

Influence of Supplier Relationship Attributes on Procurement Efficiency in State Corporations in Nakuru County, Kenya

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Abstract: The success of the procurement function has been attributed to the proper and effective and efficient management of the buyer supplier relationships. Therefore, the understanding of strategic relationships with key suppliers is a fundamental as it leads to value creations and also builds trust and commitment. However, state corporations continue to report inefficiencies in their procurement processes despite massive resources deployed and the variety of suppliers tendering in these corporations. The purpose of this study therefore was to establish the influence of supplier relationship attributes on procurement efficiency in state corporations in Nakuru County, Kenya. A descriptive survey design was employed since it permits gathering of data from the respondents in natural settings. The target population for this study comprised procurement staff in all state corporations located in Nakuru County, Kenya. Specifically, the target population was 96 procurement staff in state corporations. Purposive sampling was then used in targeting the said procurement staff. A self administered questionnaire based on a 5-point Likert scale was used in data collection. The data collected was analyzed using both descriptive (means and standard deviations) and inferential statistics (correlation and regression) with the aid of the Statistical Package for Social Sciences (SPSS) and the results presented in tables. From the findings, it was established that there was a very strong and positive correlation between supplier relationship attributes and procurement efficiency ($r = 0.691^{**}$). The r^2 value of 0.477 implies that 47.7% of the variations in procurement efficiency can be explained by the variations in supplier relationship attributes.

Key Terms: Relationship Attributes, Procurement Efficiency, State Corporation.

1. INTRODUCTION

The procurement function has received quite a lot of attention in the recent past and has been identified as a key driver of both operational as well as financial performance of numerous organizations (O'Brien, 2014). The success of the procurement function has been attributed to the proper and effective and efficient management of the buyer supplier relationships (Cheng, 2009). Procurement inefficiencies have been proven to bring about disruption and the common problems that affect the growth and development of organizations (Muller, 2010). Conversely, research has shown that the procurement function can be strengthened through the manifestation of long term mutually beneficial relationships between all the parties that are involved (O'Brien, 2014). Therefore, a key focus of minimizing inefficiencies in the procurement function is by understanding and leveraging supplier attributes. According to Groznik and Trkman (2012), there are five key supplier attributes that are crucial in achieving a sustainable supplier chain performance including operational factors, human resource factors, cultural factors and relationship factors. These attributes lead to a variety of benefits such as better understanding of the capabilities and performance levels of suppliers, reduced supply chain inefficiencies through waste elimination and cost reduction, proper mitigation of supply chain risks, and improved organizational competitiveness. Globally, scholars have attempted to link supplier attributes to a number of procurement performance measures. For example, Krause and Ellram (2007) found that performance evaluation was deemed a vital part of supplier development programs. In Britain, Wright (2009) found that effective supplier attributes allows managers

to position each contract systematically and determine whether such contracts are completed effectively and efficiently. In the Asian context, Jens (2014) looked at supplier attributes in the Thai automotive industry and established the importance of supplier attributes in enhancing procurement process in the industry. Locally, according to Kipchilat (2006), an efficient public procurement system allows suppliers to provide satisfactory quality, service and price within a timely delivery schedule. Therefore, a better understanding of supplier relationship attributes would play a significant role in minimizing procurement process inefficiencies.

1. Statement of The Problem

Procurement efficiency is the backbone of an organization success since it contributes to competitive purchase and acquisition of quality goods that puts the organization products or services in the competitive edge in the market. However, on several occasions, poor procurement performance has caused financial loss due to delivery of poor quality work materials, loss of value for money and inflated prices. Poor procurement performance has also been linked to decrease in profitability of a number of organizations. Similarly, studies have reported that low procurement efficiency is a major hindrance to organizations growth since it causes the delay of delivery, increase of defects, delivery of low quality goods or non-delivery at all. Furthermore, various scholars (Waithaka & Waiganjo, 2015; Wangui, 2014) attribute low procurement efficiency in state corporations in Kenya to incompetent staff, traditional procurement procedures, and inability to embrace e-procurement, poor coordination of procurement activities, lack of quality assurance policies and lack of proper regulations. Similarly studies report that the obligation for invitation to tender requires procuring entities to uphold transparency of the procedures used in awarding contracts however, supplier canvassing, favoritism and corruption is rampant in Kenya's public procurement (Waithaka & Waiganjo, 2015). As reported by the Auditor General Report 2017, millions of shillings are wasted due to inefficient and ineffective procurement structures, policies and procedures as well as failure to impose sanctions for violation of procurement rules thus resulting in poor service delivery. Notably, most studies (Wangui; 2014; Kingoo, 2010) in Kenya vaguely mention supplier attributes as a sub-function of procurement procedures but have not critically interrogated their effect on the efficiency and effectiveness of the procurement process. Furthermore, studies have found that approximately 60% of supplier chain disruptions which has led to about 3% drop in a firm's supplier chain performance can be attributed to supplier attributes (Mogikoyo, Magutu & Dolo, 2017). Despite the fact that a number of studies have been carried out in supply chain systems and operations of state corporations worldwide and locally; there is no definite study that has been directed towards the examination of supplier relationship attributes and procurement efficiency. It is against this background that the study seeks to establish the effect of supplier relationship attributes on procurement process efficiency in state corporations in Nakuru County, Kenya.

