

Role of Strategic Sourcing Process on Procurement Performance in Government Ministries in Kenya

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Abstract: Strategic sourcing is growing at a rapid rate throughout the world because organizations view it as a way of achieving strategic goals, improve customer satisfaction and provide efficiency and effectiveness in services, goods or works offered. The purpose of the study was to examine the influence of strategic sourcing on procurement performance in government ministries in Kenya, a case of the ministry of industrialization and enterprise development with the aim of making recommendations on the proper use of strategic sourcing practices. This research study adopted a descriptive research design approach. The researcher preferred this method because it allows an in-depth study of the subject. A census was conducted where all the 105 staff in procurement department was issued with questionnaires. Data were collected using self-administered questionnaires. The data collected was analyzed using descriptive and inferential statistics. Multiple regression models were used to show the relationship between the dependent variable and the independent variables. The quantitative data generated was keyed in and analyzed by use of Statistical Package for Social Sciences (SPSS) version 22 to generate information which was presented using tables, charts, frequencies, and percentages. The response rate of the study was 94.44%. The findings of the study indicated that outsourcing, information technology integration, supplier relationship management and supply base rationalization have a positive relationship with procurement performance in the ministry of industrialization and enterprise development.

Keywords: Organizational Policy, Procurement Performance, Strategic Sourcing, Supplier Relationship Management, Supply Base Rationalization.

1. INTRODUCTION

Strategic sourcing has become an important element in the competitive strategies of firms faced with the challenge of shaving their costs and increasing efficiency without compromising quality and customer service [12]. In today's dynamic environment, strategic relationship with suppliers is a key ingredient to the success of procurement [3] As organizations strive to focus on core competencies and becoming more flexible, they reduce their ownership of raw materials sources and distribution channels. These functions are outsourced to other entities that can perform the activities better or more cost effectively. The effect is to increase the number of organizations involved in satisfying customer demand while reducing management control of daily logistics operations. Less control and more supply chain partners led to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and the velocity of inventory movement [4]. Organizations are operating in an environment characterized by countless economic and political disruptions to their sources of supplies and services. In this turbulent marketplace, these organizations must continually monitor their competitive position as well as their internally controllable processes, especially the procurement process [5]. One of the challenges of sourcing is inefficient cost cutting, lack of transparency even during negotiations, and hence competitive pricing will only have a limited impact on savings [13]. As a result, public sector buyers will be forced to revisit

procurement practices and built an efficient and agile supply chain. Strategic sourcing has a lot of effects on organizational productivity has been neglected by many scholars and researchers. This study, therefore, is aimed at investigating the influence of strategic sourcing on procurement performance in government ministries specifically the ministry of industrialization and enterprise development. From the previous literature, it justifies that public procurement in Kenya has critically analyzed the role of strategic sourcing in procurement function and performance.

2. EMPIRICAL REVIEW

There are a few studies illustrating how procurement performance is affected by strategic sourcing, [2] observed that government ministries are faced with the challenge of meeting high procurement performance targets while using meager resources to deliver effective and efficient services demanded by the public at large. According to [12], effective service delivery policy is touted as one of the key strategies for the reduction of poverty and associated problems. In Kenya, the delivery of public services has not been entirely successful or effective. This is manifested by the poor road network, incessant water unavailability, inadequate health facilities and personnel as well as falling education standards.

Supplier relationship management is the process that defines how a company interacts with its suppliers. As the name suggests, this is a mirror image of customer relationship management (CRM). Just as a company needs to develop relationships with its customers, it also needs to foster relationships with its suppliers. The desired outcome is a win-win relationship where both parties benefit. According to [6] the descriptions of relationships are relatively abstract and vary with the discipline from which they are being researched (strategy, economics or psychology). Understanding the actions and processes of your suppliers is a basis for starting to develop your relationships with them. Supply market intelligence is one the factors that need to be accounted. It explains the mutual competition between competing organizations in the market. With the help of detailed supply market understanding, the factors that affect competitive advantage can be identified [14].

