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INFLUENCE OF SUPPLIER COMPETENCE ON THE PERFORMANCE OF STATE CORPORATIONS IN KENYA

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Abstract

Purpose: The purpose of this study was to determine the influence of supplier competence on the performance of state corporations in Kenya

Methodology: The study adopted cross-sectional survey design using both quantitative and qualitative approaches. The target population was all the 187 state corporations in Kenya. The study employed a census approach. Primary data was collected using questionnaires. A pilot study was conducted to measure the research instruments reliability and validity. Descriptive statistics were used aided by Statistical Packages for Social Sciences version 24 to compute percentages of respondents' answers. Inferential statistics using linear regression and correlation analysis were applied to assist examining relationship between the research variables. The results were presented using tables and graphs.

Results: The findings revealed that supplier competence explained 44.1 % of the total variations in performance of state corporations in Kenya. Further, the results indicated that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 111.904 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. In addition, the findings show that there is a positive and significant relationship between supplier competence and performance of state corporations in Kenya as supported by a p value of 0.000 and a beta coefficient of (0.903). This implies that an increase in supplier competence by 1 unit would increase the performance of state corporations by 0.903units.

Unique contribution to theory, practice and policy: Based on the findings, the study recommended that suppliers should develop competent technical abilities so as to provide high quality products or services. Some of the technical dimensions that suppliers should develop competence in include; compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, and maintenance activities of suppliers, plant layout and material. It's also recommended that state corporations in Kenya should check frequently if supplier organisation is abreast with the newer information technology developments as technology is very dynamic and changes

regularly as the technology that was used in the past is not the one we using now and it will not be the one we will use tomorrow.

Keywords: *supplier, competence, performance, state corporations*

1.0 INTRODUCTION

1.1 Background of the Study

This study sought to investigate the influence of supplier evaluation on the performance of state corporations in Kenya. In today's highly competitive environment, an effective supplier evaluation process is very important to the success of any organization (Liu & Hai, 2010). Selecting the right supplier is always a difficult task for the procurement manager. Suppliers have varied strengths and weaknesses, which require careful assessment by the purchasers before ranking, can be given to them. Therefore, every decision needs to be integrated by trading-off performances of different suppliers at each supply chain stage (Liu & Hai, 2010).

In a supply chain, collaboration between the company and the supplier is the most important connection of the distribution channel. The global competitive environment, make the organizations highly dependent on the success of the supplier selection process. The lack of coordination or error in this process may lead to excessive delay or poor customer services. In this sense, as it has direct influence on reducing the costs, on profitability and flexibility of a business, decisions taken by the purchasing department significantly affects the efficiency and effectiveness of the business (Chan & Kumar, 2014).

In order to survive in today's competitive global market and to respond to customer's demands companies have no choice but to offer high-quality products and services. Production of high-quality products in turn requires selection of the appropriate suppliers by these companies. As a result, most global firms devote a considerable amount of time and effort to evaluation and selection of the "right" suppliers (Sharon & Wang 2014). The decision makers often resort to various supplier selection models to guide them through the decision-making process. Thus managers are giving a good portion of resources to supplier evaluation especially the developed countries (Medlin, 2013).

In Kenya, the PPAD Act 2015 and procedure 2006 serves as a guide that provides guidelines and procurement procedure and supplier evaluation for public procurement entities to ensure judicious, economic and efficient use of state resources ensuring that public procurement is carried out in affair, transparent and non-discriminatory manner. Among other criteria, the Act 2005 states that tenderers and other suppliers should possess the necessary professional and technical qualifications and competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience in the procurement object and reputation; and the personnel to perform the procurement contract. In spite of all these, public institutions such as Universities have never realized the objective of supplier evaluation (PPOA, 2009).

1.2 Problem Statement

Despite the trend toward privatization over the past 20 years, state corporations (SCs) are still significant economic players (WB, 2014). Globally, SCs account for 20 percent of investment, 5 percent of employment, and up to 40 percent of output in some countries (Robinett, 2006; GoK, 2015). In developing countries, SCs produced about 15 percent of regional GDP in Africa (Kikeri & Kolo 2006).

In Kenya SCs have become a strong entity and useful engines to promote development (Njiru, 2008). The General Economic Services Sector which is a major contributor to GDP and employment creation in the economy in the last three years (2003-2005) contributed 20%, 21% and 23% respectively to GDP (ROK, 2013).

