

# **Factors Affecting Performance of the Procurement Function in Kenyan Public Secondary Schools: A Case Study of Gatundu District**

**Kinuthia Emmah Wahu, Prof G.S. Namusonge, Prof. Chegge Mungai and Ogol Chilion**

Jomo Kenyatta University of Agriculture and Technology P.O. Box 62000-00200 Nairobi, Kenya  
School of Entrepreneurship Technology Leadership and Management.  
Email: emmahkinuthia@gmail.com

DOI: 10.6007/IJARBSS/v5-i4/1572 URL: <http://dx.doi.org/10.6007/IJARBSS/v5-i4/1572>

## **Abstract**

Procurement performance contributes to the overall performance of an organization through cost savings, improved quality and reduced lead times which leads to internal customer satisfaction. The study sought to analyze the factors affecting the performance of the procurement function in Kenyan public secondary schools. The study was carried out in Gatundu South District. A Case Study approach was adopted in which case a sample size of forty five was selected. The questionnaire was used as the main tool of data collection and a response rate of 93.3% was achieved. Descriptive research design was adopted for the study. Key findings included the fact that all the three variables affect procurement performance in public schools with 100% of the respondents agreeing to the proposition that these three variables affect procurement performance. Amongst the three variables under consideration, competitive bidding was found to affect procurement performance to the greatest extent followed by the prevailing legal framework. The least influencing factor on procurement performance was found to be aggregation of procurement.

**Key Words:** Procurement performance; Competitive bidding, legal framework; aggregation of procurement.

## **1.0. Introduction**

Procurement practice in Kenya has gone through a lot of reforms since independence. At 1959, Supplies and Transport departments existed for the entire government under the Ministry of Works. Later Market Research, Inspection of Materials and Central Tender Board (CTB) were established and were responsible for procurement and tender award. Later reforms involved the movement of the Central Tender Board within the government system. Of importance to note is the fact that procurement was in the few years after independence largely done by Crown agents due to lack of capacity in the local market. In 1978, the East African Community developed procurement guidelines under the East African Supplies Manual. This document replaced the function of the Crown agents and it was used for all procurement in the Republic.

A major review of the country's procurement system was undertaken in 1999 and the review established several weaknesses in the system: no uniform procurement system for the public sector as a whole; lack of penalties/sanctions against persons who breached the regulations other than the internal disciplinary action; the Supplies Manual did not cover procurement of works; dispute settlement mechanisms relating to the award procedures were weak and unreliable for ensuring fairness, transparency and accountability and records of procurement transactions in many cases were found to be inaccurate, incomplete or absent which led to suspicion of dishonest dealings at the Central Tender Board. This discoveries led to scrapping of CTB in 2001. The Public Procurement and Disposal Act (2005) and the Regulations of 2006 were later drafted. This is the legal framework that governs procurement practice in Kenya today and it has to great extent addressed the issues that arose from the review of 1999.

However, even with such clear procurement law, public procurement process is still shrouded by secrecy, inefficiency, corruption and undercutting (Onsongo et al, 2012). Clearly, there are some factors underlying procurement practice that still make it possible for practitioners to perpetrate these evils, which have an impact on procurement performance in many government organizations including Public Schools.

### **1.1 Statement of the Problem**

According to Wanyama (2010) the disbursement and utilization of funds meant for Free Secondary Education (FSE) program is subject to the provisions of the Government Financial Management Act, 2004. A survey carried by the Kenya Publishers Association on booksellers indicates how book distributors collude with school principals to embezzle money set aside for free education in public secondary schools in Kenya (Wanyama, 2010). Onsongo et al (2012) observed that although several secondary schools in Kenya have taken steps to reform their public procurement systems, the process is still shrouded by secrecy, inefficiency, and corruption and undercutting. In all these cases, huge amounts of resources are wasted. Seemingly, there are underlying factors in procurement practice that still make it possible for practitioners to perpetrate these evils, which have an impact on performance of the procurement function in many government organizations even with the current legal, policy and regulatory frameworks. The researcher went into the field to investigate the factors that lie at the heart of the school procurement units and influence procurement performance.

### **1.2 Objectives of the Study**

The general objective of the study was to analyze the factors that affect performance of procurement function in Kenyan public schools.

#### **Specific Objectives of the study were:**

- i. To investigate how competitive bidding affects performance of procurement function in public schools.
- ii. To assess the extent to which aggregation of procurement impacts on the performance of the procurement function in public schools.

