundamentally reshape the Public Sector to accomplish its role in the achievement of Vision 2030 (Isahakia, 2013).

A study conducted by Amemba, Nyaboke and Mburu (2015) observed that in the past years, the public procurement system in Kenya has undergone significant developments and institutional strengthening. The system has moved from lack of a legal framework and regulations in the 1960s to a system regulated by Treasury Circulars in the 1970s, 1980s and 1990s, to the introduction of the Public Procurement and Disposal (PPD) Act in 2005, Public Procurement and Disposal Regulations of 2015, the Public Procurement and Disposal (Amendment) Regulations, 2015, The Public Procurement and Disposal (Public Private Partnerships) Regulations, 2009, The Public Procurement and Disposal (Preference and Reservations) Regulations, 2011 and The Public Procurement and Disposal (County Governments) Regulations, 2015.

Among the challenges that are facing the public procurement process in Kenya include; the fear for negative publicity has led to a growing emphasis on the legal aspects of the tendering process; selection of suppliers being influenced by political and management personnel; Increasing instances of suppliers not meeting the required specifications;

needs to foster relationships with its suppliers to ensure quality goods and services, timely and assured deliveries and information flow to assist both organizations in planning, need to upgrade the supplier's technical, quality, delivery and cost capabilities and to foster ongoing improvements.

There are peak moments when contracts are about to expire, but there is no continuous process to manage internal and supply market developments and opportunities and Procurement does not feel it is responsible for the operational procurement processes, there is no focus on managing the end-to-end process and closing the procurement loop. Therefore, it is against this backdrop that this study aimed to conduct a study to find out the effects supplier relationship management, supplier selection Management, supplier Integration Management and Supplier Performance management on Procurement Performance in Selected State Corporates in Kenya.

## Objectives of the Study

The general objective was to determine the effect of supplier management on procurement performance in selected state corporates in Kenya. The specific objectives were:-

- To determine the effect of supplier relationship management on procurement performance in selected state corporates in Kenya
- To determine the effects of supplier selection management on procurement performance in selected state corporates in Kenya.
- To establish the effects of supplier integration management on procurement performance in selected state corporates in Kenya.
- To establish the effects of supplier base management on procurement performance in selected state corporates in Kenya.

## Research Hypothesis

- **H0<sub>1</sub>:** Supplier relationship management has no significant effect on procurement performance of selected state corporates in Kenya.

- **H0<sub>2</sub>**: Supplier selection management has no significant effect on procurement performance of selected state corporates in Kenya.
- **H0<sub>3</sub>**: supplier integration management has no significant effect on procurement performance of selected state corporates in Kenya.
- **H0<sub>4</sub>**: Supplier base management has no significant effect on procurement performance of selected state corporates in Kenya.

## LITERATURE REVIEW

### Theoretical Framework

#### Agency Theory

According to Jensen and Mackling (2010) an agency relationship is a contract under which one or more persons (principals) engages another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the Agent. Agency theory is concerned with agency relationships. The two parties have an agency relationship when 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 2010).

Perhaps due to little theoretical direction and few standards to guide practice, to inform on concisely about what comprises cooperative procurement and its implications for public purchasing. Indeed, John Ramsay and Nigel Caldwell (2010) make a strong case that metaphors so often used can lead to misunderstanding the nature of interesting phenomenon. It is no different in public purchasing, as slight misconceptions about institutional goals and to whom one is accountable may in fact have significant organizational consequences. Agency theory generally assumes that actions and efforts are normally unverifiable, while outcomes are generally known and confirmable (Dixit, 2011). Consider that although the procurement official might believe that the actual purchase is an outcome, the purchase is merely considered an -action from the viewpoint of

the stakeholder for whom the purchase was made. In other words, the level of analysis is important in determining what behavior is an-action as opposed to an-outcome.

#### Supplier Relationship Theory

Different behavior of economic agents and consumers are influenced by the needs and possibilities of access to resources. In their efforts to have a certain influence, the economic actors are in different relationships, but in Pound's opinion, without always having a systematic and successful way. Therefore, as Moldovan (2010) says, a relationship is convenient while it works fine.

