



## **INFLUENCE OF PROCUREMENT MANAGEMENT PROCESS ON PERFORMANCE OF DONOR FUNDED PROJECTS IN KENYA**

**(A CASE OF AFRICA DEVELOPMENT BANK IN KENYA)**

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**Abstract:** Procurement management process is a practice used by most organizations yet not followed to the later by many organizations. Procurement management is the systematic approach used for buying all the goods and services needed for a company to stay sustainable. Donor organizations and development agencies view projects as important vehicles to achieving their stipulated objectives and targets. The general objective of the study is to establish the influence of procurement management process on performance of donor funded projects in Kenya. The specific objectives of the study include to establish the influence of procurement planning on performance of donor funded projects in Kenya, to identify the influence of solicitation process on performance of donor funded projects in Kenya, to establish the influence of source selection on performance of donor funded projects in Kenya, to identify the influence of contract administration on performance donor funded projects in Kenya. The study was confined to African Development Bank projects in Kenya. The researcher was a descriptive survey design to carry out the study. The study population for this research comprised of 24 projects African Development Bank funded projects and the targeted population was 144 persons comprising of project managers, procurement officers, implementation specialists, technical experts and task managers, working in different capacities of the projects. The study used purposive sample to pick 6 respondents from each of the 24, giving a sample of 144 respondents. A questionnaire was used to collect data from the respondents. The researcher will use drop and pick method to collect data. A pilot study was conducted to pretest the validity and reliability of instruments for data collection. The collected data was analysed using descriptive and inferential analysis. Data from questionnaire will be coded and logged in the computer using Statistical Package for Social Science (SPSS). The study further adopted regression analysis to determine the relationship among the variables. The study found that procurement planning, solicitation, source selection, contract administration influenced procurement management process as per regression analysis. The coefficient of determination  $R^2 = 0.644$  shows the predictive power of the model and in this case 64.4% of variations in the procurement management processes is explained by the independent variables. The adjusted coefficient of determination  $R^2$  shows the predictive power when adjusted for degrees of freedom and sample size. In this case, after the adjustments 61.8% of the variations in the procurement management process is explained by the independent variables. The study concludes project management process is poorly handled in procurement system during the implementation of the donor funded projects. However the study also concludes that open solicitation is used mostly compared to other solicitation methods; there is transparency in the solicitation process. The study mainly recommends Timely completion of donor funded projects should be achieved by enhancing transparent procurement management process, employing monitoring and evaluation technique. Completion time of projects should be improved which will enhance the project management process.

**Key words:** Procurement Planning, Solicitation Process, Source Selection, Contract Administration

## **Introduction**

Sound public procurement policies and practices are among the essential elements of good governance (KIPPRA, 2006). Donor organizations and development agencies consider projects as a vital vehicles to achieving their stipulated objectives and targets. Over the last half century, donor funding has emerged as a dominant strategy for alleviating poverty in the third world. Not coincidentally, during this time period major international institutions, such as the United Nations, World Bank, and International Monetary Fund gained prominence in global economic affairs (Hjertholm & White, 2013). In Kenya, the Public Procurement Oversight Authority (PPOA) is the body charged with ensuring that procurement procedures established under the Public Procurement and Disposal Act 2005 are complied with. The body also monitors the procurement system and reports on its overall functionality. Other functions of the body include initiating public procurement policy, as well as assisting in the implementation and operation of the public procurement system by: preparing and distributing manuals and standard tender documents, providing advice and assistance to procuring entities, as well as developing, promoting and supporting training and professional development of staff involved in procurement (PPOA, 2015).

According to Mamiro (2010), poor management of procurement processes has been cited as a likely cause of poor performance in donor-funded projects. The World Bank (2005) for instance indicates that at the close of the Kenya Urban Transport Infrastructure Project (KUTIP), out of the 21 works contracts scheduled for implementation under the project, 14 contracts were completed, three contracts were 94%-99% complete, and two contracts were 62%-65% complete while two contract packages were never implemented due to the suspension of the financing.

