

FACTORS AFFECTING PERFORMANCE OF PROCUREMENT FUNCTION IN KENYAN PUBLIC SECTOR: A CASE STUDY OF KENYA REVENUE AUTHORITY

Anderson Kiplagat Chebii¹ Richard Nondi² & Clifford Milimu³

¹ Master of Science in Procurement & Logistics student, College of Human Resource Development, JKUAT

² Senior Lecturer, COHRED, Jomo Kenyatta University of Agriculture and Technology.
creativityglobalconsultancy@gmail.com

Abstract: *The adoption of effective procurement practices is one such approach to gain competitiveness and increase organizational performance. Procurement in Kenya suffers from poor performance characterized by red tape measures, non-compliance to the Act, overpricing, poor planning, poor contract management, inadequate transparency and accountability, material redundancy and corruption. The aim of the study was to investigate the factors affecting performance of procurement function in the Kenyan public sector. The study employed procurement planning, supplier involvement, procurement leadership and technology as the specific objectives. The study employed legitimacy theory which states that the organization has the mandate to state its activities to the stakeholders, Resource Based View (RBV) theory which is based on approach of strategic management decision making capability as a basis for superiority of the firm and value chain analysis theory which is used as a strategy tool to analyse internal firm activities. The study used descriptive research design to address the specific aims and objectives of the study. The target population for the study was 243 staff of Kenya Revenue Authority from various departments. The sample size for the study was 72 tabulated from the target population. Data was collected by use of questionnaires. Data processing, analysis and presentation was done using statistical packaging social sciences (SPSS) version 22 where the data was presented in form of tables and frequencies. From the research findings, the study concluded all the independent variables studied have positive significant effect on procurement performance at Kenya Revenue Authority (KRA) as indicated by the strong coefficient of correlation and a p-value which is less than 0.05. The policy makers, corporate managers and other key players in procurement fraternity to restructure and harmonize all the public procurement laws and regulations so as to facilitate due diligence for all the procedures done to enhance procurement performance. Government, key stakeholders, procurement bodies and county government should sensitize and educate all relevant key players and users on the importance of practicing good values when in any procurement position. Management in procurement should benchmark with other best countries that have best e-procurement systems in order to cope and being able to implement them in the organization procurement systems.*

Key words: *Planning, Supplier Involvement, Leadership, Technology & Innovation and Procurement.*

1. INTRODUCTION:

Procurement encompasses the whole process of acquiring property and/or services. It begins when an agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery of and payment for the property and/or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract. Procurement also extends to the ultimate disposal of property at the end of its useful life (Waters, 2004). Procurement practices cannot on their own improve efficiencies individually, since the efficiency can be achieved through the interaction of various supply chain practices. Dawe (2004) point that, for effective SCM, a comprehensive effort for improvement in all of supply chain functions within a firm should be made, and, first of all, the focus of supply chain practices should shift from functional and independent to general and integrative. This implies that the performance of each supply chain practice should be evaluated depending on how the practice has a significant effect on the efficient integration of entire supply chain processes, and thus, the successful achievement of SC integration can be possible by the systematic utilization of various supply chain practices.

2. RESEARCH OBJECTIVES:

General Objective

The general objective of the study was to determine factors affecting performance of procurement function in Kenya public sector.

Specific Objectives

- i) To determine the effect of procurement planning on performance of procurement function at Kenya Revenue Authority.
- ii) To evaluate the effect of supplier involvement on performance of procurement function at Kenya Revenue Authority.
- iii) To establish the effect of procurement leadership on performance of procurement function at Kenya Revenue Authority.
- iv) To examine the effect of technology and innovation on performance of procurement function at Kenya Revenue Authority.

3. LITERATURE REVIEW:

3.1 Theoretical Framework

There are several competitive strategy theories that can be applied to explain the factors affecting performance of procurement function in Kenya public sector.