ICT is an enabler for information sharing which organizations in the procurement system can use for eliminating bloated inventory levels caused by the cumulative effect of poor information cascading up through an SC. Process integration can enhance procurement performance. ICT provides new ways to store, process, distribute and exchange key information with customers and suppliers in the entire procurement system. ICT contributes to improved communications patterns, increased demand for coordination of joint activities and new organizational structures through its ability to store transmit and process information and speed up inter-organizational activities. Understanding the actions and processes of your suppliers is a basis for starting to develop your relationships with them. Supply market intelligence is one the factors that need to be accounted. It explains the mutual competition between competing organizations in the market. With the help of detailed supply market understanding, the factors that affect competitive advantage can be identified [14].

One of the earliest papers in supply base leveraging is attributed to [7] where they opine that competing in the 21st century will require firms to rely increasingly on their suppliers. For a firm to deliver maximum value to its customers, it must receive maximum value from all its suppliers in the supply chain. Commercial firms are increasingly finding out that, working in isolation will not lead to lowest costs, best quality, or shortest cycle times in their firms if their suppliers do not get involved. Intel, for instance, concluded that it could not improve the quality of its products if it did not improve the quality of its suppliers. Sun concluded that to be more responsive to its customers its suppliers needed to be more responsive. There is, therefore, need for supplier rationalization. Rationalizing the supply base equally leads to buying from world class suppliers, reduction of supply base risks, use of full-service suppliers and ability to pursue complex supply management strategies, enabling an organization to increase its potential to deliver real competitive advantage to its customers.

[8] Identified seven key success factors which influence procurement, namely; a clear procurement strategy, effective management information and control systems, development of expertise, a role in corporate management, an entrepreneurial and proactive approach, co-ordination and focused efforts. An eighth is fundamental; communicate the key success factors to all levels of the organization and set out a procurement strategy to achieve continuous improvement in value for money. This should be based on total cost, quality, and enhancement of competitiveness of suppliers using best procurement practice. Performance standards when adopted can provide the decision-makers in the procurement department with unbiased and objective information regarding the performance of the procurement function. The evaluation or measurement of procurement performance has always been a vexing problem for procurement professionals.

He asserts that traditionally, firms concentrate on analyzing their own internal trends which do not portray the true picture of how they compare well with competitors. Such an approach ignores what the competitors are doing.