2. Objective of the Study

The general objective of the study was to establish the influence of supplier relationship attributes on procurement efficiency in state corporations in Nakuru County, Kenya.

2. LITERATURE REVIEW

According to Pullins, Reid and Plank (2004) in their study on gender issues in buyer-seller relationships; individual firms do not work in isolation, but are rather inclined to work with one another as partners. Therefore, it is important for companies to look for suppliers that satisfy their needs. Their study noted that most of the company supplier relationships are built mainly on the price agreement between the supplier and the firm. Such relationships often do not give room for cost reduction in the supply chain. Their study concluded that the development of supplier relationships should largely be premised on personal, production, or symbolic networking, which tends to allow room for risk sharing, information sharing, and enjoyment of mutual benefits and coordination of plans between parties in the supply chain. According to Scannell, Vickery and Dröge (2000), for most firms today, establishing the act of establishing strong and mutual beneficial supplier-relationships is essential in improving overall supply chain performance, spurring greater cost efficiency and paving way for business growth and development. Some ways of improving supplier relationship include rewarding best suppliers, and making regular and prompt payment to suppliers. Key benefits include elimination of unnecessary costs; increased efficiency; mitigation of price volatility along the supply chain and continuous improvement.

According to Mogikoyo, Magutu and Dolo (2017), in their study on the relationship between supplier evaluation attributes and supply chain performance in 20 commercial state corporations found that commercial state corporations

evaluate financial health, financial dependency, turnover and profitability levels when evaluating their suppliers. Their study also found that 55.6 % of the variations in supply chain performance can be explained by variations in supplier evaluation attributes. They concluded that commercial state corporations should pay a lot of attention to the suppliers' financial health and autonomy, the supplier's physical security and the supplier's supply chain experience, a perfect cultural fit, training programs and the quality of the human resource management policies, and beneficial supplier-relationships and cost efficiency in an effort to improve their supply chain performance. They however recommend further analysis of supplier evaluation attributes including aspects of automation attributes and service delivery attributes and their influence on supply chain performance.

According to Wangui (2014), in their study which sought to establish the strategic supplier related factors affecting the performance of the procurement function in the service industry, financial stability of suppliers; past performance and reliability of suppliers have a significant effect on performance of procurement function. The study attempted to establish the effect of financial stability, past performance and reliability of suppliers on the performance of the procurement function. The study used a case research design. Data was collected using a questionnaire with both open and close ended questions. The study recommended that suppliers should be evaluated to establish their financial stability, their past performance and reliability before awarding them with contracts to supply goods or services. Despite the fact that a number of studies have been carried out on the operations of commercial state corporations worldwide that there are a number of studies that have focused on the supply chain systems of public corporations; no definite study has been directed towards the examination of supplier attributes. The vast majority of studies have emphasized a distinct set of dependent variables such as supply chain governance, supply chain management practices, supply chain relationship management, and risk management practices (Mburu *et al.*, 2015; Nyamasege and Biraori, 2015; Winny and Wagoki, 2012). This study will thus attempt to bridge the literature gap by providing an empirical link between supplier relationship attributes and procurement efficiency.

3. RESEARCH METHODOLOGY

The study adopted a survey design since it permits gathering of data from the respondents in natural settings. Survey designs result in a description of the data, whether in words, pictures, charts, or tables, and whether the data analysis shows statistical relationships or is merely descriptive. The target population for this study comprised 96 procurement staff in all state corporations and their regional offices located within Nakuru County, Kenya. The study targets procurement staff since they are involved in the procurement processes in their organizations. Since the target population of 96 procurement staff was fairly small, the study undertook a census approach and thus all the 96 staff formed the sample. Data was collected using questionnaires. Questionnaires were seen as appropriate as they allow to be collected in a quick and efficient manner. Before embarking on data collection, permission to collect data was sought from the National Council for Science, Technology and innovation (NACOSTI). The researcher sought clearance from both the university and the relevant state corporations. The instrument was piloted to corporations in Kericho County evaluate its validity and reliability of the instruments on 12 respondents who did not form part of the sample. The data collected from the questionnaires was analyzed using both descriptive (means and standard deviations) and inferential statistics (correlation and regression) with Statistical Package for Social Sciences (SPSS) and the results presented in tables..

