



Chuka University

info@chuka.ac.ke | 020 231 0512 / 020 231 0518

INFLUENCE OF SPECIFICATION WRITING ON THE EFFECTIVENESS OF PROCUREMENT PROCESS AMONG PUBLIC UNIVERSITIES IN EASTERN KENYA

Oenga, N.O., Thogori, M. and Wabwire, J.M.

Department of Management Science, Chuka University, P. O. Box 109-60400, Chuka

Emails: noenga@chuka.ac.ke ; mthogori@chuka.ac.ke; jmasinde@chuka.ac.ke

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ABSTRACT

Procurement process plays a critical role in the success of any organization. Despite interventions to ensure a smooth procurement process, the problem of the lack of coordination between the user and procurement department has not been addressed. Therefore, this study sought to determine the influence of specification writing on the effectiveness of procurement process among Public Universities in Eastern Region of Kenya. The study employed a descriptive research design to a study population of 94 departmental heads of user departments in 5 Public Universities within Eastern Kenya. A census was conducted on all the 94 departmental heads under consideration and Primary data was obtained. Out of the 94 targeted the study managed to obtain only 91, giving a response rate of 97%. The results obtained imply that there was a significant association between supplier compliance to specification writing with p value $0.000 < 0.05$ and chi-square value of 38.536 and effectiveness of the procurement process of public universities in Eastern region at a 5% significance level. The study established statistically significant positive effect of specification writing effectiveness of the procurement process of public universities in Eastern region at a 5% significance level with coefficients of 0.417 and $p=0.000$. The study concluded that public universities should encourage user departments to actively participate in terms of specification writing since it impacted positively on the effectiveness of the procurement process. The study recommends that universities should leverage focus on proper user involvement in specification writing to enhance effectiveness of procurement process in Kenya. The findings provide a basis for further research, aid policy formulation and policy makers in streamlining public procurement practices in Kenya.

Keywords: Procurement process, Product specification, Policy compliance, Risk

INTRODUCTION

User department is a unit of a procuring entity that makes requisition for goods and services being procured by an organization (Lysons & Farrington, 2012). The user plays a key role in the procurement process starting from initiation of the need to purchase, preparation of specifications, involvement in opening of quotations, evaluation of bids, inspection and acceptance of goods, works or services (PPADA, 2015). The effectiveness of the procurement process heavily depends on active participation and coordination between the user and procurement department (Arjan & Van, 2010). The public procurement process may be viewed as proceeding through various stages of progression. Crocker et al. (2013) posit that specification writing is the act of formulating detailed description of goods, works or services to be acquired by an organization. Walker (2013) defines specification as a set of documented requirements to be satisfied by an item, design, product or service. According to Davis (2013) the accuracy, clarity and timeliness of specifications are becoming important. Value for money cannot be achieved without verifiable specifications since they form the basis for the prices quoted by contractors.

Accurate specifications enhance the procurement cycle; a poorly written or structured specification can be a major

reason why organizations fail to receive goods and services that ultimately meets the customer requirements (Davis, 2013). User departments play a major role in specification writing since they are the ultimate users of goods and services being procured. The contents of a specification vary according to whether the specification is written from the stand point of the user, designer, manufacturer or seller. The specification will vary according to the material or item concerned. For a simple item, the specification may be a brief description, while in the case of a complex assembly or construction works it will be a comprehensive document that requires multi-skilled experts (Tuner, 2009). Specification can either be good or poor based on the performance of the item being procured and its ability to meet requirements (Tuner, 2009). The user departments initiate the procurement of goods, works or services in an organization (PPADA, 2015). An efficient procurement process is viewed on the perspective of quality products and services, cost reduction, shortened lead times and customer satisfaction (Jorge, 2015).

University education in Kenya began in 1963 with just 571 students enrolled in Nairobi University College (Wiedman, 1995). Since then, the system has undergone some commendable expansion, and by 1998 there were a total of six public universities (CUE, 2014). Currently Universities in Kenya are established and chartered under the Universities Act No. 42 of 2012. The Commission for University Education (CUE) is the body that regulates the

operations of universities in Kenya. Every university in Kenya is established and chartered as stipulated by the Universities Act, 2012. In Kenya, education is seen as one of the pillars for attaining prosperity, eradicating poverty and achievement of vision 2030. Since Kenyan independence from the British rule in 1963, the system of university education in Kenya has undergone considerable changes and expansion (Njoroge *et al.*, 2019). In January, 2020 there were a total of 31 chartered public universities, 18 chartered private universities and 13 universities with Letters of Interim Authority-LIA (CUE, 2019).