3.2 Legitimacy Theory

The Legitimacy Theory states that the organization has the mandate to state its activities to the stakeholders, more specifically to the public and state the benefits the society will get from it (Wilmshurst & Frost, 2000). A state is there when an organization's value system is in line with the value system of the society that the organization exists (Lindblom, 2014). Legitimacy is a perception that the acts of the organization are acceptable in the constructed system of behaviour in the society that it exists in (Suchman, 2013).

Legitimacy Theory therefore brings in good understanding in the government procurement systems. The concept of legitimacy strongly suggests that the social contract which is between the government and the public can be eliminated. In government procurement context, there are issues (such as cronyism and corruption) that could endanger the legitimacy practice. In accordance to the Legitimacy Theory, government officers' choices of legitimizing implementation strategies are focused on the interpretation of the local authority or department involved, and different government officers will likely have different ideas of what is expected of them from the public and whether the department or agency or local authority is viewed by the society as complying with the expectations that is expected from them (Deegan et al., 2002).

3.3 Resource Based View Theory

The emphasis of the RBV approach to strategic management decision making is on the strategic capabilities as basis for superiority of the firm rather than attempting to constantly ensure a perfect environmental fit. Resources are the specific physical, human, and organizational assets that can be used to implement value-creating strategies. Capabilities present the capacity for a team of resources to perform a task or activity, in other words, capabilities present complex bundles of accumulated knowledge and skills that are exercised through organizational processes, which enable companies to coordinate their activities and make use of their assets (Ekundayo and Ajayi, 2009). Clegg, et al, (2011), says capabilities are always vulnerable to be competed away by a competitor's higher order capability amongst other limitations such as erosion or substitution. Intangible assets are central to the RBV approach to understanding competitive advantage since they cannot easily be acquired or imitated, in contrast to tangible assets.

3.4 Value Chain Analysis Theory

Value chain analysis is a strategy tool used to analyze internal firm activities. Its goal is to recognize, which activities are the most valuable to the firm and which ones could be improved to provide competitive advantage. It is important to put a lot of focus on the core activities which is instrumental in any success. The idea of the value chain is based on the process view of organizations, the idea of seeing a manufacturing (or service) organization as a system, made up of subsystems each with inputs, transformation processes and outputs. How value chain activities are carried out determines costs and affects profits. (Hunger & Wheelen, 2014)

Strategy management must use the value chain analysis as a decision support tool in strategy implementation. This will call for review of activities and merging the most crucial activities to exploit resources fully. The researcher will use the analysis to monitor the firm's activities within the set parameters and separate activities in order of the most crucial.

4. REVIEW OF LITERATURE VARIABLES:

4.1 Procurement Planning

Any procurement begins with the planning decision to make the purchase. This will involve deciding whether there is a need for the particular goods or services and will equally involve ensuring that the purchaser has the legal powers to undertake the transaction, obtaining any relevant approvals within the government hierarchy and arranging the necessary funding (Arrowsmith, Linarelli & Wallace, 2000). Procurement planning is one of the primary functions of procurement with a potential to contribute to the success of organization operations and improved service delivery. It is

a function that sets in motion the entire acquisition/procurement. Despite this importance, very limited scientific research has been done to examine the extent to which efforts in procurement planning can contribute to effective local governance (BenonBasheka 2008) He also noted that, Procurement planning is the primary function that sets the stage for subsequent procurement activities. It ‘fuels and then ignites’ the engine of the procurement process.

These institutions normally make their plans for tenures of a year. For the plans to be effective and representative of the bank requirements, these plans need to be drawn from the different users who are represented by the different departments. This then sets the ground for the other activities including sourcing for the required funds.