4. RESEARCH FINDINGS AND DISCUSSIONS

1. Demographic Information

According to the findings, majority of the respondents were male (63.3%) while the female respondents were 36.7%. The study attributed this trend to the existing gender gap in both the public and private sectors in Kenya. Further, majority of the respondents were of the age group 41 – 50 years (48.1%) while the least age group was below 21 years (5.1%). This was attributed to the general stagnation of the public sectors in creating new employment opportunities. It was also established that majority of the respondents (58.2%) had a degree level qualification. Further, over 73% of the respondents had either a bachelors or masters degree. This trend was attributed to the professionalization of the procurement industry which has compelled most staff in procurement departments to seek higher educational qualifications. In terms of working experience, most of the respondents (46.8%) had between 8 to 10 years working experience. The study attributed this trend to the fact that in the past decade new employment opportunities have stagnated. Furthermore, the longer working experience implied that the respondents are knowledgeable about the various procurement issues the study investigated.

2. *Supplier Relationship Attributes and Procurement Efficiency*

The researcher sought to establish the influence of supplier relationship attributes on procurement efficiency in state corporations in Nakuru County, Kenya and the findings are as shown in Table 1.

Table 1: Supplier Relationship Attributes and Procurement Efficiency

	SD	D	N	A	SA	Mean	Std Dev
Our corporation considers the supplier's extent of information sharing before awarding tenders	3(3.8%)	5(6.3%)	16(20.3%)	31(39.2%)	24(30.4%)	3.86	1.047
We always consider supplier's continuous improvement initiatives before awarding tenders.	2(2.5%)	3(3.8%)	6(7.6%)	37(46.8%)	31(39.2%)	4.16	.912
Our management awards tenders to suppliers based primarily on their accommodative relationship	2(2.5%)	11(13.9%)	11(13.9%)	34(43.0%)	21(26.6%)	3.77	1.074
We usually consider the supplier's price agreement and risk sharing before awarding tenders.	0(0%)	6(7.6%)	15(19.0%)	40(50.6%)	18(22.8%)	3.89	.847
The corporation considers the supplier's mutual benefits and coordination of plans before considering them for tenders	0(0%)	0(0%)	12(15.2%)	50(63.3%)	17(21.5%)	4.06	.606
The supplier relationship attributes plays a key role in our supplier retention policy	0(0%)	6(7.6%)	10(12.7%)	54(68.4%)	9(11.4%)	3.84	.724

From the findings, majority of the respondents (69.6%) agreed that their corporation considers the supplier's extent of information sharing before awarding tenders while 10.1% disagreed. 86% agreed that they always consider supplier's continuous improvement initiatives before awarding tenders to them while 6.3% disagreed. 69.6% agreed that management awards tenders to suppliers based primarily on their accommodative relationship with the firm while 6.3% disagreed. 73.4% agreed that they usually consider the supplier's price agreement and risk sharing before awarding tenders to suppliers while only 7.6% disagreed. 84.8% agreed that their corporation considers the supplier's mutual benefits and coordination of plans before considering them for tenders. Finally, 63.8% agreed that the supplier relationship attributes plays a key role in their supplier retention policy while 7.6% disagreed. Furthermore, it was established that majority of the respondents agreed that their corporation considers the supplier's extent of information sharing before awarding tenders (mean=3.86), that they always consider supplier's continuous improvement initiatives before awarding tenders to them (mean=4.16), that management awards tenders to suppliers based primarily on their accommodative relationship (mean=3.77), that they usually consider the supplier's price agreement and risk sharing before awarding tenders (mean=3.89), that corporation considers the supplier's mutual benefits and coordination of plans before considering them for tenders (mean=4.06) and that the supplier relationship attributes plays a key role in our supplier retention policy (mean=3.84).

3. *Measurement of Procurement Efficiency*

The findings in this section involve the measurement of the dependent variable and the findings are as shown in Table 2. From the findings, 79.7% agreed that their ordered deliveries are done on time while 8.8% disagreed. 83.5% agreed that they always optimize their procurement resources which enabled efficient resource utilization while 8.9% disagreed. 91.1% agreed that they strictly adhered to order planning schedules based on predetermined timelines. 72.2% agreed that in the past few years they had experienced minimum number of faults in supplier documentation while 20.2% disagreed. 86.1% agreed that they suppliers take very short time to respond to queries and complaints. 70.9% agreed that the order cycle time and lead times are lower compared to other state corporation while 13.9% disagreed. 91.1% agreed that procurement process is structured in a way that we get value for money from our suppliers while 5.1% disagreed. Finally,

82.3% agreed that they had ensured that suppliers abide by requisite codes of conduct and practice, accountability and transparency while only 3.8% disagreed.