The performance of SCs however, has been a matter of on-going concern in an environment of resource scarcity. In 2011/12, eleven (11) commercial SCs made losses; this represents 21%, of all commercial oriented Government Owned Entities (RPTPR, 2013). Parliament Report (2015) indicated that SCs in Kenya have lost money to tune of Ksh. 2 billion in the financial year of 2015-2016 through fraudulent payment of suppliers. Transparent International (2013) that state corporations in Kenya are facing serious challenges especially in procurement where millions of shillings have been paid to unscrupulous supplier.

Despite the reforms and initiatives to reinvent the SCs in Kenya, many of them still perform poorly (RPTPR, 2013). Unlike in the past, SCs today are under strong pressure to improve their performance (WB, 2014). Research has found that supplier competence could help organizations to remain viable and competitive. Studies have been undertaken on supplier selection and evaluation. Schiele (2007), established that extensive supplier audits significantly influence a firm's performance level. Timmons (2010), studied how important the selection and evaluation of suppliers is in the management of purchasing and established that purchasing management has a significant bearing on the performance of organizations. It is therefore very important for SCs in Kenya to adopt best practices such as supplier comeptence to enable the SCs sector realize full potential (RPTPR, 2013). Also Despite the compelling link between firm performance and supplier competence, few studies have addressed it. Thus this study sought to investigate influence of supplier competence on the performance of state corporations in Kenya.

1.3 The study Objective

To determine the influence of supplier competence on the performance of state corporations in Kenya

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 The Lean Supplier Competence Model

This Model was developed by Marks (2007). It is through this model that a gap analysis can be charted and an action plan drawn to bridge the disparity in the organization. Suppliers according to this model are evaluated against the five categories supports the Lean techniques of Kaizen – continuous improvement. The Supplier Competency Model explains how organizations interact in the five areas of competency where there is varying degrees of performance ultimately to achieve lean organizational operations (Justus & Okello , 2016). Each category is broken down into specific "behaviors" or ways the company and the supplier interact with each other. These behaviors are rated from a"1" as "Less Lean" to a rating of a "5" as "More Lean." This measurement allows a company to determine placement of business based on common values and common strategic goals. Using this model, as the business philosophies of the company and the supply base draw together to eliminate waste, the natural result is a reduction of cost to the supply chain and to the ultimate customer (Xu, 2007). Thus theory was relevant to the study since it advocates for working together. It is particularly important for an organization in this case state corporates in that it attends to

foster lasting supplier relationship and those intending to build strategic partnership with suppliers. The sourcing organizations evaluate suppliers based on certain competence parameters and select the one that it would best work together with (Kitheka, 2013).

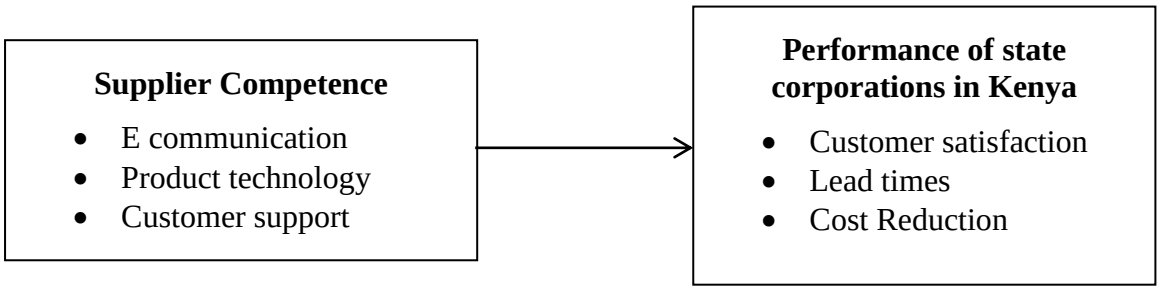
2.2 Empirical Review

Suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. 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(Thompson, 2008).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, and maintenance activities of suppliers, plant layout and material. The production facilities and ability of the supplier to increase its capacity should also be taken into account to Judge the best one. The potential production capability of each supplier should be analyzed to meet a specified Production plan and also to develop a new product according to the market demand (Harps, 2000).

According to Srinivasan (2013) an organization's collective competence is decisive for its success and competitiveness. Competence development must therefore be viewed in both an organizational and an individual perspective, so that competence can be developed and added in such a way as to strengthen both the individual and the organization as a whole. He also says Competence is nothing but the level of usage of technology and skills in putting a new product, shop or workforce in to place. The major methods to effectively evaluate the competence and its areas are as follows Product and industrial technology; Evaluation of supplier's total product knowledge, functional systems, Research and development and the industrial processes gives the customer organization inputs on the supplier's capability in technology (Otto & Kotzab, 2003).