Achieving and maintaining connections in business to business relationships are the result of the efforts of partners. Strengthening of relationship gives safety to the parties while confidence expresses and devotion records. Thus supplier knows that he will have support if problems arise. However, in a combination of type SRM it may occur elements that do not go well, that may vitiate the relationship, destabilize even hopelessly compromise it.

#### Theory of Planned Behaviour

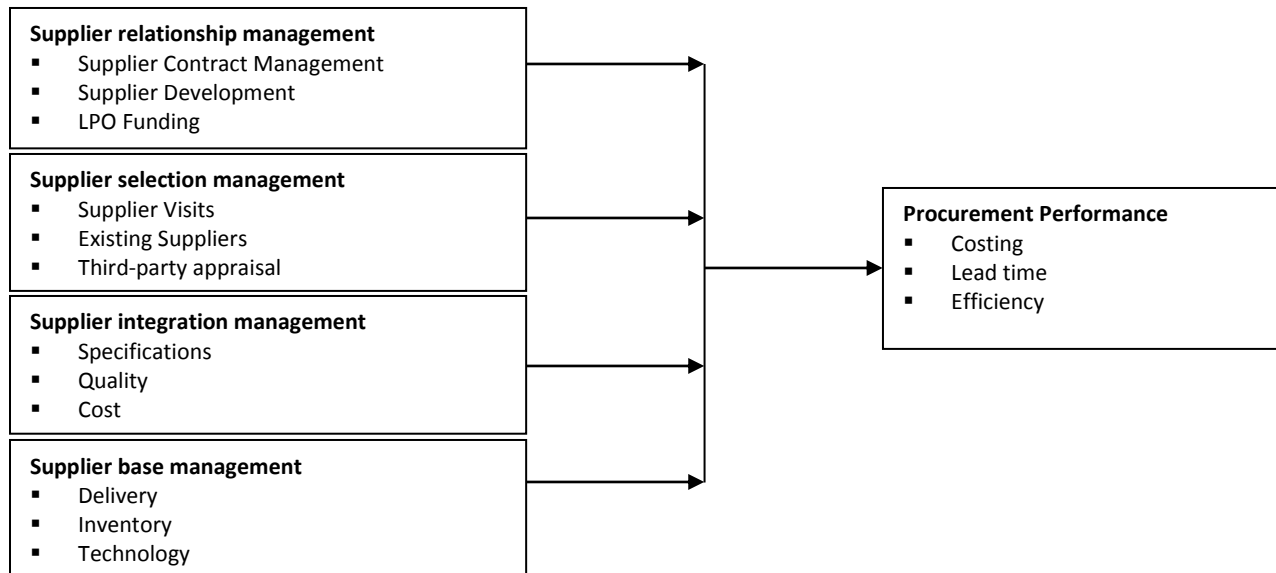
The Theory of Planned Behavior is the successor of the theory of reasoned action (Fishbein and Ajzen, 2011). A central factor in the TPB is the individual's intention to perform a given behavior. As Ajzen (2011) states, "the stronger the intention to engage in a behavior, the more likely will be its performance." An individual's intention to perform a given behavior is formed by three determinants: attitude, subjective norm, and perceived behavioral control. The relative importance of the determinants varies across situations (Ajzen 2011).

Attitude to certain behavior refers to the individual's global positive or negative evaluation of performing that behavior. Subjective norm refers to the individual's perceptions of general social pressure to perform a certain kind of behavior. The final determinant is called perceived behavioral control.

Perceived behavioral control refers to the perceived ease or difficulty of performing certain behavior. Applied to predicting the use of competency management, the TPB holds that the extent to which an individual has a positive or negative evaluation of competency management (attitude), the perception of social pressure to use competency management

(subjective norm), and the individual's confidence in his/her ability to use competency management (perceived behavioral control) will predict the intention to use and the actual use of competency management in supplier management (Gelada and Ivory, 2010).