- iii. To investigate the effect of legal framework on performance of the procurement function in public schools.

## **2.0 Literature Review**

The chapter discussed the literature review of the study. The main aim of the review was to study the existing information by various scholars in relation to the variables. The literature was obtained from the World Wide Web, journals, books, periodicals and reports.

### **2.1 Theoretical Framework**

#### **2.1.1 Transaction Cost Theory**

Grover and Malhotra (2003) in their well-cited study conducted an extensive investigation on the application of transaction cost theory in supply chain management. In their empirical study of 1000 purchasing managers, Grover and Malhotra (2003) conclude that transaction cost theory applies to organizational supply chain management in four facets: effort, monitor, problem, and advantage. Effort to “build and maintain the relationship” with suppliers; cost of “monitoring the performance of suppliers”; resolving the problems that arises in the business relationships; and engagement of suppliers in “an opportunistic behaviour”. However, transaction cost theory is primarily concerned with the direct economic factors in organizations and hence fails to address some important aspects of the operation of organizational supply chain, including personal and human relations among other actors in the supply chain.

#### **2.1.2 Traditional Purchasing Theory**

According to Timothy (2012) traditional purchasing encompasses a 9-step process from product research to posting the expense in the general ledger. It usually involves a central procurement department, accounts payable and a central receiving department. The logical flow of purchasing steps according to this theory is: Research products; Create requisition; Requisition approval; Purchase order; Supplier creates sale order; Receipt of goods; Supplier invoice received; paying supplier; and Posting expense to the general ledger.

## **2.2 Empirical Review of Variables**

### **2.2.1 Competitive Bidding**

Competitive bidding has long been an essential component of competition in the business arena. While a traditional method used by industrial firms in choosing suppliers/vendors and in making major purchases, competitive bidding has become increasingly important to the service sector (Green, Zimmer and Stadman, 1994). With the continually increasing emphasis on controlling the spiraling costs of health care delivery, competitive bidding has been prominently presented as an integral part of what has become known as the concept of “managed competition” (Paringer and McCall, 1991).

### **2.2.2 Aggregation of Procurement**

Giving a single supplier more reliable and greater volumes of work allows the supplier to discount price by volume yet protects the supplier's cost structure. Furthermore, collaboration within alliance structures allows a critical assessment of risk sharing and appropriate risk

allocation; improving logistics cycle times and an opportunity to work on mutual supply chain opportunities or constraints (Rogers, 2005). Cost structures in most firms lead to significant leverage potential for purchased items; even minor reductions in purchasing costs result in substantial improvements in profits (England & Leenders, 1975; Stimson, 2002). For some time now, however, organizations have been moving towards sole-sourcing, in the process considering multiple selection criteria. Choosing a vendor has consequently become a complex and important facet of procurement. It should therefore be readily apparent that vendor selection is a multicriteria decision and one that tends to be more strategic than tactical (Seydel, 2005).

### **2.2.3 Legal Framework**

The Public Procurement and Disposal Act (2005) is defined as an ACT of Parliament to establish procedures for efficient public procurement and for the disposal of unserviceable, obsolete or surplus stores, assets and equipment by public entities and to provide for other related matters, (PPDA 2005). The purpose of the Act is to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to achieve the following objectives : to maximize economy and efficiency; to promote competition and ensure that competitors are treated fairly; to promote the integrity and fairness of those procedures; to increase transparency and accountability in those procedures; and to increase public confidence in those procedures; to facilitate the promotion of local industry and economic development (PPDA, 2005).

### **2.3 Measuring Performance**

According to Murray (2012) measuring purchasing performance is important as the purchasing department plays an ever increasingly important role in the supply chain in an economic downturn. A reduction in the cost of raw material and services can allow companies to competitively market the price of their finished goods in order to win business. An obvious performance measure of the success of any purchasing department is the amount of money saved by the company. However there are a number of performance measurements that businesses can use when they measure purchasing performance: these performance measures typically revolve about efficiency and effectiveness.

## **3.0 Research Methodology**

The study adopted a Descriptive Research Design. This design gives quantitative and qualitative insight into the opinions and attitudes of respondents in different environments that can easily be compared (Orodho, 2002). The total number of schools in the district was twenty seven (County Education Office-Gatundu, 2013). As public procuring entities, education institutions are required by the PPD Act 2005 to establish procurement committees to be responsible for procurement at various levels. The committees should have at least three members, (PPDR

2006). The target population consisted of committee members (three) per school, therefore, the target population were all the 81 staff involved in school procurement.