The internal competence in Product / Process development also should be considered in evaluating the Technology. This evaluation determines how quick a supplier will turnaround a new product development with the effective use of his systems and machines in manufacturing. Customer support and communication; Evaluation of supplier's ability to provide service and support and working relations, presence and speed of response will help the evaluator ensure the customer focus of the supplier and finally Electronic communication; The suppliers' ability to use (send & receive) according to EDI-standard and implementation is also evaluated to ensure the supplier organization is abreast with the newer information technology developments (Thompson, 2008).

2.3 Conceptual Framework



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

3.0 METHODOLOGY OF THE STUDY

The study adopted cross-sectional survey design using both quantitative and qualitative approaches. The target population was all the 187 state corporations in Kenya. The study employed a census approach. Primary data was collected using questionnaires. A pilot study was conducted to measure the research instruments reliability and validity. Descriptive statistics were used aided by Statistical Packages for Social Sciences version 24 to compute percentages of respondents' answers. Inferential statistics using linear regression and correlation analysis were applied to assist examining relationship between the research variables. The results were presented using tables and graphs.

4.0 RESULTS AND DISCUSSIONS

4.1 Response Rate

The number of questionnaires that were administered was 187. A total of 144 questionnaires were properly filled and returned. This represented an overall successful response rate of 77% as shown on Table 1. This agrees with Babbie (2004) who asserted that return rates of 50% are acceptable to analyse and publish, 60% is good and 70% is very good. Based on these assertion 77% response rate is adequate for the study.

Table 1: Response Rate

Response	Frequency	Percent
Returned	144	77%
Unreturned	43	23%
Total	**187**	**100**

4.2 Demographic Information

4.2.1 Gender of the Respondents

The respondents were requested to indicate their gender. Results in table 2 reveal that majority of 59% of the respondents were male while 41% were female. This implies that there is male dominance in the state corporations and especially, in the procurement department. Nonetheless, the 1/3 gender rule has been observed since the composition of either gender exceeds 33.3% which is the required minimum threshold according to the constitution of Kenya (2010).

Table 2: Gender of the Respondents

Gender	Frequency	Percent (%)
Male	85	59
Female	59	41
Total	**144**	**100**

4.2.2 Age of the Respondents

The respondents were asked to indicate their age bracket. Results in table 3 reveal that 44.4% of the respondents were in the age bracket of 31-40 years, 32.6% aged between 41-50 years, 17.4% aged between 18-30 years while only 5.6% aged above 50 years. The results imply that over 70% of the respondents are aged between 31-50 years. This age bracket represents relatively young and energetic employees and this may translate into improved performance of the firms.

Table 3: Age of the Respondents

Age	Frequency	Percent (%)
18 – 30 years	25	17.4
31 – 40 years	64	44.4
41-50 years	47	32.6
50 years and above	8	5.6
Total	**144**	**100**

4.2.3 Respondents' Level of Education

The respondents were asked to indicate their highest level of education. Results in table 4 reveal that 48.6% of the respondents had attained bachelor's degree, 33.3% had post graduate degree, 14.6% had certificate/diploma while 3.5% had doctorate. The results imply that all the respondents were knowledgeable and that their education level was sufficient for effective performance. The results further imply that all the employees were in a position to understand the operations of the firms, especially, the firms' relationship with suppliers.

Table 4: Respondents' Level of Education

Education Level	Frequency	Percent (%)
Certificate/diploma	21	14.6
Bachelors	70	48.6
Post Graduate	48	33.3
Doctorate	5	3.5
Total	**144**	**100**

4.2.4 Respondent's years of Experience

The respondents were asked to indicate the number of years they had worked in the procurement department. Results in table 5 reveal that majority (61.8%) of the respondents had worked in the procurement department for a period of 1-10 years, 18.8% indicated less than one year, 16% indicated 11-20 years while 3.5% indicated above 20 years.

This implies that majority of the respondents have worked in the procurement department long enough and, therefore, possess adequate knowledge and skills of the supply chain process. The employees thus, have the potential to influence the performance of their firms.

Table 5: Respondent's years of Experience

Experience	Frequency	Percent (%)
less than one year	27	18.8
1 -10 years	89	61.8
11 – 20 years	23	16
Above 20 years	5	3.5
Total	**144**	**100**

4.2.5 Organizations' Period of Operation

The respondents were asked to indicate the number of years their organization has been in operation in Kenya. Results in table 6 reveal that majority (56.9%) of the respondents indicate more than 20 years, 16.7% indicated 16 to 20 years while 13.2% indicated 6 to 10 years and 11 to 15 years respectively. This implies that majority of the state corporations have been in operation long enough. As such, the firms are expected have sufficient information about their suppliers.