In the global frontier, procurement is governed by the international procurement law as provided by the Rome convention of 2015. The model Law on International public procurement contains procedures and principles aimed at achieving value for money and avoiding abuses in the procurement process. The process is aimed at promoting objectivity, fairness, public participation, competition, transparency and integrity (UNCITRAL, 2011). According to Van Weele (2016) purchasing effectiveness is considered to be the result of user department involvement in the entire procurement process. User provides the basis for an organization to assess how well it is progressing towards its predetermined objectives, identifies the main areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements in the procurement process. This means user involvement is not an end in itself but a means to effective and efficient control and monitoring of the purchasing function (Weele, 2016). In Africa, the African Development Bank standard forms are used for goods sponsored by the Bank. In Rwanda the public procurement process is managed on real-time basis by Rwanda Public Procurement Authority (RPPA) which operates under the Ministry of Finance and Economic Planning.

Rwanda has a decentralized public procurement system whereby procuring entities have the power to conduct directly their public procurement process. The Public procurement system in Rwanda is governed by six fundamental principles namely: Transparency, Competition, Economy, Efficiency, Fairness and Accountability (RPPA, 2012). The law further stipulates that in every tender evaluation committee, there must be a representative of the user department to advise the committee on the specifications and supporting parameters to guide the committee in the tender evaluation. The Rwandese public procurement user guide (2015) states as follows: “The user unit plays the role of making the requisition for the required procurement, describing the nature of the requirements (quantity, specifications) and ensuring that the procured items meet the requirements of the user. To this effect, its role in defining technical specifications, participating in technical evaluation and inspecting the procured items before they are accepted is crucial”.

In Kenya, all the standard forms are used depending on the sponsor of the project, with the Public Procurement Oversight Authority (PPOA) standards being used mainly for public goods funded by the Kenya Government (PPOA, 2009). In Kenya, the public procurement is governed by the Public Procurement and Asset Disposal Act of 2015. The PPADA, 2015 abolished the tender committee and the procurement committee and gave power to the Accounting officers to award tenders on recommendation by the Head of Procurement Unit. The Act also among other issues introduced new procurement methods which were not envisaged in the previous Act of, 2005 and the regulations, 2006. The Public Procurement and Disposal General Manual (2012), provides that the user department shall be responsible for initiating procurement and disposal requirements and forwarding them to the procurement unit, participating in the evaluation of tenders, proposals and quotations, preparation of technical specification, undertaking conformity assessment of supplied goods, works and services with the specification of the contract documents and endorsing the issuance of goods, works and services received notes.

Statement of the Problem

In any public entity, the procurement process is initiated by user departments who play the role of specification writing, preparation of procurement plan, tender evaluation and reception of goods, works and services. According to Farrington (2016), modern procurement processes are prone to delays in delivery, variances in quality and quantity, long process cycle and changing customer requirements makes the procurement process to take long than expected. Enhanced team work among functional departments in an organization can facilitate information sharing which is a critical tool for effective and efficient management (Walker, 2011). This will ensure the procuring entity gets value for money and enhance competitive buying which is anchored on the (PPADA, 2015). According to Jorge (2015), the most common causes of inefficiency in public procurement process among public universities are: delays in preparation of technical specification, failure to start procurement process on time, delay in opening bids, delay in evaluation of bids and failure to award tenders on time. A number of interventions have been undertaken to address the inefficiencies in the procurement process, which include among others: capacity building of stakeholders, improved public-private partnerships, development of procurement policies, increased transparency, accountability

and fairness in the procurement process (Nyambariga, 2016). However, these interventions have not been able to address the problem of the lack of coordination between the user and procurement department on the enhancement of the procurement process among the Public Universities. The main challenge facing Public Universities in Kenya today is how to synchronize the operations of user department with those of procurement department to fast track the whole process right from need identification, evaluation of bids, selection of suppliers, award of tenders, contract management/expediting, inspection, receiving and payment of suppliers (Schapper, 2012). In the light of the above, this study sought to address the knowledge gap by investigating the influence of specification writing on the effectiveness of procurement process among Public Universities in Eastern region, Kenya.