### Conceptual Framework



### Independent Variables

### Dependent Variable

**Figure 1 Conceptual Framework**

Source: Author (2019)

### Empirical Review

Mandiyambira (2012) conducted a study titled managing supplier relationships to improve public procurement performance in State Universities in Zimbabwe. The research findings indicated that long term relationships with few suppliers came up to be the best way of managing supplier relationships for both long term and short term contracts for highly complex products and lowly complex products. The respondents cited that relationships with suppliers must continue even after the completion of a transaction an indication of the movement way from adversarial relationships. They cited that after sales services and support in terms of technical products was needed even after the completion of transaction.

Most respondents saw relationships as vehicles for cost reduction such as reduction of time spent and costs of searching for new suppliers. They also highlighted that quality could be achieved as a result of increased supplier involvement and joint problem solving. The respondents also cited that limited number of suppliers improves decentralization of purchasing activities to other departments as they will be obliged to deal with already evaluated and selected few suppliers. They highlighted that knowledge transfer is a function of whether the supplier is interested or not, some suppliers may lack the motive to do so and may resist use of their resources for the benefit of the buying organization.

Wagner (2015) conducted a study on Supplier development practices in an exploratory study. The study sought to provide a more differentiated view of supplier development activities currently applied by European firms. Firms are reluctant to develop suppliers. Two dimensions of direct and four dimensions of indirect supplier development were observed. Providing human and capital support to suppliers (i.e. two dimensions of direct supplier development) is strongly related to formal supplier evaluation, structures and processes for evaluating suppliers as well as communication (i.e. three dimensions of indirect supplier development).

Kirui and Wanyoike (2015) studied factors influencing procurement efficiency at the national hospital insurance fund in Kenya. The study sought to establish the influence of staff competence, quality management and information technology on procurement process efficiency. The target population of the study was all employees of the procurement department of National Hospital Insurance Fund totaling 100 employees. The study employed a descriptive research design using quantitative approaches. The study established that staff competence plays a significant influence on the procurement process efficiency. Further, the study established that information technology used in the organization and quality management systems greatly influence procurement process efficiency. The study recommended further enhancement of these factors and further research to ascertain the influence of other factors on procurement process efficiency.

Mutai and Okello (2016) conducted a study to find out the effects of Supplier Evaluation on Procurement Performance of Public Universities in Kenya. The findings of the study revealed that suppliers' quality commitment, suppliers' financial capacity and suppliers' competence have significant effect on performance of procurement of procurement function of public universities campuses in Kericho County.

Shiundu and Rotich (2014) conducted a study to find out the factors influencing efficiency in procurement systems among public institutions: a case of City County of Nairobi (CCN). The study adopted a Descriptive survey design where the target population for the study was procurement employees of the City County of Nairobi. From the findings, employee competence, information technology, records management and management styles influenced procurement efficiency at CCN. The study concluded that several developed countries have taken steps recently to revise their public procurement systems to improve their efficiency.

Musau (2015) conducted a study to find out the Environmental Factors Affecting Procurement Performance in County Governments: A Case of Uasin Gishu County. From the findings of the study it is apparent that market environment, political environment, legal environment and socioeconomic environment have an impact on procurement performance. Under market environment, maximization of competition, accomplishment of socioeconomic objectives and fulfillment of government needs are the market components influencing procurement performance.

Okong'o and Muturi (2017) conducted a study to find out factors affecting procurement performance in Public Institutions in Kenya: A survey of Public Institutions in Kisii County. The study employed a descriptive research design. The target population was 214 users in procurement department and suppliers of the public institutions in Kisii County. The findings of this study revealed that most public institutions have a procurement plan prepared annually and the political class is not supportive of procurement systems.