In Kenya, one of the projects funded by the African Development Bank under the name of Education III have not been able to complete a classroom block for Kamukunji Secondary School in Nairobi. Some contributing factors cited were poor procurement planning and management of the projects. A case of Lamu Coal Project has also not taken off due to failure by the government to agree with the local community on resettlement to allow for project implementation. Delays related to lack of proper contract administration are also cited as a cause of the slow progress during the first two years of the Kenya Development Learning Centre Project (World Bank, 2007b). The African Development Bank reports show that, the average solicitation time for goods and works in 2008 was 14.1 months while for consultancy service was 15.8 months (AfDB, 2009). However, the overall solicitation time has continued to drop since 2005, from 17.8 months in 2005 to 16.4 months in 2006, then to 12.4 months in 2010 and lastly to 11.8 months in 2011 (AfDB, 2011).

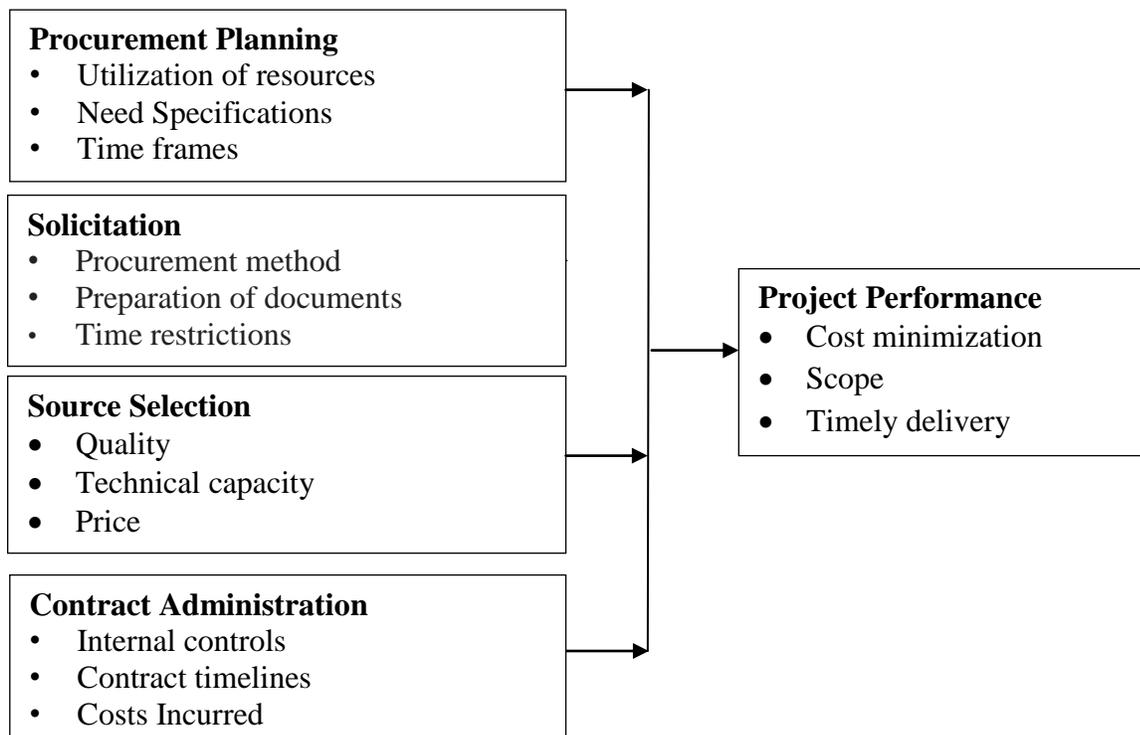
The Kenyan government and development organizations such as the African Development Bank have continued to invest in the smooth implementation of projects in Kenya in order to alleviate poverty and improve the living standards of the public at large. The performance of these projects is the major problem as they are not successful due to influence of procurement management process. In spite of having various studies undertaken on procurement problems by various writers, there are still gaps that need to be addressed. This study, thus sought to establish the influence of procurement management process on performance of donor funded projects in Kenya.

The study was guided by the following specific objectives:

1. To establish the influence of procurement planning on performance of donor funded projects in Kenya.
2. To identify the influence of solicitation process on performance of donor funded projects in Kenya.
3. To establish the influence of source selection on performance of donor funded projects in Kenya.
4. To identify the influence of contract administration on performance donor funded projects in Kenya.

### Conceptual Framework

A conceptual framework is an analytical tool with several variables and contexts (Diamond, 2010). It is used to make conceptual distinctions and organize ideas. The dependent variable in this study is procurement management process while independent variables are the procurement planning, solicitation, source selection and contract administration. The following is a conceptualization of the variables of the study.



