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A CASE OF MINISTRY OF EDUCATION**

King'oo, D. M., & Muli, S.

**INFLUENCE OF PROCUREMENT PRACTICES ON ORGANIZATIONAL PERFORMANCE IN KENYAN PUBLIC SECTOR.
A CASE OF MINISTRY OF EDUCATION**

King'oo, D. M.,^{1*} & Muli, S.²

^{1*} Master Candidate, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya

²Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya

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ABSTRACT

This study examined the influence of procurement practices on organizational performance in the ministry of education. The variables of study were; inventory control, contract management and organizational performance. The target population was 150 employees working in procurement department in the ministry of education headquarters in Nairobi. A total of 45 respondents constituting all levels of employees in Jogoo house were selected using stratified sampling technique. Data collection used the questionnaire as the research instrument. Pilot testing of the research instruments to establish their validity and reliability was also conducted. The descriptive statistics used included frequencies, means, standard deviation, correlations and regression analysis generated by the SPSS data analysis tool. The findings revealed a positive correlation between inventory control and organizational performance and a positive correlation between contract management and organizational performance at the ministry of education. The study recommended that the national government, resource allocation departments and all the stakeholders in the ministry of education should organize sensitization seminars and workshops to enhance capacity building among the workers on contract administration in order to improve the quality of inputs. There is need for a similar study targeting employees in all sectors to compare results and bridge the gap regarding the findings.

Key Words: *Inventory Control, Contract Management, Organizational Performance*

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INTRODUCTION

Public procurement has been attracting attention from many scholars and policy makers in the country. This has been necessitated by rampant corruption cases where many loopholes in the process have been used by the corrupt to enrich themselves. To reform the process in public procurement modernization of the current process is inevitable. In this regard concerns related to use of funds efficiently forms the basis of this research.

In India a study was conducted on Mardi (procurement system) where Ishak and Said (2015) used face to face interviewing of various procurement officers who handled it. They found out that Mardi reformed its procurement system some years ago, and adopted e-procurement system in direct purchase process. The system was developed by the ministry of finance to be used by all the statutory bodies (Ishak & Said, 2015). Despite the system being in early phases it exhibited high levels of integrity, efficiency, transparency which earned accolade from the public.

Hassan et al., (2014) in their study in New Zealand's SMEs, found out that the electronic functionalities that rely on technologies were widely used. However complex technologies such as e-tender, e-auction among others were not highly embraced as they came with higher cost. They also found out that majority of SMEs used e-procurement to buy goods than services (Hassan et al., 2014 p.269). The study was descriptive and narrowed down exclusively on Manufacturing SMEs, therefore require a broader research.

In the UK Walker & Brammer (2009) investigated sustainable procurement in public sector and reported the various differences in procurement processes among public sectors. These differences included local authorities buying more from the local market, health came last in many categories, while education sectors appeared to emphasize on

environmental feature of procurement. In majority of the instances cost was found to be a consistent barrier while top managers as the best facilitators. However the research was having a bias as employees who were for sustainable procurement responded to the interview in large numbers.

In South Africa public procurement has been marred by rampant corruption and discrimination (Munzhedzi, 2016). The problem started from the pre-democratic era which had a procurement system characterized by prejudices inclined to the whites and ignored the black majority. To address these problem new measures and reforms were put into place to govern the public procurement. However due to political interference, blatant non-compliance, inexperienced officials among others the policy framework have been considerably undermined. Corruption internationally is a universal problem but very widespread in Africa and other developing countries.

Nevertheless, reforms in South Africa were started to enhance responsible governance and address socio-economic objectives (Dza, Fisher & Gapp, 2013). In Africa obstacles to feasible acquisition of goods and services; absence of abilities and capacity, lack of adherence to set guidelines, lack of proper planning, fraud, unethical behavior, corruption, inefficient and decentralized procurement systems, among others. Ameyaw, Mensah & Osei-Tutu, (2012) in Ghana the government established a legal framework to guide public procurement by guaranteeing integrity, transparency, and accountability. The established rule of law creates an investor friendly environment that is vital for growth of county's economy.