## **METHODOLOGY**

This study adopted a descriptive survey design as described by Cooper and Schindler (2012) as detailed description of events, situations and interactions

between people and things. The study targeted senior managers and middle managers of the selected state corporates in Kenya. This study analysed primary data. After data was obtained through questionnaires, it was prepared in readiness for analysis by editing, handling blank responses, coding, categorizing and keyed in using the SPSS statistical software for analysis. A multiple regression model was used to test the significance of the influence of the independent variables on the dependent variable. The multiple regression model for this study is as laid below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where:  $Y$  = Procurement performance (dependent variable)

$\beta_0$  = Constant

$\beta_1 \dots \beta_4$  = Coefficients of independent variables

$X_1$  = Supplier relationship management

$X_2$  = Supplier selection management

$X_3$  = Supplier integration management

$X_4$  = Supplier base management

$\mu$  = Error term

## RESULTS

### Descriptive Statistics

#### Effect of Supplier Relationship Management on Procurement Performance

With a view to establish the effect of supplier relationship management on procurement performance, the study sought the views of respondents on the extent to which the given aspects of supplier relationship management affect procurement performance as indicated by their level of agreement. A likert scale data was collected rating the extent of agreement in a scale of 1 to 5 where 1 is the strongly disagree whereas 5 is the strongly agree indicator. The mean score for each item was calculated and the findings are shown in table 1 below.

**Table 1: Supplier relationship management**

	Mean	Std. Deviation
The organization assists the supplier how best to manage the contracts awarded to them	4.46	.988
The organization sets the deadline on when the contract should be delivered	4.33	1.032
The organization has incorporated a bank to help fund suppliers L.P.O's	4.17	1.341
The organization has devised a plan of ensuring products are delivered on time	4.24	1.430
The quantity of goods to be delivered is clearly given on the procurement document	4.69	.836

From table 1 above, the respondents agreed that the organization assists the supplier how best to manage the contracts awarded to them as indicated by a mean of 4.46 and standard deviation of 0.988. It was supported by Janda *et al.*, (2015) who argue that by treating suppliers as allies and sharing strategic information with them, firms can achieve better lead times and quality, increase operating flexibility and establish long time cost reductions all of which could help these firms enhance value for the involved end user. The respondents also agreed that the

organization sets the deadline on when the contract should be delivered as indicated by a mean of 4.33 with a standard deviation of 1.032. The respondents agreed that the organization has incorporated a bank to help fund suppliers L.P.O's as indicated by a mean of 4.17 and standard deviation of 1.341. Also respondents agreed that the organization has devised a plan of ensuring products are delivered on time as indicated by a mean of 4.24 and standard deviation of 1.430. Finally, respondents agreed that the quantity of goods to be delivered is clearly given on the



procurement document.as indicated by a mean of 4.69 and a standard deviation of 0.836. The findings agree with a study by Mandiyambira (2012) who conducted a study titled managing supplier relationships to improve public procurement performance in State Universities in Zimbabwe and established that long term relationships with few suppliers came up to be the best way of managing supplier relationships for both long term and short

term contracts for highly complex products and lowly complex products.

### Effect of Supplier Selection Management on Procurement Performance

Data was collected through the likert scale measuring the level of agreement of the respondents with respect to the given aspects of supplier selection management. The results are as presented in Table 2 below.

**Table 2: Supplier selection management**

	Mean	Std. Deviation
The organization checks financial status of suppliers before selection	4.17	1.341
Surge capacity availability (supplier's capacity to increase delivery quantities within short lead times) is assessed before selection	4.41	1.301
Supplier ability to deliver quality supplies is ascertained before supplier selection	4.39	1.313
The suppliers' ability to meet specifications is checked prior to supplier selection	4.16	.538

As indicated in table 2, majority of the respondents agreed that the organization checked financial status of suppliers before selection as indicated by a mean of 4.17 and standard deviation of 1.341. The respondents also agreed that surge capacity availability (supplier's capacity to increase delivery quantities within short lead times) is assessed before selection as shown by a mean of 4.41 and a standard deviation of 1.301. Respondents agreed that supplier ability to deliver quality supplies is ascertained before supplier selection as indicated by a mean of 4.39 and standard deviation of 1.313. Finally, respondents agreed that the suppliers' ability to meet

specifications is checked prior to supplier selection as indicated by a mean of 4.16 with a standard deviation of 0.538. The findings are supported by Gonzalez and Quesada (2012) who found that supplier selection was the most influential supply management process for achieving product quality.