3. CONCEPTUAL FRAMEWORK

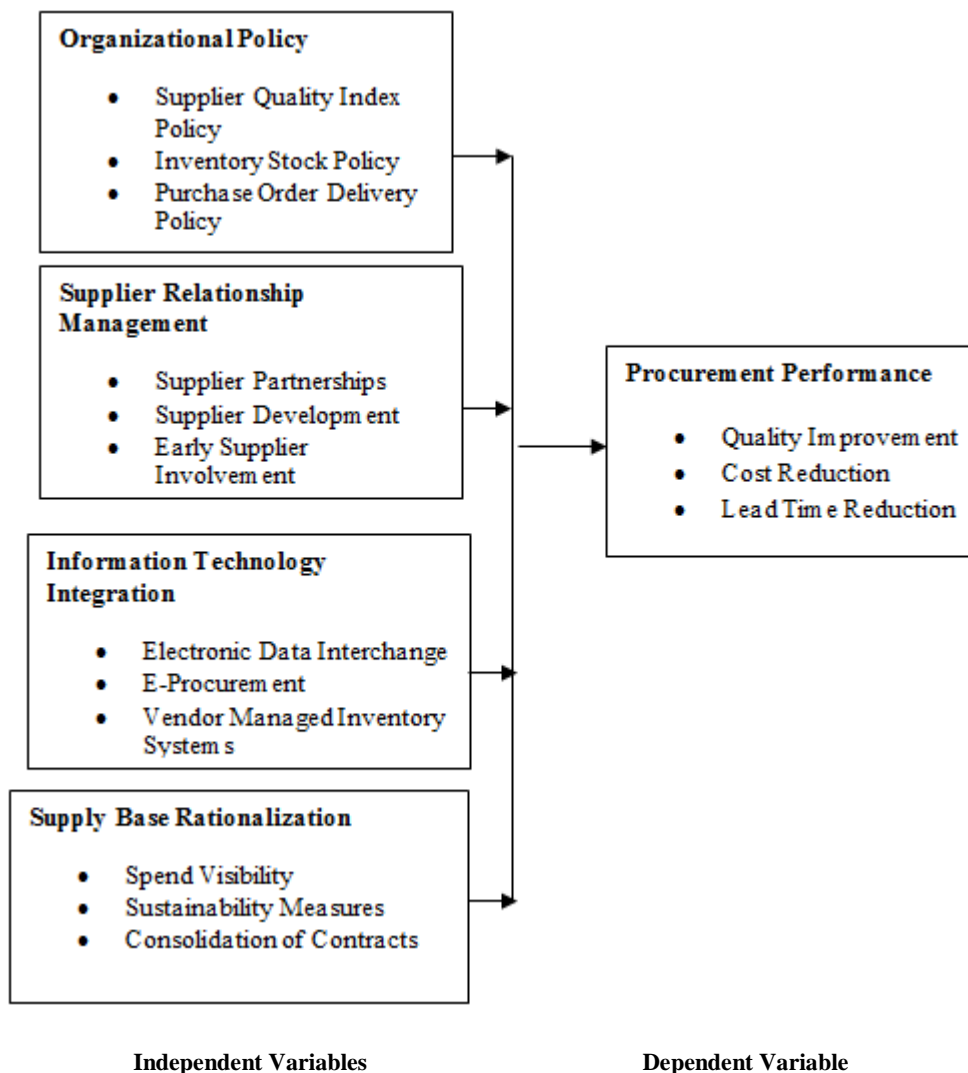


Figure 2.1: Conceptual Framework

4. SUMMARY AND CRITIQUE OF EXISTING LITERATURE

Existing literature has found colossal constraints in the public procurement system. For instance, [1], in his study found that procurement operations require better performance control system. He asserted that a records management system that an organization adopts has effects on its procurement operations. The researcher concluded that without ethics the performance of procurement operations would be negatively affected and pointed out that existing legal framework was an impediment to the performance of operations in the public procurement. He further concluded that integrated ICT systems organize and disclose enormous amounts of information about the workings of the total system. While appreciating his findings, this study notes that the researcher did not employ the personal observation tool so as to gather data, especially on ethics and integrity. Analysis of factors such as core technical skills and application of ICT in procurement management is important to overcome some of the constraints.

[9] in his study found that inefficiency in the supply chain was caused by bureaucratic procurement and disposal procedures, irrational supply base, adversarial customer-supplier relationships, and traditional storage operations. He recommended that Kenyatta National Hospital (KNH) procurement procedures be exempted from the Public Procurement Regulations, rationalization of the supply base, and partnership sourcing. This study concurs with his findings pertaining

to supply base rationalization and relationships but wishes to point out that the research instruments used were limited to an interview and observations. No questionnaires were administered which could have given adequate data for analysis. It was further noted that senior managers were not interviewed and he failed to employ records analysis method. [11] in his study found that weak oversight and enforcement, non-transparent practices, lack of effective links between procurement and financial management, poor record management and filing system, and delays and inefficiencies in the implementation of the PPDA as factors influencing the implementation of the procurement law in Kenya, the case of Ministry of Education. The study concluded inefficiencies in procurement led to increased procurement costs, causing longer cycle times, lower quality purchasing decisions within the ministry. While appreciating his findings, this study does not support findings that poor record management system alone impedes performance. Indeed, performance can still be improved if ICT is employed with modern control mechanisms. This study agrees with his recommendation that all stakeholders need to be sensitized on the good of embracing financial and procurement reforms.