4.2 Supplier Involvement

Van Echtelt et al. (2008) define supplier involvement as the resources (capabilities, investments, information, knowledge, ideas) that a firm’s supplier can provide, the activities performed and the responsibilities they have regarding the development of a part or subassembly of a NPD or a existing project. Dowlatshahi (2014) supports this definition as he has described that supplier involvement concerns the integration of the capabilities that suppliers can contribute to product development projects. Wynstra and ten Pierick (2000) argue that supplier involvement may range from small design suggestions to the full responsibility of developing, designing and engineering of a specific part or sub-assembly. In the automotive industry, for example, suppliers now have responsibility over the complete dashboard of a car which they completely deliver at the car manufacturer’s production site (Helper and Levine, 2011). Supply chain management has long-term objectives and short-term objectives. The long-term objectives would include: creating value to customers, increase profits, improve efficiency of production operations, and increase market share (Williams, 2006). On the other hand, short-term objectives would generally include: improve productivity, reduce cycle time, and reduce inventory (Wisner & Tan, 2000). Firms willing to receive frequent deliveries have the incentive to assist and develop their suppliers and to establish close relationships with them (Scannell et al., 2000).

4.3 Procurement Leadership

Leadership is the ability of an individual or a group of individuals to influence and guide followers or other members of an organization (Sharma, 2009). Leadership involves making sound (and sometimes difficult) decisions, creating and articulating a clear vision, establishing achievable goals and providing followers with the knowledge and tools necessary to achieve these goals (Emberson, 2006). Good leaders often possess the following characteristics: self-confidence, strong communication and management skills, creative and innovative thinking, perseverance in the face of failure, willingness to take risks, openness to change and levelheadedness and reactivity in times of crisis.

4.4 Technology and Innovation

Technology capacity is defined as the branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment, drawing upon such subjects as industrial arts, engineering, applied science, and pure science (Noah & Charney, 2014). According to (Wanaina, 2011) defines Technology capacity as the purposeful application of information in the design, production, and utilization of goods and services, and in the organization of human activities. The adoption of technology application in the procurement process has reduced this through the online methods of carrying out the procurement process. The use of online forms, orders, emails, new software technologies in evaluating and making price comparisons, supplier selection, bidding process, payment of the suppliers has made this process efficient and at the same time will ensure transparency and accountability to the public resources as well as reduction in errors and omissions (Roehrich & Davies, 2009). The adoption of these technology applications has an overall impact on the organization in that it will reduce costs within the procurement department as well as reduce errors in the procurement process thus ensuring maximum output of the organization at the lowest costs possible.

5. RESEARCH METHODOLOGY:

5.1 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It constitutes decisions regarding what, where, when, how much, and by what means concerning a research study (Kothari 2006). Research design is the strategic plan that sets out the broad outline and key features of the work to be undertaken in a research study. It describes how the research strategy addresses the specific aims and objectives of the study, and whether the research issues are theoretical or policy-oriented (Mugenda & Mugenda, 2003).

The study used a descriptive research design in carrying out the study. The design is preferred because it is concerned with answering questions such as who, how, what, which, when and how much (Cooper & Schindler, 2006).

5.2 Sample Size and Sampling Technique

A sampling frame is a list, directory or index of cases from which a sample can be selected (Kothari, 2006). Cooper and Schindler (2006) define sampling as selecting a given number of subjects from a defined population as representative of that population. Randomly sampling technique will be used. 30% formula was used to arrive at sample size.

According to Kothari (2006) for a population that is less than 200, sampling is not necessary and thus a census is conducted. According to Mugenda and Mugenda (2003) and Kothari (2006) a sample size of 10% is adequate for a descriptive study which has a small population that is more than 200.

Table 1 Sample Size

Department	Population	%	Sample Size
Technical Support Service	63	30	19
Corporate Support Service	51	30	15
Customs Service	87	30	26
Procurement	21	30	6
Investigations & Enforcement	21	30	6
Total	243		72

5.3 Data Collection and Instruments

According to Kombo and Tromp (2006), data collection refers to the action of gathering specific information aimed at proving or refuting some facts. The main tool for data collection in this study was through questionnaires. Questionnaires were preferred because they are easy to design, distribute and collect the required data (Gray, 2004). Questionnaires can also eliminate the interaction between the interviewer and the respondents and therefore reduces bias (Kombo & Tromp, 2006).

5.4 Data Processing, Analysis & Presentation

According to Zikmund et al. (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. Data processing involves translating the answers on a questionnaire into a form that can be manipulated to produce statistics. This involves coding, editing, data entry, and monitoring the whole data processing procedure.