Dza, Fisher & Gapp, (2013) summarized public procurement progress challenges in Africa as a whole. They reported that Africa countries reforms are necessitated by competition build on accountability, improve transparency, among others. In some countries the reforms have brought modernity,

competition and fairness in this process. Some international lenders such as IMF, World Bank, among others, put procurement reforms as one of their lending requirements to compel some African countries that are rigid to change, to initiate procurement reforms.

These donors view sustainable procurement as one of indicators that their loans will be repaid as the money will be channeled to the functions it was borrowed to accomplish (Dza, Fisher & Gapp, 2013). In these developing countries the reforms have been taken a notch higher to include other elements of procurement such as the work force, organizational structures etc. This is after the realization that proper procurement process contributes to democratic governance and leads to prudent government spending.

Locally Ngugi and Mugo (2012) points out that procurement is governed and controlled by Public Procurement Act of 2005. The parliamentary act highlight practices of procurement and selling of used government equipment (the Act have been amended to be in line with the new constitution dispensation). In their research with the ministry of health, they found that it was affected by accountability. The process of procurement was highly abused by employees who would open briefcase firms and use unscrupulous means to award tender to these companies, later on they fail to supply the required items or even supply items of very low quality (Ngugi and Mugo, 2012).

The adoption of ICT in procurement process has lowered chances of corruption as it has taken over the process of tendering that is advertisement, prequalification, that has saved a considerable amount of money. ICT adoption enhances service delivery to suppliers and increased efficiency and transparency. The other aspect of procurement that has affected the process in Kenyan ministries is operating procedures. It brought conflict of interest in

setting up user charges for supply registration (Ngugi and Mugo, 2012 p.2333).

Statement of the problem

Government departments face a myriad of challenges in procurement of goods and services in Kenya. More than 234 billion shillings is spent annually on procurement but more than half of this budget is lost due to improper procurement practices. It's estimated that 12 of the national budget is lost due to exaggerated procurement quotations (KISM, 2016). The PPOA (2009) reported that most of procured goods and services in government departments were 60% above the market prices. For example, a whopping 33,061,925 shillings was lost in the Kazi Kwa Vijana initiative that was started in the year 2011 (Kamau, 2010).

As per Stratman (2007) factors, for example, poor records, long documentation process and wrong filing procedures in addition to absence of appropriate procurement plan and irregularities in reporting to PPOA and failure to use of standard documents are a conspicuous sign of poor procurement procedures. Annually, wastage in the government and overstated quotations in procurement practices is estimated to be three quarters of the national budget (ICPAK, 2016). The incompetence in the execution of procurement procedures and regulations in many government departments contribute to the loss of tax payer's money (Slayton, 2009). Rahi (2012) suggests that losses experienced in the procurement spending can be minimized if the procurement practices are properly implemented.

The challenges facing the ministry of education emanating from improper procurement practices are not new. In the year 2013, allegedly the ministry lost Ksh 4.2 billion in questionable procurement of the laptops for primary school pupils. The company that was awarded the tender to supply the laptops did not meet the requirements set out in the procurement procedures. The company was given special

treatment as it had access to information concerning tender awarding criteria. The bidders are not supposed to have access to this kind of information as it gives them an upper hand in the bidding process.

The company that was awarded the tender overpriced the cost of the laptops when the final quotations were submitted. Moreover, it was determined that the organization did not have a logistics system to supply the PCs to every elementary school in Kenya (KACC, 2015). This problem can be alleviated by the ministry of education investing heavily in effective procurement practices. A study that was carried out by the PPOA in the year 2016 revealed that procurement done by government departments were avenues for embezzlement of public funds because the goods were overpriced by 60%. It was revealed that public procurement was controlled by powerful individuals who control the costs in procurement practices.

The results were corroborated by OECD (2016) findings which established that lack of transparency in the procurement departments precipitates corruption that leads to loss of public funds and delivery of substandard goods and services. Research efforts by Slayton (2009), Kamau (2010) and Rahi (2012) that examined the way procurement practices were implemented in government departments were inconclusive hence left major gaps that this study sought fill. The present examination explored the influence of procurement practices on organizational performance in Kenyan public sector.