**Independent Variables**

**Dependent Variable**

**Figure 1: Conceptual Framework Literature Review**

As a general planning principle, Chandra (2010) asserts that unlike small projects that involve few activities, complex projects that go beyond a certain threshold level of magnitude should proceed on

the basis of a sound formal planning platform without which there may be chaos. Sound formal planning provides the basis for organizing the work on the project and allocating responsibilities to individuals. Brown and Hyer (2010) asserted that in general planning includes identifying the purpose, defining the scope, determining customer requirements (user needs), identifying tasks (key procurement activities), estimating time (delivery schedules for goods and services) and cost, assigning responsibilities and other activities.

Mamiro (2010) points out that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. When planning is properly conceived and implemented, it can serve as an important mechanism for extracting, distributing and allocating resources (James, 2004). According to Rumbaugh, (2010), the procurement methods available to an organization vary widely and depend on the product, cost estimate, and availability of sources. The cost determines whether it is a micro-purchase, simplified acquisition procedures, sealed bid, or negotiated procurement

Supplier selection is the process by which firms identify, evaluate, and contract with suppliers. The supplier selection process deploys a tremendous amount of firms financial resources. In return, firms expect significant benefits from contracting with suppliers" offering high value. Suppliers have been acknowledged as the best intangible assets of any business organization (Muralidharan *et al.* 2012). According to Tahririet *al.*, (2012), "supplier selection problem has become one of the most important issues for establishing an effective supply chain system." Indeed, supplier selection and evaluation represents one of the significant roles of purchasing and supply management functions.

According to Meredith and Mantel (2012), the key things to be planned, monitored and controlled are time (schedule), cost (budget) and scope (performance). The prescribed public sector procurement plan format has already discussed above exhibits the first two as very prominent features. It is useful to perceive the control process as a closed-loop system, with revised plans and schedules (if warranted) following corrective actions. According to Brown and Hyer (2010), monitoring refers to any tracking system from a simple checklist to sophisticated dashboard style approaches, for identifying variances from the original plan. They advance the argument that as part of the planning process, a project team should agree on the appropriate approach for monitoring key performance indicators (KPIs) during the life of the project. On the other hand, Brown and Hyer (2010) define the concept of project control as the set of processes, decisions, and actions involved in responding to project variances. Project control thus portends a project change management process for deciding when changes are appropriate and when to stay the course.

### **Materials and methods**

This study used descriptive research design. The study population for this research was all projects done by ADB in Kenya and the targeted population was 24 project persons working in different capacities of the projects. These include the procurement officer, task manager, Implementation specialist, Technical expert and Project manager. To make a representative size for a descriptive study; the research target 144 respondents from the population. The respondents were issued with a questionnaire which they filled and submitted. Purposive sampling was used to pick the sample. According to Siegel (2010), purposive sampling is used when the researcher is keen on some particular

characteristic of the sample. In this case, the study used purposive sample to pick 6 respondents from each of the 24 projects based on their involvement in the procurement process during the project. The respondents consisted of the task manager, project manager, implementation specialist, procurement officer, and technical expert in each of the 24 projects, giving a sample of 144 respondents.

Questionnaires were used to collect data from the respondents. The study determined the data collection approach largely by identifying the type of information needed (Saunders 2011). Cooper and Schindler contend that this is influenced by investigative questions that must be answered by the study and the desired data type for each question. This is because of simplicity in the administration and scoring of items as well as data analysis (Gronhaug, 2005). The study utilized quantitative questionnaire that were developed for generating information on key variables of interest from the targeted respondents in this study. The questionnaire were self-administered and distributed to the respondents and reasonable time given before they were collected. The completed questionnaires were sorted and cleaned of errors. Pilot test was done with the purpose of detecting any weakness and finding out if the questionnaires are clear to the respondents. The research instrument was administered to twelve randomly selected staff who were selected for the actual study.

The collected data was analysed using descriptive and inferential analysis. Descriptive statistics provide for meaningful distribution of scores using statistical measures of central tendencies, dispersion and distribution (Kothari, 2004).

Data from close ended questions in the questionnaire were coded and entered into the computer using Statistical Package for Social Science (SPSS).

The multiple regression models below;

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

Where  $Y$  is the procurement management processes,  $\beta_0$  is constant and  $\varepsilon$  is the error term of the model.