The regression model helped to explain the magnitude and direction of relationship between the variables of the study through the use of coefficients like the correlation, coefficient of determination and the level of significance.

The multi- linear regression model was as indicated;

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where,

Y= Strategic Performance (Dependent variable)

α_0 = Constant

B= Regression coefficient

X1=Procurement Planning

X2=Supplier Involvement

X3= Procurement Leadership

X4= Technology & Innovation

e= margin of error

6. RESEARCH FINDINGS AND DISCUSSIONS:

DISCUSSION OF FINDINGS IN RELATION TO EMPIRICAL REVIEW

6.1 PROCUREMENT PLANNING

Table 2 Procurement Planning

	N	Mean	Std. Deviation
Need assessment is part of planning as an effect of procurement performance in your organization	54	4.28	.763
The organization adhere to the laid down procurement process and procedures in its procurement planning facilities	54	4.52	.818
Procurement planning facilitates efficiency and effectiveness in procurement operations	54	4.65	.619
Procurement planning promotes transparency and accountability	54	4.78	.572
Procurement planning coordinates and integrates action to fulfil a need for goods, services or works in a timely manner and at a reasonable cost	54	4.74	.589
Valid N (list wise)	54		

As per the results indicated in the above table 4.6, majority of respondents agreed that need assessment is part of planning as an effect of procurement performance in most of the organization having a mean score of 4.28 with standard deviation of 76.3%. The statement is conjunction with Njorge,(2015) who asserted that procurement planning is the foundation of the whole procurement activities within the financial year which may help the organization achieve its procurement objectives. Most of the respondents had very great extent opinion that procurement coordinates and integrates action to fulfil a need for goods, services or works in a timely manner and at a reasonable cost. This is in support Oloo (2016) who asserted that for any entire organization achieving procurement function it has to invest in proper structures and systems across the board.

From the analysis the results revealed that majority of the respondent’s had very great extent opinion that organization should adhere to the laid down procurement process and procedures in its procurement planning having mean score of 4.52 and standard deviation of 81.8% indicator higher response rate.

6.2 SUPPLEIR INVOLVEMENT

Table 3 Supplier Involvement

	N	Mean	Std. Deviation
Institution has developed voluntary arrangement with suppliers through involving exchange, sharing or development of product and services, technology or services	54	4.78	.502
Supplier involvement affect procurement performance	54	4.76	.473
Institution coordinates and develops suppliers based on mutual trust relationship	54	4.70	.603
Institution selects suppliers through bidding process to evaluate and choose a few suppliers	54	4.67	.583
The institution selects suppliers based on prices by comparison of different suppliers	54	4.63	.592
The institution has the best approach supplier involvement	54	4.56	.816
Valid N (list wise)	54		

From the study results, it reveals that majority of the respondents had very great extent opinion that institution have to coordinate and develops suppliers based on mutual trust relationship having mean score of 4.70 and standard deviation of 60.3%. The findings were supported by Lewis (2009) that having appropriate supplier relationship management mechanism in place would make the organization have best mutual relationships with suppliers. Majority of the respondents had very great extent opinion that the institution selects suppliers through competitive bidding process to evaluate and choose the best supplier’s compliance to the public

Procurement and disposal act 2015.The findings were supported by Ngetich (2015) that evaluation process plays a significant role in getting the best suppliers who have been scrutinized and competent enough to supply the organization or provide any services.