Study Objective

The general objective of the study was to investigate the influence of procurement practices on organizational performance in Kenyan public sector. The specific objectives were:-

- To explore the influence of inventory control on organizational performance in the ministry of education.

- To find out the influence of contract management on organizational performance in ministry of education.

LITERATURE REVIEW

Theoretical Framework

Partner Selection Theory

Studies that have been carried on Partner Selection Theory are limited in scope and have only focused on the principle of choosing partners as opposed to the process itself (Saffu & Mamman, 2000). This theory assumes that reasonable decision making practices are founded on definite selection procedure. Literature on this theory assumes that the selection process takes the form of a straight line from the beginning to the end. The partner characteristics may be less or more valuable depending on the rationale for alliance. The choice model is created dependent on the needs such partners characteristics that are of intrigue.

At last, partners are practically chosen, meeting the majority of the criteria. Some business partnerships are framed as because of individual ties between key choices stakeholders (Barringer & Harrison, 2000).

Theory of Economic Order Quantity

Inventory management is imperative in any organization. EOQ (economic order quantity) model have been used by many firms to avoid fluctuation of costs that would in turn lead to increased cost of sales, penalties, ware housing fees, and overtime payments, among others. In this model the firm or organization tries to minimize holding excess stocks (Agarwal, 2014). Holding too little or too much stock in any firm is comes with extra costs. Effective inventories management builds on firm's profits and maximizes returns on total assets. The model assists an organization to know the number of items to order, the most convenient time to do it, and how to order.

The EOQ model have been defined by various researchers, Agarwal (2014) adds that, for a working EOQ to be calculated, some assumptions have to be made. They include; demand for the goods has to be constant over a given time, the lead time should also be constant, store capacity should be large enough not to negatively affect the size of the order. The cost of ordering should not be related to the size of the order, the cost of holding stock and quantity of stocks should not be related. Having met the above requirement, the EOQ formula is given by;

$$EOQ = \frac{2CoD}{Cc}$$

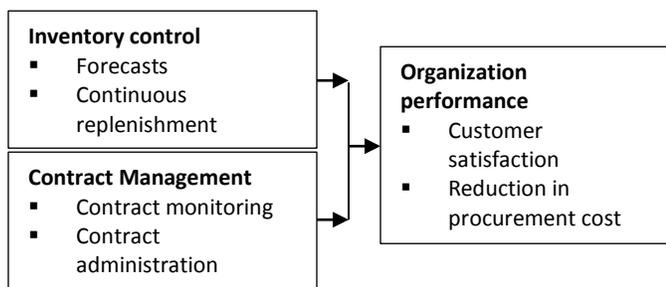
Where; Co is Cost of Ordering

Cc is Carrying Costs

D is Demand

In conclusion EOQ model is assisting organizations and corporates to reduce the ever rising inventory related challenges. Costs related to handling of inventories have been reduced or eliminated.

Conceptual framework



Independent variable

Dependent variable

Figure 1: Conceptual Framework

Source: Researcher (2019)

Empirical Review of Variables

Rao et al. (2004) explored the impact of SCM on firm performance. The examination announced that improved SCM were related with upgraded dimension of authoritative execution and firm's competitive edge. Competitiveness was found to essentially affect performance positively. Makena and Iravo (2014) investigated the impact of SCM on the

performance of Haco Industries Limited (Kenya). It was reported that the company practiced high level of SCM which had a significant influence on organizational performance. The SCM practices were found to be helpful in reducing the operation costs, improving customer satisfaction, reduction of lead time, fast response to market demands, product quality and increasing sale volumes. The researchers established that a combination of the SCM practices had a positive and significant impact on the performance of the organization. The study concluded that there is need for organizations to embrace SCM strategy that combines the best practices to enhance performance.

Relatedly, Ali et al. (2012) completed an examination to explore the impact of SCM on performance of the organization where their investigation offered an exact approval for any development that perceives five key measurements related with SCM strategies just as it clarifies the association among SCM techniques performance of the organization. consider 3 hypothesis: (1) performing operations alongside higher measures of SCM techniques result to competitive advantage; (two) performing operations alongside more elevated amount of SCM strategies have led to improved performance; (3) performing operations alongside higher measures of competitive advantage have resulted to improved overall firm performance. As to the target of investigating these hypotheses, this study was proposed.