It is evident that procurement performance requires input from all key stakeholders for holistic win-win situations. The government has provided the legal framework for practice. Equally, aspects such as outsourcing and multi sourcing are vital aspects of ensuring better performance in the procurement process. While there have been developments in the regulatory framework, there is still challenges to be addressed in order to realize full benefits of strategic sourcing in Kenya. While it has not been possible to assess the percentage of contracts which didn't use strategic sourcing techniques, the low share of procurements conducted through open tendering indicates that a large part of procurements is undertaken without employing strategic sourcing methods, thus leading to the low performance in procurement.

5. RESEARCH METHODOLOGY

Descriptive research design was used to allow the researcher to gather, summarize, present and interpret information for the purpose of clarification. It is mainstreamed to fact finding and may result in the formulation of important principles of knowledge and solution to significant problems. The target population consisted of government ministries in Kenya, unit of analysis was a ministry of industrialization and enterprise development. The unit of observation was 105 employees in procurement department composed of senior managers, middle-level managers, and support staff. The study employed a census approach to collect data from the respondents. Hence no sampling techniques were used. The study used self-administered questionnaires and observation schedules. This study utilized both primary and secondary data. Questionnaires were used to collect primary data which was distributed to the staff. The researcher made personal-follow ups to ensure that the questionnaires are filled and collected.

6. RESULTS AND DISCUSSION

Response Rate:

A sample of 105 respondents was interviewed using questionnaires that allowed the researcher to drop the questionnaire to the respondents and then collect them at a later date when they had filled the questionnaires. A total of 105 questionnaires were distributed to employees. Out of the population covered, 100 were responsive representing a response rate of 94.44 %.

Pilot Study:

The cronbach's alpha was computed in terms of the average inter-correlations among the items measuring the concepts. The rule of thumb for cronbach's alpha is that the closer the alpha is to 1 the higher the reliability (Ngechu, 2009). Cronbach's alpha was used to measure realibility. This was done on the four objectives of the study. The higher the coefficient, the more reliable is the test.

Table 1: Reliability Results

Variable	No of Items	Respondents	α =Alpha	Comment
Organizational Policy	9	9	0.893	Reliable
Supplier Relationship Management	9	9	0.987	Reliable
Information Technology Integration	9	9	0.974	Reliable
Supply Base Rationalization	9	9	0.976	Reliable

6.1 Organizational Policy:

The first objective of the study was to assess how organizational policy affects procurement performance in government ministries in Kenya. The respondents were asked to indicate to what extent organizational policy influenced procurement performance in government ministries in Kenya. Results indicated that majority of the respondents 25% agreed that it was to a very great extent, 27% said that it was to a great extent, 35% said it was moderate, while little extent and not all tied a were at 5 & 8 % respectively. Results indicated that majority of the respondents 86% agreed on the statement that supplier quality index policy plays a great role in quality improvement. Results also indicated that 90% of the respondents were in agreement that inventory stock policy plays a great role in quality improvement. Results indicated that majority of the respondents 100% agreed on the statement that purchase order delivery policy plays a great role in quality improvement.

6.2 Supplier Relationship Management:

The second objective of the study was to investigate the influence of supplier relationship management on procurement performance in government ministries in Kenya. The respondents were asked to indicate to what extent did supplier relationship management influenced procurement performance. Results indicated that majority of the respondents 31 % agreed that it was to a very great extent, 36 % said that it was to a great extent, 23 % said it was moderate, while little extent and not all tied at 5 %. The respondents were also asked to comment on statements regarding supplier relationship management influence on performance in government ministries in Kenya. Results indicated that 60 % of the respondents were in agreement that supplier partnerships play a great role in quality improvement. Results also indicated that 62% of the respondents agreed that supplier development plays a great role in quality improvement. Results also indicated that 61 % of the respondents agreed that early supplier involvement plays a great role in quality improvement.