The target population 81 was too large given that the schools are scattered over a wide geographical area. This prompted the researcher to calculate a reasonable sample size to allow for economic data collection. To determine the sample size,  $n$ , for the target population  $N$ , the study adopted a simplified formula by Yamane (as cited in Israel, 1992) as shown below.

$$n = \frac{N}{1 + N(e)^2}$$

**Source: Israel, 1992**

Where;

$n$  = optimum sample size,

$N$  = number of staff in the schools

$e$  = probability of error (i.e., the desired precision, e.g., 0.1 for 90% confidence level).

The target population of secondary schools in Gatundu district was 81; implying  $n$  was 45 as derived below:

$$\frac{n = 81}{1+81(0.1)^2} = 44.75$$

$$n \approx 45$$

The questionnaire was the main tool of data collection for this research work. The questionnaire incorporated both open and closed ended questions. The open ended questions enabled collection of important qualitative data while the closed ended questions were used to collect quantitative data.

## **4.0 Results of the Study**

### **4.1 Competitive Bidding**

Competitive bidding is where procurement of particular commodities is subjected to many bidders who are measured against some set performance standards. Every bidder has an equal chance of being selected. The research revealed that competitive bidding indeed affects procurement performance. It calls for bidders to offer competitive prices as well as quality in order to win the tenders. At least one respondent expressed the concern that goods and services are supplied by 'who knows who' in the Board of Governors. This sentiment is worth consideration since it is a common occurrence even in other sectors where senior management try to influence the procurement decisions in their favor. Complexity of tender documents and time consumption are from the study the major problems that face competitive bidding in as far as school procurement is concerned. Only 33% of the respondents said that competitive bidding is practiced in their schools. This is probably because the school administrators would

rather use other ways of procuring to serve their own interests. The table below reflects the perception of respondents towards the challenges of competitive bidding.

Table 4.1 Perception of respondents regarding the challenges of competitive bidding

Parameter	Strongly agree		Neutral		Disagree		Strongly disagree		TOTAL		
	F	%	F	%	F	%	F	%	F	%	
Complexity of tender documents discourages suppliers from participating in the procurement process	7	16.7	23	54.8	5	11.9	6	14.3	1	2.4	<b>42</b> 100
Competitive bidding is time consuming	4	9.5	26	61.9	4	9.5	5	11.9	3	7.1	<b>42</b> 100
Competitive bidding is too expensive for a small procuring entity such as schools	5	11.9	17	40.5	9	21.4	7	16.7	4	9.5	<b>42</b> 100
Competitive bidding does not guarantee supplier reliability	4	9.5	22	52.4	6	14.3	7	16.7	3	7.1	<b>42</b> 100
Competitive bidding is practiced in my school	5	11.9	10	23.8	12	28.6	5	11.9	10	23.8	<b>42</b> 100

#### 4.2 Aggregation of Procurement

Aggregation refers to grouping several things together or considering something as a whole. It can also be said to be the act of gathering something together. The Public Procurement Regulations, 2006 states that one of the functions of the Tender Committee in a Procuring Entity is to advise the entity on aggregation of procurement. Inadequate funds at the beginning of the school term was cited by 80% of the respondents as the major hindrance to procure in lots. This is probably because most of the parents are not able to clear their fees balances at the

beginning of the term and the fact there are delays by the Ministry of Education to release funds for free education. 68% of the respondents said that aggregation of procurement attracts stock holding costs, therefore, many schools would rather do without it. Indeed, only 47% of the respondents indicated that this was practiced in their schools. Such stockholding costs include storage space, deterioration, security, theft, pilferage, shrinkage, insurance and obsolescence. The table below reflects the effects of various parameters on aggregation of procurement according to the respondents.