6.3 PROCUREMENT LEADERSHIP

Table 4 Procurement Leadership

	N	Mean	Std. Deviation
What are the qualifications of the evaluators in respect to procurement and the goods and works under evaluation	54	4.61	.712
Supports buyer supplier relationships	54	4.59	.922
Enhances costs reduction and quality management	54	4.50	1.042
Supported by top management and other key players in procurement	54	4.72	.596
Reduced conflicts in the procurement function	54	4.61	.656
Valid N (listwise)	54		

The study sought to examine the influence of procurement leadership on the procurement performance function at Kenya Revenue Authority. From the study the results revealed that majority of the respondent’s had very great extent opinion that qualifications of the evaluators in respect to procurement of goods, services and works must be always maintained as stipulated in the public procurement and disposal act 2015. These findings are supported by Kiawa (2016) that a breach of the regulations in the Public Procurement and Disposal Act (2015) has legal consequences. From the study, it reveals that majority of the respondents had very great extent opinion that top management and other key players in procurement have the crucial role of supporting the entire procurement function. Majority of the respondents

had very great extent opinion that organization have the responsibility of supporting buyer supplier relationships to enhance procurement performance having mean score of 4.59 and standard deviation of 92.2% The findings are supported by Lewis (2014) where buyer supplier relationships has significantly improved the organization performance.

6.4 TECHNOLOGY INNOVATION

Table 5 Technology Innovation

	N	Mean	Std. Deviation
Current technology has been upgraded to support supplier portals	54	4.65	.731
Current technology supports electronic procurement activities	54	4.69	.773
The organization has shifted to e-sourcing as a tool of electronic procurement	54	4.61	.998
The use of technology in the procurement has enhanced better communication mechanisms	54	4.65	.850
The technology has helped the institution to save much from procurement activities	54	4.81	.438
The institution has the best efficient technology system in place	54	4.69	.820
Valid N (listwise)	54		

The study sought to determine the effect of technology innovation on the procurement performance function at Kenya Revenue Authority. Majority of the respondents had very great extent opinion that the institution had the best efficient technology system in place that has enabled it to achieve procurement performance function at large in support of mean score 4.69 and standard deviation of 82%.As per the results above in table 4.9 majority of the respondents had very great extent opinion that the embracement and usage of technology in the procurement operations has enhanced better communication mechanism where the procuring entity and supplier can link with another by use of portals like supplier portals. Marconi (2014) asserts that technology embracement is one of the new mechanism organizations have to embrace especially in procurement where it has shifted to electronic procurement assisting supplier to transact and get orders online.

6.5 REGRESSION ANALYSIS

Table 6 Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.242 ^a	.059	.018	1.56367
a. Predictors: (Constant), Technology Innovation, Procurement Planning, Procurement Leadership, Supplier Involvement				

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (procurement performance) that is explained by all independent variables. From the findings this meant that 59% of procurement performance is attributed to combination of the four independent factors investigated in this study.

From the results it implies that procurement planning, supplier involvement, procurement leadership and technology innovation had explanatory power of change in the procurement performance at Kenya Revenue Authority as it accounted for 59% of its variability (R square = 0.059) on the model 1, hence it implicated that the model is a good fit for the data. This results is in agreement by Lockamy (2010). Further from the results it depicts that there is a moderate positive relationship between independent variables (procurement planning, supplier involvement procurement leadership & technology innovation and dependent variable (procurement performance).

6.6 ANALYSIS OF VARIANCE (ANOVA)

Table 7 Analysis of Variance

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.452	4	1.863	.762	.000 ^b
Residual	119.808	49	2.445		
Total	127.259	53			
a. Dependent Variable: Performance Function					

b. Predictors: (Constant), TechnologyInnovation, Procurement Planning, Procurement Leadership, Supplier Involvement

The significance of the regression model is as per Table 4.12 above, with p-value of 0.000 which is less than 0.05. This indicates that the regression model is statistically significant in predicting the assessing factors affecting performance of procurement function in Kenyan Public Sector. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall ANOVA results indicates that the model was significant at $F=0.762$, $p\text{-value} = 0.000$, this shows that the overall model was significant and that procurement planning, supplier involvement, procurement leadership and technology innovation affects procurement performance function.