### Effect of Supplier Integration Management on Procurement Performance

The study sought to determine the effect of supplier integration management on procurement performance. The results are presented in table 3 below.

**Table 3: Supplier integration management**

	Mean	Std. Deviation
The organization develops a cooperative relationship with appropriate suppliers	4.17	.741
The influence of the relationships strategies between a buyer and a seller depends on the benefits perceived by both parties	4.39	1.313
Early supplier involvement in product development and provide visibility into accurate supplier information across departments	4.38	.509
Supplier information can be managed in context with the product structure to provide holistic views of your product	4.05	1.341

The results in table 3 indicated that majority of respondents agreed that the organization developed a cooperative relationship with appropriate suppliers as indicated by a mean of 4.17 with a standard deviation of 0.741. Respondents also agreed that the influence of the relationships strategies between a buyer and a seller depended on the benefits perceived by both parties as indicated by a mean of 4.39 with a standard deviation of 1.313. Respondents agreed that early supplier involvement in product development and provide visibility into accurate supplier information across departments as shown by a mean of 4.38 and standard deviation of 0.509. Finally, majority of the

**Table 4: Supplier base management**

	Mean	Std. Deviation
Suppliers are maintained based on their competence	4.39	.885
The organization adopts innovation and technology in maintaining supply base	4.07	.596
The organization promotes early supplier involvement in shaping the solution to the business need	3.42	.894
The organization suppliers are conscious of the given lead time	3.71	.682

The results in table 5 indicated that the suppliers were maintained based on their competence as indicated by a mean of 4.39 and standard deviation of 0.885. Respondents also showed that the organization adopts innovation and technology in maintaining supply base as indicated by a mean of 4.07 and standard deviation of 0.596. The findings indicated that the respondents agreed that the organization promoted early supplier involvement in shaping the solution to the business need as depicted by a mean of 3.42 and standard deviation of 0.894. Finally, majority of the respondents moderately

**Procurement Performance**

**Table 5: Procurement performance**

	Mean	Std. Deviation
The cost of procuring goods and services has been reduced	4.41	.901
The lead time has been reduced over time	4.24	.830
There is improved efficiency in the procurement function	4.80	.600

The results presented in table 5 indicated that respondents agreed that the cost of procuring goods

respondents agreed that supplier information can be managed in context with the product structure to provide holistic views of your product as indicated by a mean of 4.05 and standard deviation of 1.341. The findings are supported by Victor (2012) whose study noted that procurement expenditure could be minimized through implementation of effective procurement practices.

**Effect of Supplier Base Management on Procurement Performance**

Data was collected to establish the effect of supplier base management on procurement performance. The results are as presented in table 4 below.

agreed that the organization suppliers are conscious of the given lead time as shown by a mean of 3.71 and standard deviation of 0.682. The findings are supported by Lysons (2011) who observes that supplier optimization is done to determine the number of suppliers with whom the buyer will do business with. The aim was to leverage the buying power of an organization with the smallest number of suppliers who are consistent with security of supplies and the need for high quality goods and services competitive prices.

and services had been reduced as shown by a mean of 4.41 and standard deviation of 0.901. The

respondents also moderately agreed that the lead time had been reduced over time as indicated by a mean of 4.24 and standard deviation of 0.830. Finally, respondents agreed that there is improved efficiency in the procurement function as indicated by a mean of 4.80 and standard deviation of 0.600. The findings were consistent with Shiundu and Rotich (2014) who conducted a study to find out the factors influencing efficiency in procurement systems among public

institutions: A case of City County of Nairobi (CCN) and concluded that several developed countries have taken steps recently to revise their public procurement systems to improve their efficiency.

### Correlation Analysis

The study employed bivariate Pearson correlation to identify the strength and direction of linear relationship between the study variables. The results are shown in table 6 below.