Table 4.2 Understanding of respondents on aggregation of procurement

Parameter	Strongly agree		Agree		neutral		Disagree		Strongly disagree		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Aggregation of procurement attracts inventory holding costs	5	12	26	61.9	9	21	2	4	-	42	100	
Lack of storage facilities discourages schools from buying supplies in large scale	14	33	13	31.0	10	23	5	11	-	42	100	
Inadequate funds at the beginning of the school term bars schools from buying supplies in large scale	20	48	16	38.1	4	9	1	2	1	2.4	42	100
My school practices aggregation procurement	6	14	15	35.7	7	16	6	14	7	16.7	42	100

### 4.3 Legal Framework

Legal framework refers to the laid down procedures put in place to govern the performance of procurement in legal institutions. 61.9% of the respondents felt that this is a factor that really affects the performance of the procurement function in schools. Notably, 19% of the respondents felt that the school administrators do not sensitize, say through training, the staff on procurement legal framework. 73% of the respondents felt that adherence to legal requirements makes the procurement process too time consuming. 19% of respondents were

not aware of any existing legal framework. At least 60% of the respondents felt that the prevailing legal framework is too bureaucratic and encourages corrupt practices. Following these, only 18% of the respondents indicated that their school follows the laid down legal procedures. The table below shows the respondents interpretation of the various parameters that go along the legal framework.

Table 4.3 Understanding of respondents regarding procurement legal framework

Parameter	Strongly agree		agree		neutral		Disagreed		Strongly disagree		TOTAL	
	F	%	F	%	F	%	F	%	F	%	F	%
Adherence to the legal framework makes procurement process time consuming	16	38	17	41	7	17	2	5	-	-	42	100
The prevailing legal framework is too bureaucratic and encourages corrupt practices	8	19	19	45	12	29	2	5	1	2	42	100
Policies provide standard understanding of the procurement process	8	19	21	50	13	31	-	-	-	-	42	100
The legal framework is followed in the procurement processes in my school.	7	17	11	23	12	28	9	21	3	7	42	100

#### 4.5 Performance of Procurement Function in Schools

In light of cost savings, quality and lead times competitive bidding affects procurement performance to the greatest extent with 73% of the respondents saying that it affects procurement to a large extent followed by legal framework, 58%, whereas aggregation of

procurement affects procurement performance to the smallest extent, 47%, amongst the three variables. 58% respondents said that legal framework affects procurement performance substantially whereas only 47% respondents were for the opinion that aggregation of purchase affects procurement performance substantially.

### **Conclusion**

The conclusions that were made in this study were based on the findings discussed above and the responses of the respondents. They were based on the independent variables of the study that were; competitive bidding, aggregation of procurement and the procurement legal framework. As regards competitive bidding, it was concluded that indeed it improved procurement performance in schools. This was because respondents agreed that it reduced cost of commodities and also led to more tenders coming in. this was because competitive bidding seemed to be the most open way in which trust was build up within the bidding process and therefore opening avenues for many suppliers to participate. Major problems cited with Competitive Bidding included the fact that it was seen as time consuming and it brought along complicated details in the procurement process as well as increased details in tendering which affected the program of the school.

On the understanding of the respondents on various statements regarding competitive bidding, it was concluded that the complexity of tender documents discourages suppliers from participating in the procurement process. Competitive bidding usually requires voluminous documentation and some of them might seem complicated. The complex nature discourages suppliers from participating in the exercise because most of them might lack proper documentation. It was also concluded that competitive bidding was too expensive for small procuring entities such as schools. Finally, it was also concluded that competitive bidding does not guarantee supplier reliability. For the institutions that practiced competitive bidding, it was concluded that this practice improved the performance of procurement functions in those institutions.

Aggregation of procurement refers to giving a single supplier more reliable and greater volumes of work that allows the supplier to discount price by volume yet protects the supplier's cost structure. Aggregation of procurement indeed influenced the performance of the procurement functions in schools but more to the negative. This is because for those that practiced it, it was discovered that it encourages unhealthy competition among suppliers, it wastes a lot of time and affects school calendar to a great extent. It was also concluded that the practice leads to a lot of complications and the procurement procedures are not followed. Many of the respondents were not involved in the procurement procedures. It was further concluded that aggregation of procurement attracts inventory holding costs and therefore becoming very expensive to institutions that practice it. Many schools do not practice aggregation of procurement but to those who practiced, aggregation of procurement somehow improved the procurement functions.

The legal framework is the laid down procedures put in place to govern the performance of procurement in legal institutions. Procurement legal framework affects procurement performance more to the positive than the negative. This is because it ensured that the right

procedures were followed and carried out. Equally, it was followed in many institutions because the administrations could not wish to be accused of flouting the legal requirements relating to procurement. On the other hand, most of the projects undertaken were under the influence of Constituency Development Fund initiative which was done by the government and to create openness, these legal requirements had to be followed. Procurement legal framework eradicated corruption because rules governing the procurement process were clear and going against them was corruption.