6.3 Information Technology Integration:

There was also need to establish how information technology integration influenced performance in government ministries in Kenya as the third objective. The respondents were asked to comment on the extent of information technology integration influence performance in government ministries in Kenya. Results indicated that majority of the respondents 47 % agreed that it was to a very great extent, 45 % said that it was to a great extent, 2 % said it was moderate; little extent was 2% and not all at 4 %. The respondents were also asked to comment on statements regarding: information technology integration influence on procurement performance in government ministries in Kenya. Results indicated that majority of the respondents 67 % agreed on the statement that electronic data interchange plays a great role in quality improvement. Results also indicated that majority of the respondents 93 % agreed on the statement that e-procurement plays a great role in quality improvement. Results also indicated that majority of the respondents 58 % agreed on the statement that vendor managed inventory systems plays a great role in quality improvement.

6.4 Supply Base Rationalization:

There was also need to establish how supply base rationalization influences procurement performance among government ministries in Kenya. The respondents were also asked to comment on statements regarding how supply base rationalization influenced procurement performance of ministries in Kenya. Results also showed that majority of the respondents, 47 %, indicated very great extent, 45% to a great extent, the moderate extent was 5 %, not at all was 1% while little extent was 2%. The respondents were also asked to comment on statements regarding influence supply base rationalization influenced procurement performance in government ministries in Kenya. Results indicated that majority of the respondents 95% agreed on the statement that spends visibility plays a great role in quality improvement. Results indicated that majority of the respondents 64% agreed on the statement that sustainability measures play a great role in quality improvement. Results indicated that majority of the respondents 47% agreed on the statement that consolidation of contracts plays a great role in quality improvement.

6.5 Correlation Analysis:

Correlation analysis was used to determine both the significance and degree of association of the variables and also predict the level of variation in the dependent variable caused by the independent variables. The correlation technique is used to analyze the degree of association between two variables. The results of the correlation analysis are summarized in Table .2

Table 2: Summary of Pearson's Correlations

		Procurement Performance	Organization Policy	Supplier Relationship	Information Technology	Supply Base Rationalization
Procurement Performance	Pearson Correlation	1	.618**	.649**	.651**	.704**
	Sig. (2-Tailed)		0	0	0	0
	N	100	100	100	100	100
Organization Policy	Pearson Correlation	.618**	1	.663**	.597**	.558**
	Sig. (2-Tailed)	0		0	0	0
	N	100	100	100	100	100
Supplier Relationship Management	Pearson Correlation	.649**	.663**	1	.634**	.538**
	Sig. (2-Tailed)	0	0		0	0
	N	100	100	100	100	100
Information Technology	Pearson Correlation	.651**	.597**	.634**	1	.589**
	Sig. (2-Tailed)	0	0	0		0
	N	100	100	100	100	100
Supply Base Rationalization	Pearson Correlation	.704**	.558**	.538**	.589**	1
	Sig. (2-Tailed)	0	0	0	0	
	N	100	100	100	100	100
** Correlation Is Significant At The 0.01 Level (2-Tailed).						

The correlation summary shown in Table 4.10 indicates that the associations between each of the independent variables and the dependent variable were all significant at the 95% confidence level. The correlation analysis to determine the relationship between strategic sourcing process and procurement performance of government ministries, Pearson Correlation Coefficient computed and tested at 5% significance level.

The results indicate that there is a positive relationship ($r=0.618$) between organizational policy and procurement performance of government ministries. The results suggest that there is a positive correlation ($r=0.649$) between supplier relationship management and supply performance of departments. The results indicate that there is a positive correlation ($r=0.651$) information technology integration and supply performance among government agencies. The results shows that there is a positive correlation ($r=0.704$) between supply base rationalization and procurement performance of government agencies.

6.7 Regression Analysis:

Multivariate regression analysis was used in the study to determine the significance of the relationship between the dependent variable and independent variables pooled together. Regression analysis was conducted to find the proportion in the dependent variable (procurement performance of government ministries) which can be predicted from the independent variables (organizational policy, supplier relationship management, information technology integration and supply base rationalization). Table 4.3 presents the regression coefficient of independent variables against dependent variable. The results of regression analysis revealed there is a significant positive relationship between dependent variable (procurement performance of government ministries and the independent variables (organizational policy, supplier relationship management, information technology integration and supply base rationalization).