**Table 6: Pearson correlation results**

		Supplier relationship	Supplier selection	Supplier integration	Supplier base	Procurement performance
Supplier relationship	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	118				
Supplier selection	Pearson Correlation	.566**	1			
	Sig. (2-tailed)	.000				
	N	118	118			
Supplier integration	Pearson Correlation	.396**	.449**	1		
	Sig. (2-tailed)	.000	.000			
	N	118	118	118		
Supplier base	Pearson Correlation	.274	.219	.099	1	
	Sig. (2-tailed)	.018	.002	.034		
	N	118	118	118	118	
Procurement performance	Pearson Correlation	.597**	.618**	.602**	.270	1
	Sig. (2-tailed)	.000	.000	.020	.043	
	N	118	118	118	118	118

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

### Regression Analysis

**Table 7: Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 <sup>a</sup>	.634	.602	1.831

a. Predictors: (Constant), Supplier relationship management, Supplier selection, Supplier integration, Supplier base management

**Table 8: Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	239.750	4	59.938	48.849	.001 <sup>b</sup>
	Residual	138.648	113	1.227		
	Total	378.398	117			

a. Dependent Variable: Procurement performance

b. Predictors: (Constant), Supplier relationship management, Supplier selection, Supplier integration, Supplier base management

**Table 9: Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.438	1.035		3.322	.000
Supplier relationship management	.349	.122	.655	2.861	.000
Supplier selection	.437	.216	.344	2.023	.009
Supplier integration	.401	.186	.177	2.156	.026
Supplier base management	.136	.068	.198	2.000	.037

a. Dependent Variable: Procurement performance

The regression equation was:

$$Y = 3.438 + 0.349X_1 + 0.437X_2 + 0.401X_3 + 0.136X_4$$

### Discussion of Key Findings and Hypothesis Test

The first objective of the study was to examine the effect of supplier relationship management on procurement performance. The correlation results indicated that there was a strong positive significant correlation between supplier relationship management and procurement performance ( $r = 0.597$ ,  $P < 0.05$ ). Regression results concluded that there was a positively significant effect on supplier relationship management and procurement performance as shown by  $\beta_1 = 0.349$ ,  $t = 2.861$ ,  $p < 0.05$ . Hypothesis testing conducted at 95% confidence level indicated a significance level of less than 0.05 hence Null Hypothesis was rejected. This implies that supplier relationship management has significant effect on procurement performance. The findings are consistent with Janda *et al.*, (2015) who argue that by treating suppliers as allies and sharing strategic information with them, firms can achieve better lead times and quality, increase operating

flexibility and establish long time cost reductions all of which could help these firms enhance value for the involved end user.

The second objective was to establish the effect on supplier selection management on procurement performance. Bivariate correlation results indicated a high correlation between supplier selection ( $r = 0.618$ ,  $P < 0.05$ ). Regression results on the variable indicated a positive and significant effect of procurement performance as indicated by  $\beta_2 = 0.437$ ,  $t = 2.023$ ,  $p < 0.05$ . Hypothesis testing conducted at 95% confidence level concluded that supplier selection management had a statistical significance on procurement performance hence the Null hypothesis was rejected. The findings were supported by Gonzalez and Quesada (2012) who found that supplier selection was the most influential supply management process for achieving product quality.

The study sought to establish the effect of supplier integration on procurement performance. Pearson correlation was conducted and the findings indicated that there was a moderate significant correlation between the variables ( $r = 0.602$ ,  $P < 0.05$ ). Regression results showed a weak positive significant effect of supplier integration on procurement performance as indicated by  $\beta_3 = 0.401$ ,  $t = 2.156$ ,  $p < 0.05$ . Hypothesis testing was also conducted at 95% confidence level and it showed a statistically significant relationship between the variables hence the Null hypothesis was rejected. Thus, supplier integration management had a positive effect on procurement performance. The findings are supported by Victor (2012) whose study noted that procurement expenditure could be minimized through implementation of effective procurement practices.