The objective of the study was to assess the influence of specification writing on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya. The Research hypotheses was that specification writing has no statistically significant influence on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya

LITERATURE REVIEW

Effectiveness of Procurement Process

The effectiveness of the procurement process is measured in terms of quality of goods; works and services received, reduced cost, reduced lead time and enhanced customer satisfaction. Lysons and Farrington (2012) define quality as the totality of features and characteristics of products or services that bears the ability to satisfy stated or implied needs. An effective procurement process ensures purchase of high quality goods and services in an organization (Saunders, 2010). Cost refers to the amount spent in order to obtain goods and services. An effective procurement process seeks to minimize costs without compromising on product or service quality. This is done through eliminating unwarranted expenses (PPDGM, 2012). Saunders (2010) defines lead time as the time between placement of an order until the final delivery of goods and services is completed.

The major benefits of reducing lead times are reduced carrying costs and streamlined operations leading to effective procurement process (Momanyi, 2016). Customer satisfaction is a measure of how products and services supplied by an entity meet or surpass customer expectation (Lysons and Farrington 2012). Customer satisfaction is characterized by reduced customer complaints. Ability to meet or surpass customer expectation can be achieved through an effective procurement process. The processing and management of the complete procurement cycle require close coordination with the budget process, commitment control, finance and expenditure management, and audit. Accounting officers must ensure close coordination of procurement function and budget functions (PPDGM, 2012).

Empirical Review of Literature

Specification writing and procurement process

The paradigm shifts in modern business models where firms are focusing on strategic procurement; the accuracy, clarity and timeliness of specifications are becoming increasingly important. Value for money cannot be achieved without verifiable specifications since they form the basis for the prices quoted by contractors. This is because accurate specifications enhance the procurement cycle; a poorly written or structured specification can be a major reason why organizations fail to receive goods and services that ultimately meets the customer requirements. Goods and services provided by external firms are complex and these are key areas that require technical attention. Suppliers often use specifications and subsequent contract to make claims and variations (Davis, 2013).

Onchiri (2016) carried out a research on the Influence of end Users Involvement in Procurement Decision Making on Purchasing Performance in Kenya police college, Kiganjo. His variables of study were specification development, procurement planning and tender evaluation. This study was inspired by the fact that specifications form the basis of procurement process since they comprise the yardstick for evaluating suppliers and inspecting incoming goods. The study adopted descriptive research design with a sample size of 96 respondents. The study concluded that end user involvement in specification development has significant influence on performance of purchasing functions at Kenya Police College, Kiganjo. This study was however carried out with respect to influence of end user involvement in procurement decision making on purchasing performance which is different from influence of user department's role on procurement process that covers a wider scope.

Kiragu (2012) conducted a research on specification writing and procurement process among public entities in Kenya. The study adopted the following variables: Needs assessment, specification, pre-qualification of bids and evaluation of bids. The study was inspired by the need to have clear specification when procuring using technology

in order to enhance responsiveness of procurement process. The study adopted descriptive research design with a sample size of 62. The study concluded that specification writing has a statistically significant influence on procurement process. The scope of this study was too broad as it looked at all public entities in Kenya. Also, sample used for this study was too small hence limiting proper generalization of findings. Karani (2014) carried out a research on effects of procurement practices on effectiveness of procurement process among state corporations in the treasury. The variables of study were specification writing, tender evaluation, receiving and disposal of stores. The study was driven by the need to determine the procurement practices that significantly affect the effectiveness of procurement process. The study adopted descriptive research design with a sample size of 82 respondents. In view of the findings emanating from this study it was concluded that procurements practices affect procurement performance of state corporations in the national treasury of Kenya. This study however did not look at procurement planning as one of the variables in procurement practices. It also focused on national treasury whose operations are different from those of Public Universities.

Walter (2017) carried out a research on the effect of internal procurement process on organizational performance in Nairobi County. The variables of study were specification, budget, purchase request, quality management and payment processes. The study was inspired by the need to find out the impact of internal procurement process on organizational performance covering such aspects as payment processes, quality management and budgets. The study adopted descriptive research design with a sample size of 87. The study concluded that internal procurement process has significant effect on the organizational performance in Nairobi City County which is different from influence of user departments role on procurement process where the procurement process is affected by the user department. Musau (2015) carried out a research on the determinants of procurement process and its role on organization's effectiveness among security firms in Kenya. The variables of study were specification, receiving, evaluation and sourcing strategies. The study was driven by the need to determine the key aspects of procurement that influence organizational performance.

