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Factors Affecting the Performance of Procurement Practice in Higher Learning Institution in Kenya. (A Survey of Public Universities in Mombasa County)

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Abstract:
The topic of procurement performance measures has inspired a furry of research business-to-consumer value chain activities. However, the full understanding of the procurement performance was realized unless more research illustrated factors influencing procurement performance. The research examines the potential factors influencing procurement performance. The study was guided by the specific objectives: to ascertain the effect of procurement planning, supplier's relation, E- procurement and legal issues on procurement performance. The study was conducted through descriptive Survey design and empirical data was collected from procurement departments of the 20 respondents from the targeted populations of 200 targeted six (6) public Universities in Mombasa County. Stratified sampling was employed to obtain a suitable unit representative analysis. Data was collected by use of questionnaires and then later sorted out to check completeness and clarity. Data was analyzed by quantitative and qualitative whereby both correlation and multiple regressions was employed to determine relationship between and among the variables. Statistical Package for Social Science (SPSS) was use for data analysis.

Keywords: purchasing Strategy, Supplier Relation- procurement, Legal Issue and procurement performance.

1. Introduction

International agreements aimed at relating trade barriers and promoting free trade have provided opportunities for firms to expand their supply bases to participate in international purchasing, also referred to a global sourcing. Indeed, world merchandise trade and commercial services trade reached $ 11.762 trillion and $ 2.710 trillion, respectively, in 2006. That year, the U.S was the worlds largest importer for merchandise trace C & 1.920 trillion, and the worlds largest importer and exporter for commercial services (importers were $ 307 billions, exports were $ 307 billion). The world's top two exporters of merchandise trade were Germany ($ 1.112 trillion) and the U.S ($ 1.037 trillion), Wisner D. Tan and Leong, 2009). The primary reason for procuring globally is to obtain some form of competitive advantage as result of lower price and availability of foreign product not obtainable domestically, (Lysons and Farrington, 2006). While global sourcing provides opportunities to improve quality, cost, and delivery performance, it also poses unique challenges for purchasing personnel. Engaging in global sourcing requires additional skills and knowledge to deal with international suppliers, logistics, communication, political, and cultural, (Wisner *et al.*, 2009).

This study focus on public procurements. Public procurement or public purchasing refers to the management of the purchasing and supply management function of the government and non profit sector, such as education institutions, charitable organizations, and the federal, state, and local governments (Wister *et al.*, 2009). It is estimated that 15% of the works Gross Domestic Product (GDP) is spent through public procurement. It is further estimated that public procurement accounts for 90% - 13% of the GDP of the economies of developing countries. In Angola, public procurement accounts for 58%, it accounts for 40%, in Malawi while in Uganda, it accounts to 70% of public spending (Witting, 1999). But the area of public procurement is subjected to politically pressure and public scrutiny; the goals of the public procurement are basically similar to the private sectors. However, public procurement is subjected to special rules and regulations that are established by state (Wister *et al.*, 2009). For example in Kenya, all government purchases must comply with the public procurement and Disposal Act, 2005, the public procurement and Disposal regulation and the public procurement and Disposal (amendment) act 2013. The purpose of the Acts is to establish procedures and the disposal of unserviceable, obsolete and surplus stores and equipment by public entities to achieve: maximize economy and efficiency, promote competition and ensure that competitors are treated fairly, promote the integrity and fairness of those procedures, increase transparency and accountability. As a result of the procedures, increase public confidence and facilitate promotion of local industry and economy development (PPD, 2005).

Universities is any institution or Centre of learning by whatever name called or Education which intends to offer or is, in fact offering course of instruction leading to the grant of certificates, diplomas and degrees. It may be private or public, where private established with funds other than public funds, where else public University maintained or assisted out of public funds. To meet its objectives the Universities procures various materials and services through procurement function. The procurement unit is facing challenges in conducting public procurement imposed upon by a variety of environment factor, including market, legal environment, political environment, organizational environment and socio-economic and other environmental factors.