Table 6: Organizations' Period of Operation

Existence	Frequency	Percent
6 to 10 years	19	13.2
11 to 15 years	19	13.2
16 to 20 years	24	16.7
More than 20 years	82	56.9
Total	**144**	**100**

4.3 Descriptive Statistics

4.3.1 E-communication

The descriptive results on e-communication are presented in table 7. Results revealed that majority of the respondents who were 67.3% (47.2%+20.1%) agreed with the statement that suppliers' have the ability to use E-communication (send & receive) according to EDI-standard, 18.8% disagreed while 13.90% were neutral to the statement. Further, 57% of the respondents agreed that supplier organization is abreast with the newer information technology developments, however 43.1% of the respondents neither agreed not disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.64 which indicates that majority of the respondents agreed with the statement about e-communication. Additionally, the standard deviation of 0.98 indicates that the responses were varied. The results herein imply that suppliers apply e-communication.

Table 7: E-communication

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers' have the ability to use E-communication (send & receive) according to EDI-standard?	2.80%	16.00%	13.90%	47.20%	20.10%	3.66	1.06
Supplier organization is abreast with the newer information technology developments?	0.00%	12.50%	30.60%	40.30%	16.70%	3.61	0.91
Average						**3.64**	**0.98**

According to Otto and Kotzab (2003), the major methods to effectively evaluate the competence and its areas are as follows Product and industrial technology; Evaluation of supplier's total product knowledge, functional systems, research and development and the industrial processes gives the customer organization inputs on the supplier's capability in technology.

4.3.2 Product Technology

The descriptive results on product technology are presented in table 8. Results revealed that majority of the respondents who were 67.3% agreed with the statement that the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing, 18.80% were neutral while 13.9% disagreed with the statement. Further, 63.1% of the respondents agreed that the supplies have internal competence in Product / Process development, 23.60% were neutral while 13.1% disagreed with the statement. Ina addition, 70.8% of the respondents agreed that suppliers have total product knowledge, functional systems, Research and development and the industrial processes, 16.70% were neutral while 12.4% disagreed with the statement.

Using a five-point scale likert mean, the overall mean of the responses was 3.62 which indicates that majority of the respondents agreed with the statement about product technology. Additionally, the standard deviation of 0.95 indicates that the responses were varied. The results herein imply that suppliers apply product productivity.

Table 8: Product Technology

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Does the supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing?	0.00%	13.90%	18.80%	57.60%	9.70%	3.63	0.84
The supplies have internal competence in Product / Process development?	6.20%	6.90%	23.60%	56.20%	6.90%	3.51	0.95
Suppliers have total product knowledge, functional systems, Research and development and the industrial processes?	6.20%	6.20%	16.70%	50.00%	20.80%	3.73	1.06
Average						**3.62**	**0.95**

The study findings agree with those of Srinivasan (2013) an organization's collective competence is decisive for its success and competitiveness. Competence development must therefore be viewed in both an organizational and an individual perspective, so that competence can be developed and added in such a way as to strengthen both the individual and the organization as a whole.

4.3.3 Customer Support

The descriptive results on product technology are presented in table 9. The results revealed that majority of the respondents who were 54.9% agreed that suppliers never default the customer support agreement signed between them and your firm, 22.9% disagreed while 22.20% were neutral to the statement. Further, 60.5% of the respondents agreed that suppliers provide their customer support with competence, 26.40% were neutral while 13.2% did not agreed that suppliers provide their customer support with competence.

Using a five-point scale likert mean, the overall mean of the responses was 3.53 which indicates that majority of the respondents agreed with the statement about customer support. Additionally, the standard deviation of 0.98 indicates that the responses were varied. The results herein imply that suppliers provide customer support.

Table 9: Customer Support

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Suppliers never default the customer support agreement signed between them and your firm?	2.80%	20.10%	22.20%	41.70%	13.20%	3.42	1.04
Suppliers provide their customer support with competence?	0.00%	13.20%	26.40%	43.80%	16.70%	3.64	0.91
Average						**3.53**	**0.98**

The findings of this study relate to those of Thompson (2008) who postulated that suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. This implies that suppliers with high competence are likely to be more efficient and to deliver quality products and services.