The study adopted descriptive research design with a sample size of 88 respondents. The study concluded that there exists a solid substantial significant positive correlation between procurement procedures and procurement performance of security providers. This study differs from the current study in the sense that it focused on security firms while the current study focuses on Public Universities. Leiyan (2016) conducted a research on procurement process and organizational performance among state corporations. The variables of study were procurement plan, evaluation, specification and receiving. The study was informed by the need to determine the relationship between procurement process and organizational performance. The study adopted descriptive research design and a sample size of 74 respondents. The study findings concluded that there is a significant relationship between procurement process and organizational performance among state corporations. The sample chosen was however too small as it could not provide a generalized conclusion to all corporations in Kenya state.

METHODOLOGY

Research Design

This study employed descriptive research design since the design describes the characteristics of variables as they are. The target population of this study was heads of procurement and user departments of the 5 Public Universities in Eastern region of Kenya who were 94 in number (Universities Manual, 2018). The 94 were departmental heads who were directly involved in the procurement process.

Sampling Procedure and Sample Size

The target population was departmental heads from all the functional departments of the 5 Public Universities in Eastern region which included: Faculties, Directors, Procurement, Finance, Human Resource, Estate, Security, Library, Farms, Accommodation, ICT and Transport. According to the Universities Manual (2018), the total number of departmental heads working in these departments was 94. The study employed census technique. Kothari (2008) describes census technique as a technique that involves selection of all units of the population under study. Census was employed because the researcher purposely targeted user departments in the 5 Public Universities in Eastern part of Kenya. The user departments were divided into 12 categories as indicated in the table below

Research Instrument

The study employed a structured questionnaire as the primary data collection instrument. The questionnaire contained closed ended questions.

Pilot Study

The instrument was pilot tested with 10 heads of departments at Dedan Kimathi University which is 10.94% of the target sample. Dedan Kimathi University was chosen because it is a Public University with similar characteristics as those universities considered in the current study. According to Mugenda and Mugenda (2003) a successful pilot study uses 1% to 10% of the actual sample size.

Table 1: Distribution of user departments

Department	Chuka University	Embu University	Seku University	Machakos University	Meru University	Total
Faculties	5	4	4	4	5	22
Directors	5	3	3	3	8	22
Finance	1	1	1	1	1	5
Procurement	1	1	1	1	1	5
Human Resource	1	1	1	1	1	5
Estate	1	1	1	1	1	5
Security	1	1	1	1	1	5
Library	1	1	1	1	1	5
Farms	1	1	1	1	1	5
Accommodation	1	1	1	1	1	5
Ict	1	1	1	1	1	5
Transport	1	1	1	1	1	5
Total	20	17	17	17	23	94

Source: Universities Manual (2018)

Data Analysis

Descriptive statistics were used to describe the characteristics of the respondents and variables with the aid of Statistical Package for Social Sciences version 28.0 since it was the latest version. Chi-square analysis at 5% level of significance was conducted to show the association between user department's role and the procurement process of Public Universities in Eastern region, Kenya. According to Kothari (2008). Further data was analyzed using ordinary least squares and multiple regression was done for the overall model. Data was presented in form of tables and charts and using t-test and F-test. Estimated linear regression models were adopted to examine the information where hypotheses were tested using t-test while the overall significance of the model was tested using F-test at 5% level of significance. A regression model for hypothesis H_{01} which stated that Specification writing has no statistically significant influence on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya took the form of: $Y_1 = a_0 + \beta_1 X_1 + e_1$

RESULTS AND DISCUSSION

Specification Writing and Effectiveness of Procurement Process

The study assessed influence of specification writing on the effectiveness of the procurement process among public universities in the eastern region, Kenya. Cross tabulations and Chi-square tests were done to establish association between the variables. Further correlation analysis was done to determine the relationship between specification writing and effectiveness of the procurement process and regression analysis was done to test the hypothesis.

Association of Specification Writing and Effectiveness of Procurement Process

Descriptive statistics of percentages and chi-square test were used to further analyze the data in order to establish the association of specification writing and effectiveness of procurement process (Tables 1 to 2). Results showed that 2.2% of the respondents were dissatisfied with the procurement process though fair while 5.5% of them were indifferent concerning procurement process though it was fair. Furthermore, results showed that 7.7% of the respondents were satisfied with the fair procurement process. It was also found out that 44% of the respondents were satisfied with the procurement process and so they rated it as good while 11% of them were indifferent though they rated the process as good.

It was also found out that 4.4% of the respondents were very satisfied with the procurement process and so they rated it as good. Results further showed that 13.2% of the respondents were satisfied with the procurement process and so they rated it as very good. Analysis also showed that 12.1% said that the procurement process was very good and they were very satisfied. Generally, the results indicated that 59.3% of the respondents indicated that the rate of

supplier compliance to specifications in your organization was good and that 64.8% of the respondents were satisfied with effectiveness of the procurement process in terms of cost reduction, quality of goods delivered, cost of goods purchased, receiving time, total lead time and overall response time.