1.1. Objective of the Study
The objective of the study was to establish factors affecting the performance of procurement practices in higher learning institution in Kenya.

2. Literature Review

2.1. Conceptual Framework
A conceptual framework forms a simplified familiar structure, which is meant to help gain insight into phenomena that one needs to explain (Burns, 2008). Conceptual research is that related to some abstract ideas or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones, the conceptual literature concerning the concepts and theories and explain how the variables relate (Kothari, 2004).
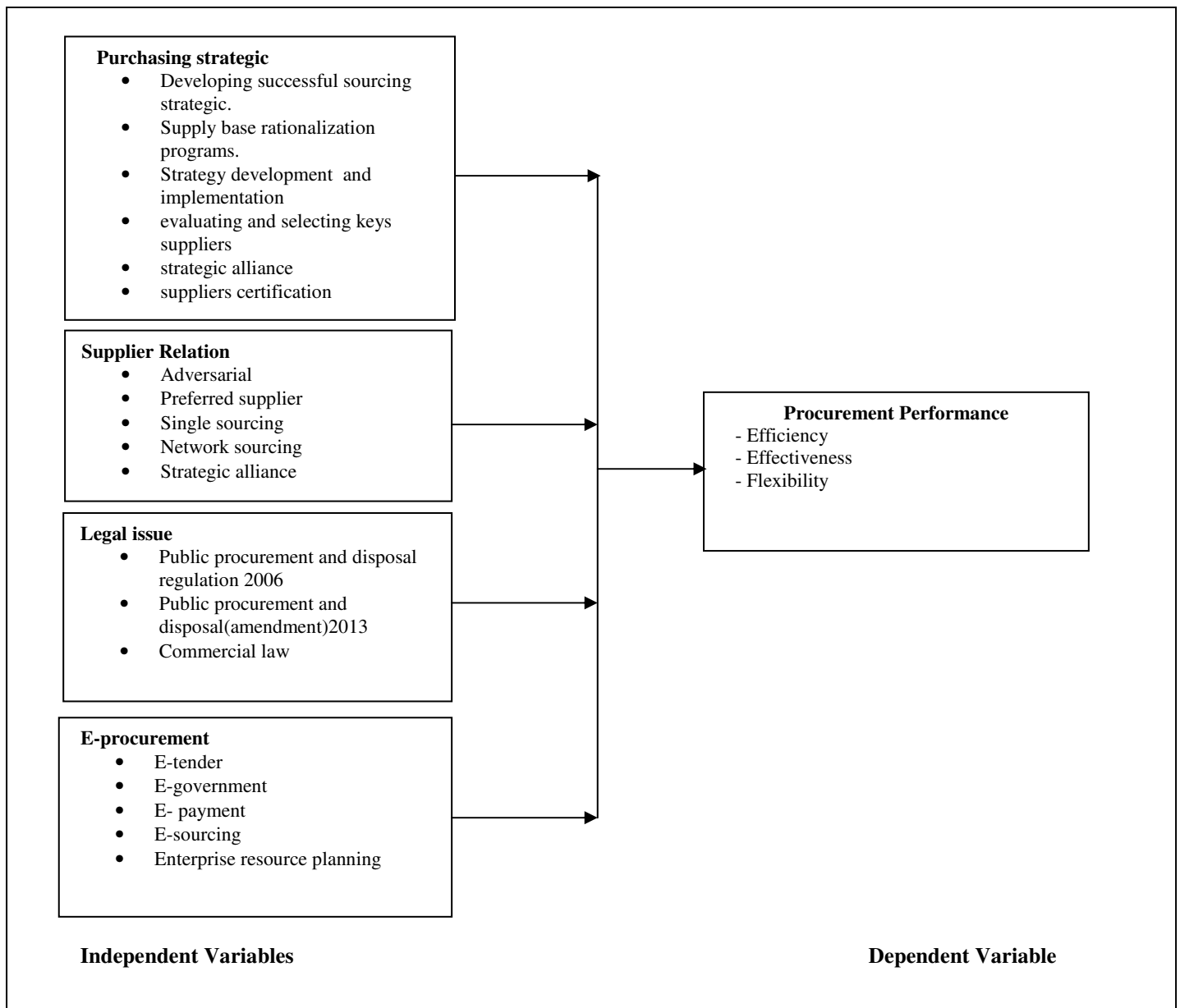