Chon (2012) completed an examination to look at the impact of SCM practices on performance of the organization. The outcomes indicated that SCM practices that include data sharing, and lean practices were linked the firm performance. Three components of learning processes were observed to be intervening the connection between information sharing and lean practices toward non-financial performance. However, just a single learning process of knowledge application was found to partially

intercede on the connection between SCM practices of data sharing, client relationship, and lean practices on financial performance of the organization.

METHODOLOGY

This study employed case study research design to examine the association among the study variables. The target population of this study was 150 procurement staff in the supply chain department in the MOEST (MoEST, 2018). The sampling frame included 150 workers in the supply chain department in the ministry of education. A sample size of between 10% - 30% was considered representative of the target population (Borg & Gall, 2003). This investigation utilized stratified random sampling procedure to choose 45 respondents derived from the top level management, middle level management, low level management and clerks. The researcher utilized self-developed questionnaires to gather information. The research tools were administered by the researcher and picked the same

day through pick and drop approach, which was important for collection of primary data. The researcher used past published reports, books, articles, journal, articles and annual reports and financial statements in the ministry of education to collect secondary data. Data were screened to distinguish errors and omissions before data coding. The coded data were then run into SPSS data analysis program. The researcher collected quantitative data and analysed it using descriptive and inferential statistics. Inferential statistics involved the use of Pearson correlation analysis and regression analysis. The regression analysis equation was presented as follows; $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$

Y= Organizational performance

β_0 = Constant

X_1 = Inventory control

X_2 = Contract management

$\beta_1 \beta_2$ = Regression co-efficient

ϵ = Error term

FINDINGS AND DISCUSSION

Table 1: Reliability Statistics

Item	Number of Items	Cronbach's Alpha
Inventory control	4	.779
Contract management	4	.741

Table 1 indicated that the reliability coefficient for inventory control was 0.779 while that of contract management was 0.741. Kothari (2004) opines that a

coefficient of 0.7 or more is acceptable to give credible results in research. From the results obtained, the research instrument was reliable.

Table 2: Correlations between independent variables and dependent variable

		IC	CM	OP
IC	N	45	45	45
	R	1	-.001	.076
	Sig. (2-tailed)		.992	.621
CM	N	45	45	45
	R	-.001	1	.081
	Sig. (2-tailed)	.992		.596
OP	N	45	45	45
	R	.076	.081	1
	Sig. (2-tailed)	.621	.596	
	N	45	45	45

Note. IC-Inventory control; CM-Contract Management; OP-Organizational Performance; *r* - Pearson Correlation

The researcher aimed at establishing the nature of the relationship between inventory control and performance in the ministry of education. As indicated in table 1, there was a weak positive relationship, $r(45) = .076$; $P > .05$ between inventory control and organizational performance at the supply chain department in the ministry of education. The correlation was not significant. The results indicated that inventory control did not significantly influence organizational performance at the ministry of education. Even though the relationship was not significant, the findings were in line the results of studies conducted earlier (Namusoke, 2011; Munyao, 2015).

The second objective was to investigate the influence of contract management on performance in the ministry of education. The researcher used

correlation analysis and the results were shown in table 1. A weak positive correlation, $r(45) = .081$; $P > .05$ between contract management and organizational performance at ministry of education was found. The correlation was not significant implying that change in contract management does not significantly influence organizational performance. In a similar study, Mutua ,Waiganjo and Oteyo (2014) established a moderate relationship between contract management and organizational performance. Therefore, contract management at the MOE influenced organizational performance in the ministry of education to a small extent.

Regression analysis

A simple regression analysis was conducted to examine the prediction of organizational performance from inventory control and contract management. The results of the model summary and ANOVA were shown in table 2 and table 3 respectively.

Table 2: Regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.307a	.094	.086	2.51379

Note. Predictors: (Constant), contract management, Inventory control

Table 2 shoes that $R = 0.307$ which was a weak positive correlation. The table also revealed that $R^2 = 0.094$ meaning that 9.4% variation in performance at the ministry of education was explained by the

independent variables. These findings meant that a change in performance in the ministry of education was explained to a small extent by contract management and inventory control.