$X_1$	=	Procurement planning
$X_2$	=	Sollicitation
$X_3$	=	Source sélection
$X_4$	=	contract administration

## Results and Discussions

### Procurement planning influence on donor funded projects in Kenya

The study sought to establish the influence of procurement planning on performance of donor funded projects in Kenya. The study established that project team uses a procurement plan (Mean 3.73). Further the study found that procurement plan clearly shows the methods to be used in the procurement (3.69), there are increased number of projects completed on time due to adherence to procurement plan (mean 3.01), resources are utilized due to procurement planning There is improved performance as a result of procurement planning (3.89). The findings indicated that to moderate extent all what is in the procurement plan is procured (2.89). Finally the findings indicated that budget in the procurement plan is followed to the later (Mean=3.72).

**Table 1: Procurement planning**

Statements	Mean	Std Dev.
The project team uses a procurement plan	3.73	0.732
Procurement plan clearly shows the methods to be used in the procurement	3.69	0.637
There are increased number of projects completed on time due to adherence to procurement plan	3.01	0.66
Resources are utilized due to procurement planning	4.00	0.63
There is improved performance as a result of procurement planning	3.89	0.42
All what is in the procurement plan is procured on time	2.89	0.35
Budget in the procurement plan is followed to the later	3.72	0.26

**Solicitation process influence on performance of donor funded projects in Kenya.**

The study sought to identify influence of solicitation process on performance of donor funded projects in Kenya. The findings from the study indicated that the solicitation documents are always clear mean=3.53. The study further found that open solicitation is used mostly compared to other solicitation methods (Mean=3.37); there is transparency in the solicitation process(Mean=3.64). Bidders have freedom to ask questions during the solicitation process(Mean=3.89), pre-Bid meetings are conducted for all solicitations(Mean=3.80).

**Table 2: Solicitation process**

Statements	Mean	Std Dev.
The solicitation documents are always clear	3.53	1.13
Open solicitation is used mostly compared to other solicitation methods	3.37	1.31
There is transparency in the solicitation process	3.64	1.15
Bidders have freedom to ask questions during the solicitation process	3.89	0.67
Pre-Bid meetings are conducted for all solicitations	3.80	0.91

**Source selection on performance of donor funded projects in Kenya.**

The study sought to establish influence of source selection on performance of donor funded projects in Kenya. The study established that there is availability of there is effective contract monitoring and control systems (Mean=3.97). The study also found that both parties to the contract abide by the contract to a great extent, breach of contracts lead to legal action (Mean=3.77). The study also found that there is necessary capacity amongst the project team for contract administration (Mean=4.23). Finally, the study found that there is contract closure at the end of a project (Mean =4.01); there are mitigation measures in place for the continuity of contracts (Mean=3.87).

**Table 3: Source selection**

Statements	Mean	Std.
Availability of effective contract monitoring & control systems	3.97	1.09
Parties abide to the contract	3.77	1.10
Breach of contracts leads to legal action	4.00	0.75
There is necessary capacity amongst the project team for contract administration	4.23	0.62
There is contract closure at the end of a project	4.01	0.75
There are mitigation measures in place for the continuity of contracts	3.87	0.23

### Contract administration Influence performance of donor funded projects in Kenya.

The study sought to influence of contract administration on performance of donor funded projects in Kenya. The study findings indicated that there is availability of there is effective contract monitoring and control systems (Mean=3.97). The findings indicate that both parties to the contract abide by the contract (Mean=3.77), breach of contracts lead to legal action (Mea=4.01), there is necessary capacity amongst the project team for contract administration (Mean=4.23). There is contract closure at the end of a project; there are mitigation measures in place for the continuity of contracts (Mean=3.87).