Finally, the study sought to investigate the effect of supplier base management on procurement

performance. The bivariate correlation results indicated a weak positive and significant correlation between supplier base management and procurement performance ( $r = 0.270$ ,  $P < 0.05$ ). Regression results indicated a positive and significant effect of supplier base management on procurement performance ( $\beta_4 = 0.136$ ,  $t = 2.00$ ,  $p < 0.05$ ). Hypothesis testing conducted at 95% confidence interval concluded that supplier base management had a statistically significant effect of procurement performance hence Null hypothesis was rejected. The findings are consistent with Lysons (2011) who observes that supplier optimization is done to determine the number of suppliers with whom the buyer will do business with. The aim is to leverage the buying power of an organization with the smallest number of suppliers who are consistent with security of supplies and the need for high quality goods and services competitive prices.

**Table 10: Hypothesis tests**

Hypothesis Statement	Test Model	Results
Supplier relationship management	$Y = \beta_1 X_1 + \epsilon$	$P < 0.05$ $H_{01}$ Rejected
Supplier selection management	$Y = \beta_2 X_2 + \epsilon$	$P < 0.05$ $H_{02}$ Rejected
Supplier integration management	$Y = \beta_3 X_3 + \epsilon$	$P < 0.05$ $H_{03}$ Rejected
Supplier base management	$Y = \beta_4 X_4 + \epsilon$	$P < 0.05$ $H_{04}$ Rejected

## CONCLUSIONS

On supplier relationship management, the study concludes that the supplier are assisted by the organization on how to best manage the contracts awarded to them and that the organization sets the deadline on when the contract should be delivered. The study concludes that the organization has incorporated a bank to help fund suppliers L.P.O's and that the organization has devised a plan of ensuring products are delivered on time. Finally, the study concludes that the quantity of goods to be delivered is clearly given on the procurement document.

On supplier selection management, the study concludes that the financial status of the supplier is scrutinized by the organization before selection

process is initiated. The study concludes that the surge capacity availability (supplier's capacity to increase delivery quantities within short lead times) is assessed before selection and that supplier ability to deliver quality supplies is ascertained before supplier selection. Finally, the study concludes that suppliers' ability to meet specifications is checked prior to supplier selection.

On supplier integration management, the study concludes that the organization develops a cooperative relationship with appropriate suppliers and that the influence of the relationships strategies between a buyer and a seller depends on the benefits perceived by both parties. The study concludes that the organization carries out early supplier involvement in product development and provides

visibility into accurate supplier information across departments and that supplier information can be managed in context with the product structure to provide holistic views of your product.

Finally, the study concludes that suppliers are maintained based on their competence and that the organization adopts innovation and technology in maintaining supply base. It was also concluded that the organization promotes early supplier involvement in shaping the solution to the business need and that the organization suppliers are conscious of the given lead time.

### **RECOMMENDATIONS**

The study recommended that the organization should maintain mutual relationships with suppliers and help the suppliers on how to manage their contracts so as to achieve highest quality. The study recommends that the organization should incorporate a bank to help fund suppliers L.P.O's and the procurement documents should be clear and simple so as to avoid confusion on part of suppliers.

The study recommended that the selection of suppliers should be based on previous performance. The organization should develop mechanisms to scrutinize supplier's capability to conform to contract specifications and quality.

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The study recommended that the state corporations should develop a cooperative relationship with appropriate suppliers and clearly stipulate the expected outcomes and benefits for such co-operation. The organizations should involve suppliers in the early stages of product development or contract specifications and should provide accurate information to suppliers to avoid miscommunications.

The study recommended that the organizations should maintain suppliers based on their competence. Also the organization should employ innovation and technology in maintaining supply base. The organization should promote early supplier involvement in shaping the solution to the business need.

### **Areas of Further Research**

Then study was done to determine the effect of supplier management on procurement performance in selected state corporates in Kenya. Further research should be conducted to establish if there is difference in the effects of supplier evaluation on procurement performance between physical product organizations and service organizations in the public sector.

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