Further, the respondents were asked to give their suggestions on the influence of supplier competence on performance of state corporations. Majority of the respondents observed that supplier competence leads to enhanced quality products and services. It also leads to awareness of current innovations in product and services and avoidance of process disruption.

4.4 Inferential Statistics

4.4.1 Correlation Analysis

The correlation analysis results in table 10 revealed that there was a positive and a strong significant association between supplier competence and performance of state corporations as supported by (r=0.664, p=0.000). This implied that both supplier comeptence and performance of state corporations change in the same direction.

Table 10: Correlation Matrix

		Performance	Supplier Competence
Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Supplier Competence	Pearson Correlation	.664**	1.000
	Sig. (2-tailed)	0.000	

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

4.4.2 Regression Analysis

The study sought to establish the relationship between supplier competence and performance of state corporations. An ordinary least square regression model was used. The results of the model summary are given in Table 11.

The findings revealed that supplier competence explained 44.1 % of the total variations in performance of state corporations in Kenya.

Table 11: Model Fitness

Indicator	Coefficient
R	0.664
R Square	**0.441**
Adjusted R Square	0.437
Std. Error of the Estimate	0.5877777

Table 12 below provides the results on the analysis of variance (ANOVA). The results indicate that the overall model was statistically significant as supported by a p value of 0.000. This was supported by an F statistic of 111.904 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. The results imply that supplier competence is a good predictor of firm performance.

Table 12: Analysis of Variance

Indicator	Sum of Squares	Df	Mean Square	F	Sig.
Regression	38.661	1	38.661	111.904	0.000
Residual	49.059	142	.345		
Total	87.719	143			

Table 13 presents the regression of coefficients results. The findings show that there is a positive and significant relationship between supplier competence and performance of state corporations in Kenya as supported by a p value of 0.000 and a beta coefficient of (0.903). This implies that an increase in supplier competence by 1 unit would increase the performance of state corporations by 0.903units.

Table 13: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	.559	.315	1.778	.078
Supplier Competence	.903	.085	10.578	.000

The specific model;

$Y= \beta_0+ \beta_2 X_2 +e$

State Corporations Performance = 0.559+0.903Supplier Competence

The findings of this study relate to those of Thompson (2008) who postulated that suppliers' need competent technical ability to provide high quality product or service, ensure future improvements in performance and promote successful development efforts. This implies that suppliers with high competence are likely to be more efficient and to deliver quality products and services.

5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

The objective of the study was to determine the influence of supplier competence on the performance of state corporations in Kenya. Descriptive results revealed that suppliers have the ability to use E-communication (send & receive) according to EDI-standard and they are abreast with the newer information technology developments. Further, majority of the respondents noted that a supplier quickly turnaround a new product development with the effective use of his systems and machines in manufacturing, has internal competence in Product/Process development and have total product knowledge, functional systems, Research and development and the industrial processes. In addition, majority of the respondents noted that suppliers never default the customer support agreement signed between them and your firm and also provide their customer support with competence.

Correlation analysis showed that supplier competence and performance of state corporations are positively and significantly associated. Regression analysis indicated that supplier competence has a positive and significant influence on performance of state corporations. The hypothesis results indicated that there is a positive significant relationship between supplier competence and performance of state corporations in Kenya.

5.2 Conclusions

The study concluded that supplier competence influenced the performance of state corporations in Kenya. This can be explained by the regression results which showed that the influence was positive and significant. Also, the study concluded that supplier in state corporations in Kenya are competent as they have the ability to use E-communication (send &receive) according to EDI-standard. Further suppliers can be able to turnaround a new product development and also they knowledge on their products, functional systems research and development and industrial processes. In addition the study concluded that organization really did not have information on whether their suppliers are abreast with the newer information technology developments.

5.3 Recommendations

Based on the findings, the study recommended that suppliers should develop competent technical abilities so as to provide high quality products or services. Some of the technical dimensions that suppliers should develop competence in include; compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, and maintenance activities of suppliers, plant layout and material. It's also recommended that state corporations in Kenya should check frequently if supplier organisation is abreast with the newer information technology developments as technology is very dynamic and changes regularly as the technology that was used in the past is not the one we using now and it will not be the one we will use tomorrow.

5.4 Areas of Further Research

This study looked at one criterion of evaluating suppliers namely supplier competence, but there are very many criteria's that can be explored further and their literature reviewed some include supplier consistency, supplier organisational culture, ways of communication by suppliers, supplier cleanliness in terms of eco-friendly products especially in regard to rules and regulation instituted by the law. The study recommends that a similar study should be conducted in the private sector for comparison purposes as this study was done on state corporations in Kenya.

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