The data was further analyzed using chi-square test at 5% significance level. The computed chi-square value 38.536 and p-value=0.00 implied that there was a significant association between supplier compliance to specifications and effectiveness of procurement process. These results support findings by Maranga (2020) who found that public organizations have formalized and clear requirements, controls and restraints hence suppliers comply with procurement specifications to the letter.

Table 1. Supplier compliance to specifications and effectiveness of procurement process

Rate of supplier compliance to specifications in your Organization	Procurement Process				Total
	Dissatisfied	Indifferent	Satisfied	Very Satisfied	
Fair	2.2%	5.5%	7.7%	0.0%	15.4%
Good	0.0%	11.0%	44.0%	4.4%	59.3%
Very Good	0.0%	0.0%	13.2%	12.1%	25.3%
Total	2.2%	16.5%	64.8%	16.5%	100.0%

Pearson Chi-square value=38.536^a, df 6, p-value (Asymptotic significance-2 sided =0.00

Table 2. Method of identification used and effectiveness of procurement process

Method of identification	Dissatisfied	Indifferent	Satisfied	Very Satisfied	Total
Sample	0.0%	0.0%	12.1%	7.7%	19.8%
Design/Drawings	0.0%	0.0%	2.2%	0.0%	2.2%
Brand/Trade Name	0.0%	0.0%	2.2%	7.7%	9.9%
Performance	2.2%	6.6%	31.9%	0.0%	40.7%
Industry Standards	0.0%	9.9%	16.5%	1.1%	27.5%
Total	2.2%	16.5%	64.8%	16.5%	100.0%

Pearson Chi-square value=52.342^a, df 12, p-value (Asymptotic significance-2 sided =0.00

Results showed that 12.1% of the respondents were satisfied with the sample method of identification used while only 7.7% of the respondents were very satisfied with the sampling method of identification. Results further showed that 2.2% of the respondents were satisfied with the design/drawings used in identification. It was also found out that 2.2% of the respondents were satisfied with the brand/trade name used in identification while 7.7% of the respondents were very satisfied with the brand name used in identification. Results further indicated that 31.9% of the respondents were satisfied with the performance method used in identification while 6.6% of the respondents were indifferent about the performance method of identification. It was also found out that 2.2% were dissatisfied by the performance method used in identification.

Results further indicated that 16.8% of the respondents were satisfied with the industrial standards used in identification while 9.9% of them were indifferent about industrial standards used in identification. The data was further analyzed using chi-square test at 5% significance level. The computed chi-square value 52.342 and p-value=0.00 implied that there was a significant association between method of identification used in your organization and effectiveness of procurement process. This implies that universities should carefully select the specification method used as respondents associated the effectiveness of the procurement process with the specification method used.

Correlation between Specification Writing and Effectiveness of the Procurement Process

To determine the degree or strength of the linear relationship among the variables, Pearson correlation was used. This was meant to identify the direction of the association between the indicators of these variables. Values of correlation coefficient range from -1 and +1. A correlation coefficient of +1 indicates that the two variables are perfectly and positively related in a linear sense, while -1 shows that the two variables are perfectly related but in a negative linear sense. Hair et al (2006) observe that correlation coefficient (r) ranging from 0.81 to 1.0 is very strong; from 0.61 to 0.80 is strong; from 0.41 to 0.60 is moderate; from 0.21 to 0.40 is weak; and from 0.00 to 0.20 indicates no relationship (Table 3).

Table 3: Correlation between specification writing and effectiveness of the procurement process

		Procurement Process	Specification
Pearson Correlation	Procurement Process	1.000	.384
	Specification Writing	.384	1.000
Sig. (1-tailed)	Procurement Process	.	.000
	Specification Writing	.000	.
N	Procurement Process	91	91
	Specification	91	91

The correlation results presented in Table 3 points out that the specification writing and effectiveness of the procurement process are positively and significantly correlated ($r = 0.384$, $p = 0.000 < 0.05$). This suggests that effectiveness of the procurement process is increased by frequent and effective use of specification writing in public universities in Eastern region Kenya. The results agree with (Koelsch, 2016) in his study on the effects of strategies adopted by companies to improve procurement performance, the study found out that procurement process is improved if proper specification writing is employed in an organization. His results suggested that organizations that had employed proper specification writing had better procurement performance as a result of the effectiveness of the procurement process in terms of quality goods and services, reduced costs and reduced lead-times.