Figure 1: Conceptual framework

3. Research Methodology

3.1. Introduction
This chapter presents the methods the researcher wish to collect the data for the study. These include site of study, research design, population of study, sample size, sampling technique, data collection instrument, data collection procedure and data analysis techniques.

3.2. Research Design
This study was adopted the descriptive and analytical research design on factors affecting procurement performance which involve qualitative and quantitative research in form of a survey of public University in Mombasa County. The design allows for collection of extensive data to describe the characteristics of the variables of interest in a situation (Sekaran, 2006). This enable researcher to examine the findings to come up with conclusions by a correlation between factors affecting procurement as an independent variable and performance as a dependent variables.

3.3. Target Population
Population refers to the entire group of people, events or things of interest that the researcher wishes to investigate (Sekaran, 2006). The target population will be 200 procurement employees from six public Universities in Mombasa County.

3.4. Sample Size
A sample is a subset of the population; it comprises some members selected from it. In other words, some, but not all, elements of the population would form the sample (Sekaran, 2006). Representativeness of a samples size is one that is at least 10% - 20% of the population Mugenda, 2003). The researcher was use 10% of the target population to determine sample size as indicate in the following table.

Universities	Target Population	Sample Size
Technical university of Mombasa	40	4
Jomo Kenyatta University of Agriculture and Technology	10	1
Pwani University	30	3
Nairobi University	50	5
Kenyatta University	40	4
Moi University	30	3
TOTAL	**200**	**20**

Table 1: Sample Size

3.5. Sampling Techniques
The researcher was use the stratified methods to enable population to be equally represented (Saleem, 2010), argued that a stratified proportion sample increases a samples statistical efficiency and provides adequate data for analyzing the various populations.

3.6. Data Collection Instrument
The researcher was use interview method in a form of questionnaire which the employees are expected to give answers to the questions. The question was presented to the respondent was closed ended question.

3.7. Data Collection Procedure
The study was use primary data that was collected through structured questionnaire. The drop and pick self-administered questionnaire was distributed to procurement staffs in each selected Universities in Mombasa County. The questionnaire has section A for demographic data, section B to help answers relating to the first objectives of determination of the effect of purchasing strategy on procurement performance, while section C sought answers to address second objectives relating to suppliers relation on the procurements performance, while section D help to identify effect of E- Procurement on procurement performance ,also section E help to answers the fourth objective find a correlation between legal issue and procurement performance and finally section F help to identify procurement performance indicators.

3.8. Pilot Tests
The research instrument was pre-tested to increase the validity of the responses. Mugenda and Mugenda (2003) suggest that pre-testing allows errors to be discovered. Expert validity views and suggestions of the supervisors initially incorporated in the questionnaire and then pre-testing will be done on 20 respondents who are not including in the sample understudy. As a result of the pilot test, changes in words selections and instructions made to the questionnaires.

3.9. Data Analysis
Data analysis is the processing of data to make meaningful information (Sounders, Lewis & Thornbill,2009).Burns and Grove (2003) define data analysis as a mechanism for reducing and organizing data to produce finding that require interpretation by the researcher.

According to Hyndman (2008) data processing involves coding, editing, data entry, and monitoring the whole data processing procedures.