Table 3: Summary of regression model in the prediction of organizational performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	15.353	3.331		4.609	.000
Inventory control	.114	.144	.120	.787	.436
Contract management	.090	.140	.098	.647	.521

From the results in table 3, contract management had a positive but low predictive power on organizational

performance with the standardized coefficients of 0.098 and inventory control had a considerably higher

predictive power on the dependent variable with the standardized coefficients of 0.12 respectively.

SUMMARY

The first objective of the study was to investigate the relationship between inventory control and performance in the ministry of education. It was established that the supply chain department in the ministry of education does not do proper forecasting on the demand which negatively impacts on customer satisfaction. It was also revealed that lack of proper forecasting affected the quality of inputs in the ministry. Concerning continuous replenishment of goods at the ministry, the study established that this very important exercise was not continuously carried out. Lack of continuous replenishment of goods negatively affected the quality of inputs at the department. When the correlation analysis was run, the results showed a weak positive correlation between inventory control and organizational performance in the ministry of education. The correlation was not significant. The results indicated that inventory control does not significantly influence performance in the supply chain management in the ministry of education.

The second objective of the study was to investigate the influence of contract management on organizational performance in the ministry of education. The results of data analysis showed that contract monitoring enabled execution of contracts on time and hence customer satisfaction at the ministry of education. Effective contract management was found to improve the quality of inputs at the department. The findings of correlation analysis revealed a weak positive correlation between contract management and organizational performance at the ministry of education.

The results of regression analysis revealed that the prediction model for organizational performance from the independent variables was not significant. Inventory control and contract management had a

weak positive predictive power on organizational performance. On the other hand, procurement planning and supplier appraisal had a weak negative predictive power on organizational performance.

CONCLUSIONS

In the supply chain department proper forecasting on the demand was not properly done and it was found to affect customer satisfaction. Replenishment of goods was continuously done. This was found to affect the quality of inputs at the department. The correlation analysis revealed a weak positive correlation between inventory control and organizational performance.

The findings revealed that contract monitoring enabled execution of contracts on time and hence customer satisfaction. Effective contract administration was found to enhance the quality of inputs but it was unclear how contract execution influenced the quality of inputs at the ministry of education. There was a weak positive correlation between contract management and organizational performance.

RECOMMENDATIONS

Based the research findings, the study made the following recommendations to improve organizational performance at the ministry of education; the national government, resource allocation departments and all the stakeholders in the ministry of education should organize sensitization seminars and workshops for the employees on the significance of procurement planning on organizational performance. There should be sensitization and effective supervision on adherence to procurement policies in all government departments to ensure that employees appreciate and recognize that supplier appraisal plays a significant role in improving the quality of inputs.

The ministry of education should strive for proper and efficient inventory control to improve service

delivery and hence customer satisfaction. All government departments should enhance capacity building among the workers on contract administration in order to improve the quality of inputs. This will result to improvement in organization performance in the ministry of education.

Recommendations for Further Research

There is need for a similar study to be conducted in the private and public sector simultaneously to compare the findings and bridge the gap regarding the mixed findings.