Regression Analysis and Hypothesis One Testing

To test the Null Hypothesis H_{01} which stated that Specification writing has no statistically significant influence on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya, simple regression analysis was carried out. The results are presented in Table 4. The R-squared obtained = 0.148 at a probability value 0.000, which is less than significance value of 0.05. The R-squared of 0.148 implies that 14.8 % of the variations in effectiveness of the procurement process can be explained by the independent variable specification writing while 85.2% of variations in effectiveness of the procurement process are explained by random error or other factors. To further test for the influence of specification writing on the effectiveness of the procurement process, Analysis of Variance was carried out to ascertain the significance of the estimation model. Results presented in table 5.

Table 100: Regression analysis for objective one

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384 ^a	.148	.138	.602

Table 5: Overall significance of the model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.588	1	5.588	15.429	.000 ^b
	Residual	32.236	89	.362		
	Total	37.824	90			

As presented in Table 5 the study shows the analysis of variance of the regression analysis. F-value was found to be 15.429 and a p-value of 0.000. The p-value is less than the significance level ($0.000 < 0.05$) hence indicating that the overall model testing the influence of specification writing on the effectiveness of the procurement process was statistically significant. The findings of this study show that specification writing is a good predictor of the effectiveness of the procurement process.

Table 6: Individual significance of the model

Model		Unstandardized Coefficients		Standardized coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.246	.440		5.106	.000
	Specification	.417	.106	.384	3.928	.000

a. Predictors: (Constant), Specification Writing

b. Dependent Variable: Effectiveness of the procurement process

Regression Coefficients for the model on specification writing and effectiveness of the procurement process were presented in Table 6. Table 6 shows that constant of regression was 2.246. The slope of regression model obtained was 0.417. The t-statistic obtained for this model was 3.928 at a P-value of 0.000 which is less than the significance

value of 0.05. This implies that specification writing has a statistically significant influence on the effectiveness of the procurement process. This study therefore rejects the null hypothesis H_{01} : Specification writing has no statistically significant influence on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya. The P value obtained ($P < 0.05$) does not support the hypothesis that specification writing has no statistically significant influence on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya.

Therefore, the hypothesis was rejected implying that specification writing is a good predictor of the effectiveness of the procurement process. The findings of this study bring out the importance of specification writing on the effectiveness of the procurement process. From the theoretical literature, study used the postulates of the systems theory which was proposed by Ludwig (1940). The theory emphasizes on the significance of systems to the effectiveness of organizational processes. This has been proven by the results of this study which implies that having proper specification and compliance to this specification by suppliers in terms of samples, designs, brand names, performance and industry standards boosts the effectiveness of the procurement process in terms of enhanced quality goods and services, reduced lead times, cost reduction and enhanced customer satisfaction.

Further the findings of this study are consistent with study findings by Davis (2013) and Naylor (2012) who found that proper specification according to user requirements had a significant effect on effectiveness of the procurement process. This means that, proper specification will lead to effectiveness of the procurement process by creating an environment where user departments are satisfied due to reduced costs and receiving of quality goods, works and service within the specified timelines. The simple regression model for influence of specification writing on the effectiveness of the procurement process is presented by the equation below.

$$Y = 2.246 + 0.417X_1 + \epsilon$$

where; Y = Effectiveness of the Procurement Process ,

2.246 = constant, 0.417 = slope of regression model, X_1 = specification writing, ϵ = error term

CONCLUSIONS

Basing on the findings of the first specific objective, there is a statistically significant influence of specification writing on the effectiveness of procurement process among Public Universities in Eastern Region, Kenya. The conclusion of this study is that organizations should emphasize on effective use of a blend of specification methods such as performance, brand name, samples and designs or drawings to ensure effectiveness of the procurement process. Therefore, lack of proper item specification writing in organizations may lead to receiving of poor quality products and services, increased costs, extended lead-time and decreased customer satisfaction. The university should observe effective specification writing in terms of use of brand/trade name, performance, durability, serviceability and reliability to avoid flaws in the procurement process.

RECOMMENDATIONS

The study recommends that Universities should sustain and continually improve on their specification writing in order to boost effectiveness of the procurement process among Public Universities in Eastern Region, Kenya. This can be done by investing in proper research and involvement of user departments. Universities should be able to prepare their specifications based on the information generated from research and participation of user departments as this will increase customer satisfaction by providing quality goods, works and services at reduced costs.

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