Table 2: Measurement of Procurement Efficiency

	SD	D	N	A	SA	Mean	Std Dev
In my parastatal, ordered deliveries by our suppliers are done on time	2(2.5%)	5(6.3%)	9(11.4%)	41(51.9%)	22 (27.8%)	3.96	.940
We always optimize our procurement resources which enables efficient resource utilization	0(0%)	7 (8.9%)	6 (7.6%)	49 (62.0%)	17 (21.5%)	3.96	.808
We always strictly adhere to order planning schedules based on predetermined timelines	0(0%)	0(0%)	7(23.8%)	64 (81.0%)	8(10.1%)	4.01	.438
In the past few years we have experienced minimum number of faults in supplier documentation	5(6.3%)	11(13.9%)	6 (7.6%)	36 (45.6%)	21 (26.6%)	3.72	1.187
Our suppliers take very short time to respond to our queries and complaints	0(0%)	0(0%)	11(13.9%)	52(65.8%)	16(20.3%)	4.06	.585
The order cycle time and lead times are lower compared to other state corporation	0(0%)	11 (13.9%)	12(15.2%)	40 (50.6%)	16 (20.3%)	3.77	.933
Our procurement process is structured in a way that we get value for money	0(0%)	4 (5.1%)	3(3.8%)	67 (84.8%)	5 (6.3%)	3.92	.549
We have ensured that suppliers abide by requisite codes of conduct and practice, accountability and transparency	0(0%)	3 (3.8%)	11(13.9%)	58 (73.4%)	7(8.9%)	3.87	.607

Furthermore, majority of the respondents agreed that ordered deliveries are done on time (mean=3.96), that they always optimize their procurement resources which enables efficient resource utilization (mean=3.96), that they always strictly adhere to order planning schedules based on predetermined timelines (mean=4.01), that in the past few years they had experienced minimum number of faults in supplier documentation (mean=3.72), that suppliers take very short time to respond to queries and complaints (mean=4.06), that the order cycle time and lead times were lower compared to other state corporation (mean=3.77), that their procurement process was structured in a way that they get value for money from their suppliers (mean=3.92) and that they had ensured that suppliers abide by requisite codes of conduct and practice, accountability and transparency (mean=3.87).

4. Correlation Analysis

The findings of the correlation analysis were as shown in Table 3.

Table 3: Relationship Attributes and Procurement Efficiency

	Relationship Attributes
Pearson Correlation	.691**
Procurement Efficiency Sig. (2-tailed)	.000
N	79

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

From the correlation analysis, it was established that there was a very strong and positive correlation between relationship attributes and procurement efficiency ($r = 0.691^{**}$, .000). Since the correlation was very strong and positive in nature, the study concluded that relationship attributes have significant influence on procurement efficiency.

5. Regression Analysis

The study carried out a regression analysis to establish the influence of supplier relationship attributes on procurement efficiency and the summary is depicted in Table 4 and Table 5.

Table 4: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691a	.477	.470	.23129

a. Predictors: (Constant), Supplier Relationship Attributes

Table 5: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	SE	Beta	t	p
Constant	2.522	.168		15.033	.000
Supplier Relationship Attributes	.354	.042	.691	8.385	.000

Dependent Variable: Procurement Efficiency

The r^2 value of 0.477 implies that 47.7% of the variations in procurement efficiency can be explained by the variations in independent variable. This therefore means that other factors not studied in this study contribute 52.3% of procurement efficiency. From the model, holding the independent variable constant, procurement efficiency would increase by 2.522. It was established further that a unit increase in supplier relationship attributes would cause an increase in procurement efficiency by a factor of 0.354. The un-standardized beta coefficients in Table 5 were then used to obtain the overall relationship of the independent variable and the dependent variable and model was formulated as:

$$\text{Procurement Efficiency} = 2.522 + 0.354 \text{Supplier Relationship Attributes}$$

5. CONCLUSIONS

The study concluded that state corporations should consider the supplier's extent of information sharing and supplier's continuous improvement initiatives before awarding tenders to them. They should also award tenders to suppliers based primarily on their accommodative relationship, consider the supplier's price agreement and risk sharing before awarding tenders, consider the supplier's mutual benefits and coordination of plans before considering them for tenders and ensure supplier relationship attributes plays a key role in supplier retention policy. It was further concluded that there was a very strong and positive correlation between relationship attributes and procurement efficiency and thus it was concluded high levels of procurement efficiency can be associated with supply relationship attributes.

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