REFERENCES

- Aladejebi, O. A., & Adedeji, A. O. (2015). Effect of procurement planning on the performance of selected agricultural firms in Ondo State, Nigeria. *Jorind*, 13(2), 34-46.
- Barringer, B. R., & Harrison, J. S. (2000). Walking a tightrope: Creating value through interorganizational relationships. *Journal of management*, 26(3), 367-403.
- Basheka, B. C. (2008). Procurement planning and accountability of local Government procurement systems in developing countries: Evidence from Uganda. *Journal of Public Procurement*, 8(3), 379-406.
- Brandmeier, R. A., & Rupp, F. (2010). Benchmarking procurement functions: causes for superior performance. *Benchmarking: An International Journal*, 17(1), 5-26.
- Barnes, R. W., Grove, J. W., & Burns, N. H. (2003). Experimental assessment of factors affecting transfer length. *Structural Journal*, 100(6), 740-748.
- Banda, E. (2009). *Politics and Economic Consequences*. (1st Ed.). Washington D.C.: Center For Study of Responsive Law.
- Basheka, B. C., & Mugabira, M. I. (2008, August). *Measuring Professionalism variables and their implication to procurement outcomes in Uganda*. In The 3rd International Public Procurement Conference Proceedings, 28-30.
- Coggburn, J. D. (2017). Exploring differences in the American states' procurement practices. *Journal of Public Procurement*, 3(1), 3-28.
- Carr, A. S., & Smeltzer, L. R. (1997). An empirically based operational definition of strategic purchasing. *European Journal of Purchasing & Supply Management*, 3(4), 199-207.
- Camp, W. (2001). Formulating and evaluating theoretical frameworks for career and technical education research. *Journal of Vocational Education Research*, 26(1), 4-25.
- Chepkoech, R. E. (2013). Procurement Planning and Service Delivery in State Corporation in Kenya. *Journal of Business and Management*, 3(1), 78-94.
- Dagbanja, D. N. (2014). Promoting a Competitive Local Business Community in Ghana: The Role of the Legal Framework for Public Procurement. *Journal of African Law*, 58(2), 350-375.
- De, S. K., & Sana, S. S. (2016). An EOQ model with backlogging. *International Journal of Management Science and Engineering Management*, 11(3), 143-154.

- Demirtas, O. & Akdogan, A. A. (2015). The effect of ethical leadership behavior on ethical climate, turnover intention, and affective commitment. *Journal of Business Ethics*, 130(1), 59-67.
- Duffie, D., & Singleton, K. J. (2012). *Credit risk: pricing, measurement, and management*. New Jersey: Princeton University Press.
- Fradkov, M. (2004). State procurement to reach 40% of 2004 budget expenses. *The Russia Journal Daily*, 2??, 112-136.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2003). Case study research. *Educational research: An introduction*, 3, 123-163.
- Giunipero, L. C., & Sawchuk, C. (2000). E-purchasing plus: changing the way corporations buy. Influences and outcomes of outsourcing: insights from the telecommunications industry. *Journal of Purchasing and Supply Management*, 13(4), 245-260.
- Gillham, J. (2000). The science of optimism and hope: *Research essays in honor of Martin EP Seligman*, 3 (2), 36-73.
- Gul, H. (2010). *Modernising public procurement and creating an independent public procurement regulatory authority*. Law transition online.
- Herbling, D. (2015). *How UK sleuths unearthed Kenya 'Chickengate's scandal*. [online] Businessdailyafrica.com.
- Jelagat, M. R., & Bii, P. K. (2017). Effect of Supplier Appraisal Procedures And Capacity Assessment Appraisal On Organizational Performance. *European Journal of Research and Reflection in Management Sciences*, 5(4), 69-83.
- Juma, M. J. O. (2010). Public Procurement Reforms. *Kenya Procurement Journal*, 1(8), 112-124.
- Karlsson, C., Croom, S., Forza, C., Voss, C., Ahlstrom, P., & Coughlan, B. W. (2009). In *Researching Operations Management—Routledge 2009 book. POMS Conference 2009*.
- Kangogo, J., & Kiptoo, E. J. (2013). Factors affecting ethical standards in public procurement in Kenya. *International Journal of Management Science*, 1(3), 90-99.
- Kamau, D., & Ayuo, A. (2013). Financing Agriculture as a Poverty Eradication Strategy-The Case of UasinGishu County, Kenya. *Journal of Economics and Sustainable Development*, 1(3), 45-59.
- Kaufman, P. L., Levin, L. A., Adler, F. H., & Alm, A. (2011). *Adler's Physiology of the Eye*. Elsevier Health Sciences.
- Kairu, K. M. (2015). Role of strategic inventory management on performance of manufacturing firms in Kenya: A case of Diversey Eastern and Central Africa Limited. *International Academic Journal of Procurement and Supply Chain Management*, 1(4), 22-44.
- Kinuthia, V. K. (2011). *Managing stakeholder relations in protracted crisis situations: a discourse analysis of corruption through the Goldenberg and Anglo-Leasing cases of Kenya* (Doctoral dissertation, University of Leeds).
- Kiawa, S. M. (2012). *Effects of Free Primary Education on the Pupils' Academic Performance: A Case of Westlands District of Nairobi*. Unpublished masters project university of Nairobi.