6.7 REGRESSION COEFFICIENT

Table 8 Regression Coefficient

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.471	2.912		9.089	.000
	ProcurementPlanning	.066	.092	.117	-.718	.000
	SupplierInvolvement	.061	.111	.107	-.548	.000
	ProcurementLeadership	.039	.098	.074	-.403	.000
	TechnologyInnovation	.088	.067	.217	1.310	.000

a. Dependent Variable: Procurement PerformanceFunction

PP= Procurement Planning SI= Supplier Involvement PL= Procurement Leadership TI= Technology Innovation
 The general regression Model arrived at was $Y = 26.471 + 0.066X_1 + 0.061X_2 + 0.039X_3 + 0.088X_4$

The results of the Beta Coefficient in the regression model indicates that all of the tested variables had positive relationships with procurement performance at Kenya Revenue Authority with all the independent variables tested being statistically significant with p-value less than 0.05. From the findings it is depicted that a unit increase of procurement planning (0.066) will result in change of procurement performance at Kenya Revenue Authority, a unit increase of supplier involvement (0.061) will lead to change in procurement performance at Kenya Revenue Authority, a unit increase in procurement leadership (0.039) will lead to change in procurement performance while a unit increase of technology innovation (0.088) will result in change of procurement performance at the Authority. Furthermore it was concluded that there is statistically significant relationship between independent variables (procurement planning, supplier involvement, procurement leadership & technology innovation) and dependent variable (procurement performance).

7. SUMMARY OF FINDINGS AND CONCLUSION:

The study sought to determine the effect of procurement planning on the procurement performance at Kenya Revenue Authority. As per the results indicated in the above table 4.6 majority of respondents agreed that need assessment is part of planning as an effect of procurement performance in most of the organization having a mean score of 4.28 with standard deviation of 76.3%. The statement is conjunction with Njoroge (2015) who asserted that procurement planning is the foundation of the whole procurement activities within the financial year which may help the organization achieve its procurement objectives. Descriptive statistical methods were used to arrive at the results. Inferential statistics also played vibrant role on providing findings.

From the study results, it reveals that majority of the respondents had very great extent opinion that institution have to coordinate and develops suppliers based on mutual trust relationship having mean score of 4.70 and standard deviation of 60.3%. The findings were supported by Lewis (2009) that having appropriate supplier relationship management mechanism in place would make the organization have best mutual relationships with suppliers. Descriptive statistical methods were used to arrive at the results.

The study sought to establish the influence of procurement leadership on procurement performance function at Kenya Revenue Authority. From the study the results revealed that majority of the respondent's had very great extent opinion that qualifications of the evaluators in respect to procurement of goods, services and works must be always maintained as stipulated in the public procurement and disposal act 2015. The findings are supported by Kiawa (2016) that any breach of the regulations in the public procurement and disposal act 2015 leads to prosecution in a court of law. The study sought to determine the effect of technology innovation on the procurement performance at Kenya Revenue Authority. Descriptive statistics methods were used to arrive at results. Their correlation result was 0.088 while

regression coefficient result was 0.171. Based on the measurement of technology, innovation indicators greatly influenced procurement performance as a dependent variable. The results showed that based on the findings of correlation and regression analysis it replicated a strong significant positive relationship between technology innovation and procurement performance

From the research findings, the study concluded all the independent variables studied have positive significant effect on procurement performance at Kenya revenue Authority as indicated by the strong coefficient of correlation and a p-value which is less than 0.05. The overall effect of the analyzed factors was very high as indicated by the coefficient of correlation. This implies that the studied independent variables namely procurement planning, supplier involvement, procurement leadership and technology innovation have significant effect on procurement performance at KRA.

8. RECOMMENDATIONS

The study would assist chief executive officers, head of procurement, managers and other key player's to develop structures and policies that contribute to better procurement performance and achieving value for money. The policy makers, corporate managers and other key players in procurement fraternity, to restructure and harmonize all the public procurement laws and regulations so as to facilitate due diligence for all the procedures done to enhance procurement performance.

The study might be of use to chief executive officers, head of procurement, managers and other key players to understand the factors affecting performance of procurement function in public sector and which best strategies to mitigate them.

Top procurement heads, managers and other key players need to understand the major drivers of better procurement performance and those that worked against it.

Government, key stakeholders, procurement bodies and county government should sensitize and educate all relevant key players and users on the importance of practicing good values when in any procurement position.

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