It was also concluded that adherence to the legal framework makes procurement process too time consuming but on the other hand, it opens transparency and created trust to the procurement process. The prevailing legal framework is too bureaucratic but does not encourage corrupt practices in the procurement process. Many schools followed the legal framework in the procurement process leading to an improvement in performance of the procurement function.

Comparatively, competitive bidding affects procurement performance to the greatest extent with 76% of the respondents saying that it affects procurement to a very great extent and 49% great extent. Competitive bidding is followed by legal framework whereas aggregation of procurement affects procurement performance to the smallest extent amongst the three variables. 58% respondents said that legal framework affects procurement performance substantially whereas only 47% respondents were for the opinion that aggregation of purchase affects procurement performance substantially.

## **Recommendations.**

### **Training**

Though training was not a variable considered under this study, respondents demonstrated poor understanding of the legal framework, competitive bidding and aggregation of procurement, this is judged by some respondents remaining neutral to some of the statements posed for their response. This was also evident when respondents gave conflicting responses. Training can be done on the job or by incorporating procurement courses into teacher training curricula at degree, diploma and certificate levels. Training would arm committee members with appropriate skills for their roles.

### **Engaging procurement professionals in school procurement units**

Hiring procurement professionals to run the school procurement function would be the other alternative. Such professionals would properly interpret procurement law and policies for the schools to be on the safe side. They would also advise the schools on the importance of aggregation of procurement and outsourcing whenever the school lacks the capacity to carry out certain procurement activities. This would be in line with the requirements of PPOA as per the PPDA (2005). One of the functions of PPOA as cited in part II 9 (v) of the PPDA (2005) is to ensure that PEs engage procurement professionals in their procurement units.

### **Joint Committees**

Tender Committees as required in the Second Schedule should consider forming joint committees with neighboring schools or colleges or make use of a procuring agent in accordance with Section 28 of the PPD Act. Alternatively, they should consult PPOA for

direction (Public Procurement Manual for Schools and colleges, 2009). The joint committees would bring expertise together thereby assisting the schools that lack such expertise for complex procurements.

### **Consolidated Purchase**

Some capital purchases can be purchased jointly and shared by several schools these include school buses which lie idle and gather costs most of the time, photocopier machines and other common user capital items. This would be in line with the requirements of Public Procurement Manual for Schools and colleges, (2009). Centralization of procurement of some common supplies by the Ministry Headquarters is within the policy of the Ministry to realize economies of scale and save costs that arise from fragmented and decentralized procurements by individual schools and colleges. Such policies should be adhered to until otherwise reviewed by the Accounting Officer and the Ministry of Education.

### **References**

- Armstrong, M. (2008). *Human Resource Management*. (5th Ed.). Washington DC: Kogan Page Publishers.
- Andrew, M. (2008). Procurement Reforms in Kenya. *Journal of Economics*, 22(1), 23-50.
- Anderson, J.C., Hakansson, H. and Johanson, J. (1994). Dyadic Business Relationships within a Business Network Context. *Journal of Marketing*, Vol. 58 No. 4, 1-15.
- Cooper, D. R. and Schindler, P.S. (2003). *Business Research Methods*. (8<sup>th</sup> Ed.) McGraw-Hill: New York.
- Defee, C.C., Esper, T. & Mollenkopf, D. (2010). Leveraging closed-loop orientation and leadership for environmental sustainability. *Supply Chain Management: An International Journal*, Vol. 14 No.2, 87-98.
- Dwyer, F.R. (1987). Developing Buyer-Seller Relationship. *Journal of Marketing*, Vol. 51, 11-27.
- Edwards, W., & Barron, F. (1994). SMARTS and SMARTER: Improved simple methods For multi attribute utility measurement. *Organizational Behavior and Human Decision Processes*, 60, 306- 325
- Fishburn, P. (1970). *Utility Theory for Decision Making*. New York: Wiley.
- Foss, N. J. (1999). First Economist Contributions to Political Economy. *Edith Penrose, Economics and Strategic Management, Contributions to Political Economy*.
- Green, R., Zimmer, W., and Steadman, E, (1994). The Role of Buyer Sophistication in Competitive Bidding. *Journal of business and industrial marketing* vol. 9 No. 1 1994 51-59. MCB University.
- Government of Kenya. (2005) *Public procurement and Disposal Act 2005*. Kenya Gazette supplement No.77 (Act No.33). Nairobi: Government printer.
- Government of Kenya. (2006). *Public procurement and Disposal Regulations 2006*. Kenya Gazette supplement No.92 (Acts No.33). Nairobi: Government Printer.
- Government of Kenya. (2005). *Transparency international Report on Kenya Public procurement systems*. Nairobi: Government printer