- Kimaiyo, K. K., & Ochiri, G. (2014). Role of Inventory Management on Performance of Manufacturing Firms in Kenya—A case of new Kenya Cooperative Creameries. *European Journal of Business Management*, 2(1), 336-341.
- Kim, D., Cavusgil, S. T., & Calantone, R. J. (2006). Information system innovations and supply chain management: channel relationships and firm performance. *Journal of the Academy of Marketing Science*, 34(1), 40-54.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Delhi: New Age International.
- Khang, T. S., Arumugam, V., Chong, A. Y. L., & Chan, F. T. (2010). Relationship between supply chain management practices and organisation performance: a case study in the Malaysian service industry. *International Journal of Modelling in Operations Management*, 1(1), 84-106.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research*. NY: Pearson Custom.
- Lenny Koh, S. C., Demirbag, M., Bayraktar, E., Tatoglu, E., & Zaim, S. (2007). The impact of supply chain management practices on performance of SMEs. *Industrial Management & Data Systems*, 107(1), 103-124.
- Lin, C., Chow, W. S., Madu, C. N., Kuei, C. H., & Yu, P. P. (2005). A structural equation model of supply chain quality management and organizational performance. *International journal of production economics*, 96(3), 355-365.
- Leenders, M.R., Johnson, F.P., Flynn, A.E., & Fearson, H. (2008). *Purchasing and supply chain management*, (13th ed). New York: McGraw Hill.
- Makena, N., & Iravo, (2014). Impact of Supply Chain Management Practices on Organizational Performance: A Case Study of Haco Industries Limited (Kenya). *Journal of Business and Management*, 16(4), 24-36.
- Makori, N. M. (2011). *Effects of public procurement and disposal act on procurement in parastatals in Kenya*. Unpublished masters thesis Kenyatta University, Nairobi.
- Macchiavello, R., & Morjaria, A. (2015). The value of relationships: evidence from a supply shock to Kenyan rose exports. *American Economic Review*, 105(9), 2911-45.
- Marshall, D., Mclvor, R., & Lamming, R. (2007). Influences and outcomes of outsourcing: insights from the telecommunications industry. *Journal of Purchasing and Supply Management*, 13(4), 245-260.
- Mensah, S., & Ameyaw, C. (2012). Sustainable procurement: the challenges of practice in the Ghanaian construction industry. In *West Africa Built Environment Research (WABER) Conference 24-26 July 2012 Abuja, Nigeria*, 2, 871-876.
- Meredith, J. R., & Mantel, S. J. (2012). *Project Management*. NJ: Hoboken.
- Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2015). *Purchasing and supply chain management*. Cengage Learning.
- Mokogi, W. N., Mairura, C., & Ombui, K. (2015). Effects of Procurement Practices on the Performance of Commercial State-Owned Enterprises in Nairobi County. *International Journal of Scientific and Research Publications*, 5(6), 35-51.