The data was analyzed by employing descriptive statistics and inferential analysis using statistical package for social science (spss). The descriptive technique was use to generate frequencies, mean and percentages while inferential statistics will generated the fitness of the model and regression of coefficient

$$Y = β0 + β1x_1 + β2x_2 + β3x_3 + β4x_4 + ε$$

In the Model, $β0$ = the constant term while the coefficient $β_1$-$β_4$ are the regression coefficient used to measure the sensitivity of the dependent variable (y) to unit change in the predictor variables captures the unexplained variations in the model.

4. Research Findings and Discussion

4.1. Introduction
This chapters presents the research findings on an investigation on factors affecting the performance of factors affecting the performance of procurement practice in higher learning institution in Kenya. The study was conducted on all public universities in Mombasa County. Specifically the study looked at purchasing strategy, supplier relation, E-procurement and legal issues. The results of the study are presented according to the objectives and research questions. The findings in this chapter were also arrived at by analyzing and interpreting the available data using SPSS software.

4.2. Response Rate
The sample size of this study was 20 respondents. These filled and returned questionnaires were 15 respondents and making a response rate of 75%.

This commendable response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for respondents to fill in, and picked the questionnaires once fully filled. The response rate demonstrates a willingness of the respondents to participate in the study.

4.3. Gender of the Respondents
The study sought to find out the gender of the respondents. According to the findings,   60% of the respondents indicated that they were mate while 40% of the respondents indicated that they were female.

4.4. Position of the Respondents
The study sought to establish the level or current position of the respondents as one of the respondents' characteristics so as to ascertain the respondents' experience in procurement operations. From the study, most of the respondents worked as clerks in various universities; 53.3%; 33.3% more. Assistant procurement manager and 13.3% were procurement managers.

4.5. Education Levels of the Respondents
The study sought to establish the education levels of the respondents. The level of education and training is key factor and ingredient in the determination of how successful procurements operation will be. The findings indicate that 26.7% has certificate while 73.3% of th respondent has degree.

4.6. Respondents' Length of Time in Procurement Process.
The research findings that majority or 46.7% of respondents have worked in procurement process between 2 to 10 years, 40% of respondents have worked in procurement process between 11 to 20 years, 6.7% of the respondents, have worked in procurement process for less than 2 years and 6.7% of the respondents have worked in procurement process for more than 20 years.

4.7. Purchasing Strategy
The study sought for establish the extent to which respondents agreed with the above statements relating to effects of purchasing strategy on the procurement performances. The study revealed that evaluation and selection of key supplies is the most purchasing st6rategfy tool in public universities. This is supported by a strong mean of 1.93 and allow standard deviation of 0.884 which indicates a small variation in opinion of the respondent. The respondents were also asked if the public universities developed successful strategic in its procurement operation when dealing with suppliers. The respondents agreed that their institution developed successful sourcing strategy with their suppliers. The mean was found to be 2.80 and a low standard deviation of 1.207. The researcher wanted to find out if the Public Universities practicing supply base rationalization program that reduce the number of supply dealing with.

The mean was found to be 3.00 and a low standard deviation out if there is strategy development and implementation in procurement operation. The mean forum to be 3.07 and standard deviation of 1.430. The researcher also wanted to establish, if the public universities were having strategic Alliance with suppliers. There mean of 3.33 and a low a standard deviation of 1.047 which further strengthened the statement.

4.8. Supplier Relation
The summary of the findings of the study are as in the table above. The researcher brought to liaison it the supplier relation lead to improved procurement performance. The mean of 4.00 and strong low standard deviation of 0.756 strongly support the statement and

the respondents agree to a very large extent that indeed the selection of suppliers through bidding leads to high overall procurement performance. With a mean of 3.80 and a standard deviation of 1.014, most of the respondents agreed to large extent that public universities select suppliers base on price by comparisons of difference suppliers.