**Table 4: Contract administration**

Statements	Mean	Std.
Availability of effective contract monitoring & control systems	3.97	1.09
Parties abide to the contract	3.77	1.10
Breach of contracts leads to legal action	4.00	0.75
There is necessary capacity amongst the project team for contract administration	4.23	0.62
There is contract closure at the end of a project	4.01	0.75
There are mitigation measures in place for the continuity of contracts	3.87	0.23

### Regression analysis

A multivariate regression model was applied to determine the relative importance of each of the four variable affecting procurement management processes. The regression model was as follows:

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

Using the values of the coefficients ( $\beta$ ) from the regression coefficient table 4.8 the established multiple linear regression equation takes the form of;

$$Y = 5.056 + 0.161X_1 + 0.422X_2 + 0.178X_3 + 0.207X_4$$

Where;

Constant = 5.056; when value of the independent variables are zero, the procurement management process would take the value 5.056.  $X_1 = 0.161$ ; one unit increase in procurement planning results in 0.161 units in the procurement process.  $X_2 = 0.422$ ; one unit increase in solicitation results in 0.422 units increase the procurement management process.  $X_3 = 0.178$ ; one unit increase in Source selection results in 0.178 units increase in procurement management process.  $X_4 = 0.207$ ; one unit increase in contract administration in 0.207 units increase in the procurement management process.

Ranking the predictors variables in terms of their individual influence on the procurement management processes, the table 4.6 shows the relative importance of each the predictions i.e. Solicitation (0.422), Contract administration (0.207), Source selection (0.178) and finally Procurement planning (0.161) respectively.

**Table 5: Regression Coefficient**

Model		Unstandardized Coefficients		Standardized Coefficients	T		Sig.	
		B	Std. Error	Beta	B	Std. Error		
1	(Constant)	5.056	3.061		1.652		.104	
	Procurement planning	.161	.073	-.204	-2.221		.030	
	Solicitation	.422	.079	.623	5.344		.000	
	Source selection	.178	.058	.375	3.063		.003	
	Contract administration	.207	.039	.472	5.328		.000	

### Model Summary

The results as shown in the table 4.9 indicates that the coefficient of regression,  $R = 0.803$  shows a good strength of the relationships between independent variables and the dependent variable. The coefficient of determination  $R^2 = 0.644$  shows the predictive power of the model and in this case 64.4% of variations in the procurement management processes is explained by the independent variables. The adjusted coefficient of determination  $R^2$  shows the predictive power when adjusted for degrees of freedom and sample size. In this case, after the adjustments 61.8% of the variations in the procurement management process is explained by the independent variables.

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803(a)	.644	.618	.78381

ANOVA findings as explained by the P-Value of 0.000 which is less than 0.05 (significance level of 5%) confirms the existence of correlation between the independent and dependent variables. The model shows the model fitness i.e. how well the variables fit the regression model. From the results,

the F ratio of 24.815 and the significance of 0.000 shows that there was not much difference in means between dependent and independent variables. The sum of squares gives the model fit and hence the variables fit the regression model.

**Table 7: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	61.144	4	15.286	24.882	.000(a)
Residual	33.789	55	.614		
Total	94.933	59			

### **Conclusion**

From the findings it was moderately that there are increased numbers of projects completed on time due to adherence to procurement plan. The study also found that all what is in the procurement plan is not procured on time this implies that donor funded projects are not completed on time and donor funded projects scope is not always achieved. The Project management process is poorly handled in procurement system during the implementation of the donor funded projects. However the study also concludes that open solicitation is used mostly compared to other solicitation methods; there is transparency in the solicitation process. This is due Bidders freedom to ask questions during the solicitation process and pre-Bid meetings are conducted for all solicitations for donor funded projects.

The study concludes that source selection influence performance of donor funded projects in Kenya. This is culminated by effective contract monitoring and control systems. The study also concludes that parties to the contract abide by the contract, breach of contracts lead to legal action.

### **Recommendations**

The study recommends that most expatriates engaged by the donors do administrative work of ensuring the proper procurement management process is followed. Some of those who are employed to do technical work do jobs that can also be done by locals without compromising the quality required; more so, they are paid very high remunerations which means very high percentages of the donation given go back to the donor country without complying project management process.

Timely completion of donor funded projects should be achieved by enhancing transparent procurement management process, employing monitoring and evaluation technique. Completion time of projects should be improved which will enhance the project management process. Use of two procurement systems like adoption of World Bank procurement system alongside country procurement system should be avoided and one considered efficient system adopted by all procurement entities.

Government should have project planning and management department with a scheme like other departments where only people qualified in project planning and management are employed to oversee project implementation in Government. What used to be planning unit was changed from Central Planning Unit (CPU) to Central Planning and Project Management Unit (CPPMU) to rope in project management; however, this not enough as the engaged are all of economic background and not project planning and management process specialist.