- Grover, V. & Malhotra, M. K. (2003). Transaction cost framework in operations and supply Chain management research: theory and measurement. *Journal of Operations Management*.
- Harkonen, K., Ulkuniemi P., & Tahtinen J. (2010). *Managing Competitive Bidding in the Finish Healthcare Sector*. vol 33 No. 2 pp 145-160. Emerald Group Publishing Ltd.
- Hakansson, H. & Johanson, J. (1992). *A model of Industrial Networks*, in Axelsson, B. and Easton, G. (Eds), *Industrial Networks: A New View of Reality*. London: Routledge.
- Israel, G.D. (1992). Determining the sample size (PEOD6). Florida: Gainesville: <http://edis.ifas.ufl.edu/pd006>.
- Kothari, C. R. (2006). *Research Methodology: Methods & Techniques*. (1st ed.). Nairobi: New Age International Publishers.
- Little, D.A. (2009). *Procurement Performance Measurement*: [http://www.adl.com/procurement\\_performance\\_measurement](http://www.adl.com/procurement_performance_measurement)
- Lysons, K. (2007). *Purchasing and Supplies Chain Management*. (5th ed.). Mason, NJ: Pearson Publishers.
- Mark, A. & Scott, H. (1992). *Management in the National Health Service*, in Willcocks, L. and Harrow, J. (Eds), *Rediscovering Public Service Management*. McGraw Hill: London.
- Mugenda, O. & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: ACTS.
- Murray, M. (2012). *Measuring Purchasing Performance*: [http://www.adl.com/procurement\\_performance\\_measurement](http://www.adl.com/procurement_performance_measurement)
- Ngechu, M. (2004). *Understanding the Research Process and Methods. An Introduction to Research Methods*. ACTS Press, Nairobi.
- Onsongo, E.N. (2002). Challenges facing procurement committees in implementing procurement Act: A Case Study of secondary schools in Kisii County. *Elixer International Journal*, Vol. 4 No. 9
- Onyinkwa, J. (2013). Factors influencing compliance of procurement regulations in public secondary schools in Kenya: A Case Study of Nyamache District Kisii County. *Interdisciplinary Journal of Contemporary Research in Business*, Vol.4 No. 9.
- Olkkonen, R., Tikkanen, H. & Alajoutsija-rvi, K. (2000). The Role of Communications in Business Relationships and Networks. *Management Decision*, Vol. 38 No. 6.
- Olson, D. (1996). *Decision Aids for Selection Problems*. Berlin: Springer- Verlag.
- Orodho, C.R. (2009). *Elements of Education and Social Science Research Methods*, (2nd ed.). New Delhi: Kanezja Publishers.
- Pierterson, J. H. & Marjolein, C. J. (2012). Professional Discourses and Resistance to Change. *Journal of Organizational Change Management* pp. 798 Vol. 25 No. 6, 2012 818 Emerald Group Publishing Limited
- Pitelis, C. N. & Wahl, M. W. (1998). Edith Penrose: Pioneer of stakeholder theory. *Long Range Planning*.
- Public Procurement Oversight Authority. (2009). *Procurement Manual* <http://www.ppoa.ac.ke>.
- Public Procurement Oversight Authority. (2013). *Procurement Manual-Schools and Colleges* <http://www.ppoa.ac.ke>

- Rogers, A. (2005). Optimizing supplier management and why co-dependency equals mutual success. *Journal of facilities management* vol. 4 No. 1 Emerald group publishing ltd.
- Seydel, A. (2005). *Supporting the Paradigm Shift in Vendor Selection: Multicriteria Methods for Sole Sourcing*. USA: State University.
- Salminen, A. (2004). *Hallinnon kehittämiskeskus Hallintotiede, organisaatioiden hallinnolliset perusteet*. Edita: Helsinki.
- Stimson, J. (2002). *Procurement performance optimization: 2002 International Conference Proceedings*. USA: Institute for Supply Management.
- Timothy, M. (2012). Traditional Procurement Model. *Journal of Purchasing*.
- Wanyama, J. (2010). *The effectiveness of procurement regulations in Kenya*: <http://www.oecd.org>.