The mean was found to be 1.47 and standard deviation of 1.125. The study sought to find if public universities single source. The mean of 2.80 and standard deviation of 1.207 supports the statement that public universities engage with suppliers based on trust. The researcher also wanted to know if public universities have developed voluntary arrangements with suppliers through involving exchange, clearing or co-development of products, technologies, or services which lead to the improvement in procurement performance. These mean of 2.20 and a low a standard deviation of 1.146 that support the statement.

4.9. Procurement
The study sought to find out whether from the findings, 1.33 mean and 1.047 indicate that public universities select suppliers online, 1.93 mean and standard deviation of 1.223 indicate that high learning institution raise requisition online, 2.07 mean and standard deviation of 1.033 indicate that public universities made payment to their suppliers online, also 3.07 mean and standard deviation of 1.163 indicate that procurement information shared online , 3.27 mean and standard deviation of 1.668 indicate that there is integrated procurement system in place in Public Universities and finally, 2.67 mean and standard deviation of 1.718 public universities register tendering opportunities and transaction in government portal. This clearly acknowledging the fact that e-procurement interference procurement performance.

4.10. Legal Issues
The study sought to find out whether legal issue affect procurement performance from the finding, 4.73 mean and a strong standard deviation of 0.594 indicated that purchasing requisition handed as per regulation and also 4.73 mean and a strong standard deviation of 0.594 indicate that PPDA procedures followed in public universities. The researcher also wanted to establish if PPDA procedure help in procurement performance. The mean of 4.07 and standard deviation of 1.335 which support the statement.

4.11. Regression Analysis
The researcher conducted a multiple regression analysis so as to determine performance of procurement practices in higher learning institution. Multiple regression is a statistical technique that allows the study to predict a score of one variable on the basis of their scores on several other variables. The main purpose of multiple regression is to learn more about the relationship between several independent or predictor variables and a depended or criterion variable.

From the ANOVA static the study established the regression mode is note statistically significant. The P-Value (0.293) from the ANOVA result indicate that $0.293 > 0.05$ which implies that the model is not significant. Therefore the model is poor predictor of the relationship between the Independent variables and the Dependent variable as the significance levels (P-Value) are not within the acceptable levels $P < 0.05$

The study conducted a multiple regression analysis to determine the relationship between independent variables and dependent variable. The regression equation was.

$Y = B_o + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + \varepsilon$ where Bo is the constant term B1 – B4 are the regression coefficients while y is the dependent variable (procurement performance) X1 is the purchasing strategy independent variable , X_2 is the supplier relation independent variable, X3 is E-procurement independent able and X_4 is legal issue.

From the regression equation established taking all the factor (purchasing strategy, supplier relation, e-procurement and legal issue) constant at zero, the procurement performance in higher learning institution would be 3.574. Further, it all the other variable, are kept constant, a unit increase in purchasing strategy will lead to a 0.236 increase in procurement performance at higher learning institution. A unit increase in supplier relation will lead to a 0.328 increase in procurement performance at the higher learning institution; a unit increase in e-procurement will lead to a 0.045 increase in procurement performance at the higher learning institution, while a unit increase in legal issue will lead to a 0.005 decrease in procurement performance at higher learning institution. The results implies that supplier relation contribute more to the procurement performance at the higher learning institution followed by purchasing strategy, while legal issue contributed the least to procurement performance at the higher learning institution.

Despite the low level of significance the regression model was presented as follows:

$$Y = 3.574 - 0.236x, + 0.328x^2 + 0.045X_3 - 0.005X_4$$

4.12. Coefficient of Determination
The coefficient of determination explain the extent to which changed in the dependent variable can be explained by the change in the independent variable or the percentage of the percentage of variation in the dependent percentage of variation the dependent variable (performance) that is explained by all the four independent variables (Purchasing strategy, supplier relation, E-procurement and legal issue).