- Muckstadt, J. A., & Sapra, A. (2010). EOQ Model. In *Principles of Inventory Management* (pp. 17-45). Springer New York.
- Mutua, J. M., Waiganjo, E., & Oteyo, I. N. (2014). The influence of contract management on performance of outsourced projects in medium manufacturing enterprises in Nairobi County, Kenya. *International Journal of Business and Social Science*, 5(9), 32-45.
- Murigi, P. M. (2014). Influence of Supplier Appraisal on Procurement Performance in the Real Estate Industry in Kenya: A case study of International House Ltd. *International Journal of Operations and Logistics Management*, 3 (3): 250-262.
- Munyao, R. M., Omulo, V. O., Mwithiga, M. W., & Chepkulei, B. (2015). Role of Inventory Management Practices on Performance of Production Department: A Case of Manufacturing Firms. *International Journal of Economics, Commerce and Management*, 3(5), 1625-1656.
- Mugenda, O. M., & Mugenda, G. A. (2003). *Research methods Quantitative and Qualitative Approaches*. Nairobi: ACTS.
- Mugenda, O. M & Mugenda, A.G (1999). *Research methods, Quantitative and Qualitative approach*. Nairobi: Nairobi press.
- Mwikali, R., & Kavale, S. (2012). Factors affecting the selection of optimal suppliers in procurement management. *International journal of Humanities and Social science*, 2(14), 189-193.
- Nachmias, M., Gunnar, M., Mangelsdorf, S., Parritz, R. H., & Buss, K. (1996). Behavioral inhibition and stress reactivity: The moderating role of attachment security. *Child development*, 67(2), 5 08-522.
- Nicol, W. (2003). Mainstreaming the Procurement Function into the Public Expenditure Policy and Effectiveness Dialogue. *World Bank Roundtable, Paris, France, January, 22-23*.
- Ngunyi, I. W. (2014). *Procurement practices and the performance of parastatals in Kenya*. Doctoral dissertation, university of Nairobi, Nairobi.
- Onyango, C. J. (2014). Effects of procurement planning on institutional performance: A case study of Mombasa Law Court. *International Journal of Science and Research (IJSR)*, 3(11), 446-455.
- Oyuke, O. H., & Shale, N. (2014). Role of Strategic Procurement Practices on Organizational Performance; A Case Study of Kenya National Audit Office County. *European Journal of Business Management*, 2(1), 336-341.
- Odhiambo, W., & Kamau, P. (2003). *Public Procurement*. Nairobi: Nairobi press.
- Pegnato, J. A. (2003). Assessing federal procurement reform: Has the procurement pendulum stopped swinging?. *Journal of public procurement*, 3(2), 145-175.
- Periasamy, P. (2009). *Financial Management* (2nd edition), New Delhi: Tata McGraw-Hill.
- Pfeffer, J. & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper and Row.
- Rahi, M. A., Bello, O. M. V., Peters, A., Ward, V. L., & Narayanamurthy, V. (2012). *U.S. Patent No. 8,306,842*. Washington, DC: U.S. Patent and Trademark Office.

- Rotich, K., Isaac, O., Achieng, B. C., & Opondo, F. (2014). The Effect of performance contract implementation on Service Delivery in Provincial Administration. *European Journal of Business and Management*, 6(15), 6-12.
- Saffu, K., & Mamman, A. (2000). Contradictions in international tertiary strategic alliances: the case from down under. *International Journal of Public Sector Management*, 13(6), 508-518.
- Shu Hui, W., Othman, R., Hj Omar, N., Abdul Rahman, R., & HusnaHaron, N. (2011). Procurement issues in Malaysia. *International journal of public sector Management*, 24(6), 567-593.
- Sloan Jr, E. D., & Koh, C. (2007). *Clathrate hydrates of natural gases*. NY: CRC press.
- Suvarna, Kim S., Christopher Layton, and John D. (2012). *Bancroft's Theory and Practice of Histological Techniques E-Book*. Elsevier Health Sciences.
- Slayton, T. (2009). Rice crisis forensics: How Asian governments carelessly set the world rice market on fire.
- Thai, K. V. (2004). *Introduction to public procurement*. NIGP.
- Thai, K. V., & Grimm, R. (2000). Government procurement: Past and current developments. *Journal of Public Budgeting, Accounting & Financial Management*, 12(2), 231-247.
- Tender, N., & Enterprises, D. (2016). *Institute Of Certified Public Accountants of Kenya Tender Document for The Provision Of Cleaning And Garbage Collection*. Nairobi.
- Turner, A. G. (2003). Sampling frames and master samples. *Designing of Household Sample Survey*. UNS.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of management review*, 11(4), 801-814.
- Watts, C.A., Kim, K.Y., Hahn, C.K., 1992. Linking purchasing to corporate competitive strategy. *International Journal of Purchasing and Materials Management* 23 (2), 2}8.
- Willy, K., & Njeru, A. (2014). Effects of procurement planning on procurement performance: a case study of agricultural development corporation, Nairobi. *International Journal of Business and Commerce*, 3(312), 58-68.
- Whittington, R. (2006). Completing the practice turn in strategy research. *Organization studies*, 27(5), 613-634.
- York, K. M., & Miree, C. E. (2004). Causation or covariation: an empirical re-examination of the link between TQM and financial performance. *Journal of Operations Management*, 22(3), 291-311.