The independent variables reported R value of .796 indicating that there is a perfect relationship between dependent variable and independent variables. An R square value of 0.633 means that 63.3 % of the corresponding variation in

procurement performance of government ministries can be explained or predicted by organizational policy, supplier relationship management, information technology integration and supply base rationalization, which indicated that the model fitted the study data. R squared in table 3 is called the coefficient of determination which indicates how procurement performance of government ministries varied with a variation in effects of factors which includes organizational policy, supplier relationship management, information technology integration and supply base rationalization. The results of regression analysis revealed that there was a significant positive correlation between dependent variable and independent variable at ($\beta = 0.633$), $p=0.002 < 0.05$).

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 ^a	.633	.617	.202

a) Predictors: (constant), Organizational Policy, Supplier Relationship Management, Information Technology Integration and Supply Base Rationalization

b) Dependent Variable: Procurement Performance of Government Ministries

The research used a multiple regression models

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

Where Y= Performance of Government Ministries

β_0 = Constant

X_1 = Organizational Policy

X_2 =Supplier Relationship Management

X_3 =Information Technology Integration

X_4 = Supply Base Rationalization

ϵ = Error Term at 95% confidence level.

The regression equation will be;

$$Y = 2.825 + 0.034X_1 + 0.066X_2 + 0.056X_3 + 0.244X_4$$

The regression equation above has established that taking all factors into account (Organizational policy, supplier relationship management, information technology integration and supply base rationalization) constant at zero, procurement performance of ministries will be an index of 2.825. The findings presented showed that taking all other independent variables at zero, a unit increase in organizational policy will lead to a 0.034 increase in procurement performance of government ministries. The P-value was 0.04 which is less than 0.05, and thus the relationship was significant. The study also found that a unit increase in supplier relationship management will lead to a 0.066 increase in procurement performance of government ministries. The P-value was 0.015 which is less than 0.05, and thus the relationship was significant. In addition, the study found that a unit increase in information technology integration will lead to 0.056 increase in the procurement performance of government ministries. The P-value was 0.028 which is less than 0.05, and thus the relationship was significant. Lastly, the study found that a unit increase in supply base rationalization will lead to a 0.244 increase in the procurement performance of government ministries. The P-value was 0.000, and hence the relationship was significant since the p-value was lower than 0.05.

7. CONCLUSION

A total of 100 employees participated. The summary of the study findings presented herein followed the research objectives formulated in chapter one of the study. A majority of respondents were found to highly agree that the ministry had embraced organizational policy with regard to its procurement activities. Supplier quality index policy and inventory stock policy were common in the ministry. A majority of respondents were found to highly agree that the ministry had embraced supplier relationship management with regard to its procurement activities. Supplier partnerships, supplier development, and early supplier involvement were common in the ministry. A majority of respondents were found to

highly agree that the ministry had embraced information technology integration with regard to its procurement activities. Electronic data interchange, e-procurement, and vendor managed inventory systems were common in the ministry. A majority of respondents were found to highly agree that the ministry had embraced supply base rationalization with regard to its procurement activities. Spend visibility, sustainability measures and consolidation of contracts was common in the ministry.

The study endeared to determine the influence of strategic sourcing process on procurement performance with reference to ministry of industrialization and enterprise development. The regression results revealed that strategic sourcing process identified in the study, that is, organizational policy, supplier relationship management, information technology integration and supply base rationalization combined could explain approximately 63.3% of the variations in the performance of parastatals. The other 36.7% may be attributed to other strategies not explained by the model or the variables. The regression results revealed that strategic sourcing process identified in the study, that is, organizational policy, supplier relationship management, information technology integration and supply base rationalization combined could explain approximately 63.3% of the variations in the performance of parastatals. The other 36.7% may be attributed to other strategies not explained by the model or the variables.

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