Model summary				
Model	R		Adjusted R Square	Std. Error of the Estimate
1	.603[a]		.110	.48966

Table 2

The model's four independent variables (purchasing strategy, supplier relation, E-procurement and legal issue) that were studied explains only 36.4 % of the procurement performance at the higher learning institution

a) Represented by the R_2. This therefore means that the four independent variables only contribute about 36.4% to the procurement performance at the higher learning institution while other factors not studies in the research contribute 63.6% of the procurement performance at the higher learning institution. Therefore, further research should be conducted to investigate the other factors (63.6%) that affect performance.

5. Summary, Conclusion and Recommendation

5.1. Introduction
The main purpose of the study was to establish factors affecting the performance of the procurement practices in higher learning institution in Mombasa County. Specifically, the study was based on four procurement practices which included; purchasing strategy. Supplier relation, E-procurement and legal issue. The results indicates that higher learning institution undertake all the procurement practices as part of the procurement operation.

5.2. Summary of the findings
The study was conducted through description with a target population of 20 respondents at the higher learning institution in Mombasa County. The response rate was 75% which is view as sufficient to conduct the study. Data was collected using a structured questionnaire. The four independent variables only contribute about 34.4% at the higher learning institution in Mombasa County.

5.3. Purchasing strategy
The first objective was to establish the effect of the purchasing strategy on procurement performance. The study revealed that the strategy use by most public Universities affect procurement performance negatively as indicate in the regression model that a unit decrease in a purchasing strategy will lead to a – 0.236 decrease in procurement performance at the public Universities. This implies that selecting wrong purchasing strategy can lead to poor procurement performance. There are varies purchasing strategies applicable differently depend on the nature of the goods or services acquired by the Institution and also depend on the overall objectives of the Institution, therefore where is need clear evaluation of the Institution objectives which improve overall performance.

5.4. Supplier relation
From the finding supplier relation account for 32.8% of variation in procurement performance in public Universities. The results further revealed that supplier relation is the most factors affect procurement performance positively in the sense that it provides mutual benefit where supplier and buyer share resource for their benefit and improve focus to the end customer requirements. Also supplier relation improve innovation between the Institution and the suppliers by sharing know how that lead to long term relationship and as result improve procurement performance.

5.5. E-Procurement
From the findings, E- procurement is the second factors affecting procurement performance positive, it account for 4.5% of the variation in the public Universities.
From the regression models, unit increase in E- procurement will lead to a 0.045 increase in procurement performance. This as a result of visibility of procurement process from suppliers to the buyer due to the real time information that help in decision making, therefore application of E-procurement increase procurement performance positively.

5.6. Legal issues
Finally, the study found out that legal issue affect the procurement performance negatively. In the regression model, a unit increase of legal issue will lead to a – 0.005 decrease in procurement performance at the public Universities. This implies that current rules and regulations in the procurement practices affect the efficiency and effectiveness of the procurement performance. The procurement rules and regulation subjected the Institutions to use only one methodology when processing goods and services without consideration of the market dynamics and as a result affect the procurement performance negatively.

5.7. Conclusion
The study conclude that selecting wrong or lack of purchasing strategy can lead to poor procurement performance and also current legal requirement need to review in order to improve procurement performance at higher learning institution. The most importance factor was found to be suppliers relation followed by E- procurement as point out by most of the respondents. This was because good relation with suppliers results to effective and efficiency in meeting ultimate customer requirement through resource and information sharing.

5.8. Recommendation
1. Purchasing strategy should formulate base on market behavior and Institution resource capabilities.
2. Review of procurement laws and regulation in order to improve efficiency and effectiveness at higher learning Institution.
3. Adoption of E-procurement in procurement process.

4. Development of long term relationship between Institution and its suppliers.

6. Areas for Further Research

The study looked at four independent variables (purchasing strategy, supplier relation, E- Procurement and legal issue) which according the study contributes to only 36.4% of the variations in procurement performance at higher learning institution in Mombasa County. The researcher recommends further research to investigate the other factors that affect procurement performance.

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