## References

- ADB. (2016). "Economic performance." <http://www.adb.org/countries/highlights/SRI.asp>, 2016
- African Development Bank (AfDB), (2009) Country Strategy Paper Mid-Term Review, Progress Report. Country Regional Department, retrieved from: <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project>.
- African Development Bank (AfDB), (2011) Country Strategy Paper Mid-Term Review, Progress Report. Country Regional Department, retrieved from: <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project>.
- Arrow S. (2008). An overview of EC policy on public procurement: *European Journal of Operational Research*, 202(1), 16-24
- Basheka, B. C. (2004). Procurement Planning and Accountability of Local Government Procurement Systems in Developing Countries: Evidence from Uganda. *Journal of Public Procurement*, 8 (3), 379-406.
- Brown, B., & Hyer, N. (2010). *Managing Projects: A Team-Based Approach*. Singapore: Mc Graw-Hill.
- Chandra, P. (2010). *Projects: Planning, Analysis, Review*. Retrieved from [www.ddegjust.ac.in/studymaterial/mba/fm-405.pdf](http://www.ddegjust.ac.in/studymaterial/mba/fm-405.pdf)
- Charles. D. (2009). *Procurement technology success secrets*. Retrieved from <http://www.nextlevelpurchasing.com/procurement-technology.html>
- Compton, D. (2007). *Purchasing and supplies chain Management*. (3rd Edition). New York: Pearson Publishers
- Helmsing, A. H. J. (1995). *Local Government Central Finance. An Introduction*: New York: McGraw-Hill.
- Hjertholm, P., Laursen, J., & White, H. (2013). *Foreign aid and the macro economy. ForeignAid and Development: lessons learned and directions for the future*. London: Routledge.
- Kenya National Audit Office Report. (2010). *Financial Audit Report of the Kenya Civil Aviation Authority*. Nairobi. Government Printer.
- Kippra, (2006). *Public procurement policy in Kenya: The need for a coherent policy framework*. Policy brief no. 3/2006
- Kothari, C. (2004). *Research Methodology, Methods and Techniques* (2<sup>nd</sup> Ed). New Delhi: New Age International Ltd.
- Lancaster, C. (1999). Aid effectiveness in Africa: The unfinished agenda. *Journal of African Economies*, 8(4), 487-503.
- Mamiro, A. (2010). Evaluation of the implementation of public sector supply Chain management and challenges: A case study of the central district municipality, West province, South Africa. *African Journal of Business Management*, 2(12), 230-242.
- Meredith, J. & Mantel, S. (2012). *Projects Management: A Managerial Approach*. (8<sup>th</sup> Ed.). Singapore: John Wiley & Sons, Inc.
- Muralidharane, K. Tahririet, L. Minner, S. (2012). *Strategic safety stock in supply chains*. New York: Springer.

- Mugenda, C. & Mugenda, O. (2003). *Research Methods; Quantitative and Qualitative Approaches*. Nairobi Acts Press.
- Ngugi, K. & Mugo, H. (2012). Internal factors affecting procurement process of supplies in the government ministries. *Journal of supply chain Management*, 44(12), 144-152.
- Oladipo, J. (2008). Project Planning and Implementation at the Local Government Level: Lessons of Experience. *European Journal of Social Sciences*, 6(4), 120-126
- PPOA, (2015). Assessment of the Procurement System in Kenya Report: A report by PublicProcurement Oversight Authority, Nairobi.
- Rumbaugh, M. G. (2010). Understanding government contract source selection. Vienna: Management Concepts.
- Saunders, K. Gronhaug S., Kenneth L. Simons, & Tomas Lindstrom.(2005). Ownership Change, Productivity, and Human Capital: New Evidence from Matched Employer- Employee Data in Swedish Manufacturing. *Paper presented at the BER/CRIW Conference on "Producer Dynamics: New Evidence from Micro*.
- Siegel, S., (2010). *Nonparametric Statistics for the Behavioral Sciences*. New York: McGraw-Hill Publishing Co. In.
- Thai, K. V. (2001). *Towards New Horizons in Public Procurement. Towards Horizons in Public Procurement Press*. New York: Springer.
- World Bank, (2005). *Sub-Saharan Africa: From crisis to sustainable growth: A long-term perspective study: Publication summary*. Washington D.C: The World Bank
- World Bank, (2007). *Sub-Saharan Africa: From crisis to sustainable growth: A long-term perspective study: Publication summary*. Washington D.C: The World Bank