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Original Research Article

Effect of Procurement Method on Procurement Performance in NG-CDF Funded Project in Kisii County, Kenya

Nyabwari David Matwa[1*]
[1]Associate Faculty in School of Business and Economics of Kisii University; P.O. Box 408 – 40200 Kisii, Keny

Abstract: Procurement method, a component of the procurement process, is an area that offers a potential of improvement, an improvement that can significantly add value to procurement performance and in turn project success. Procurement methods help optimizes all procurement performance parameters such as cost, time, and quality. The choice is usually complex, inconsistent and uncertain given the many participants and variable involved. NG-CDF projects however record an otherwise state of affairs with a sorry state of records across all the procurement methods. For this reason the study sought to establish the effect of procurement method on the performance of NG-CDF funded projects in Kisii County, Kenya. The study adopted a positivism research philosophy and a descriptive survey research with a target population of 2333 persons and ample size of 428 respondents determined by Yamane (1967) formula inclusive of 20% non-response rate. The study found out that procurement method accounts for 1.6% of procurement performance and an R = 0.341 implying a moderately and positively influence on procurement performance. PP = 2.281+ 0.373 (PM) regression model was realized. The study concluded that procurement method has a positively significant effect on procurement performance.

Keywords: Procurement method, procurement performance, procurement process, Procurement, NG-CDF.

INTRODUCTION

Unlike ordinary items which clients can directly acquire from the market, projects on construction are normally acquired via a sequential process called procurement method (Idoro, 2012). Ika, Diallo, and Thuillier, (2012) considers procurement method as procedures procuring entities employ to buy works, goods and services. Idoro and Iyagba (2008) added that a procurement method outlines the contractual obligations and/or responsibilities each contracting party should perform so as to deliver a project to the client. Procurement method is the determination of procurement participants and their duties during procurement execution. It establishes the level of involvement as well as relationships among clients, contractor and other participants in every level of procurement execution (Ali, Zakaria & Che-Ani, 2011). Each procurement system varies from another in terms of responsibility allocation, sequencing activities, process and procedures and the approach of an organization towards procurement performance (PMI, 2014). Procurement method of choice significantly impacts hugely on time performance of a construction project procurement since time of the project flow differs from one procurement method to another. As much, there is need to tailor procurement

procedures to best meet particular project procurement objectives, (Wardani *et al.*, 2006).

Statement of the Problem

Procurement method is the determination of procurement participants and their duties during procurement execution. It establishes the level of involvement as well as relationships among clients, contractor and other participants in every level of procurement execution (Githinji & Moronge (2018). The importance of a fit procurement method for a specified projects manifests in time, cost, and quality. A well-tailored procurement method brings out the best of a project (PMI, 2014). Eriksson and Westerberg (2012) however, laments that even with the choice of procurement methods projects are still stalling overrunning time and cost as well as questionable quality. In the local context, CDF Board (2015) notes, that many projects in schools had cost and time overruns and undesired outputs. Kirui, Chemutai and Rotich, (2015) avers that many of the CDF projects are stalled and failed. In the foregoing, the study sought to establish the effect of procurement method on procurement performance in NG-CDF funded project in Kisii county constituencies.

Objective of the Study

To determine effect of procurement method on procurement performance in NG-CDF funded project in Kisii county constituencies., Kenya.

Conceptual framework

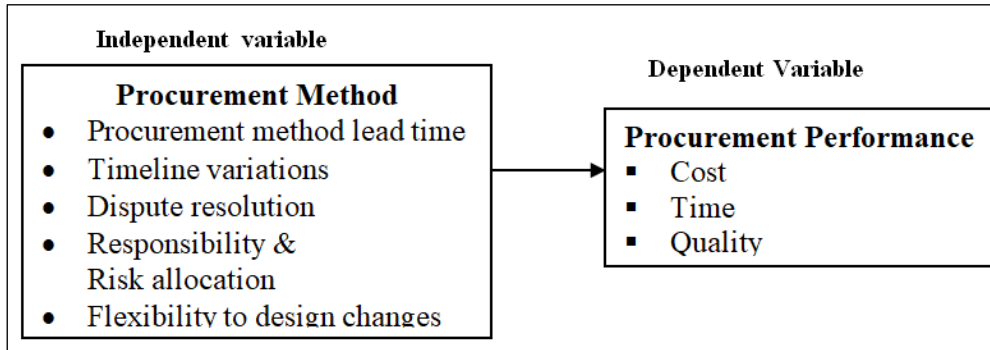## METHODOLOGY

The study employed a positivism research philosophy and a descriptive survey research design. The study was done in Kisii County with 2333 persons as its target population. The sample size of 418 respondents was generated via stratified and simple random sampling. Data collection involved use of questionnaires and analyzed both descriptively and inferentially.

RESULTS AND DISCUSSION

Response rate

Response	Frequency	Response Rate
Total questionnaire issued	428	100%
Returned questionnaires	371	86.68%
Complete questionnaires	355	82.84%
Not Returned	57	13.32%

According to Haslam and Prasad, (2019) assert that a 65% and above response rate is a more acceptable percentage. Based on the assertions of the scholars this response rate meets the best criteria response by scholars.

Descriptive Statistics for Procurement Method

Descriptive Statistics			
	N	Mean	Std. Deviation
The procurement method used was appropriate for the project	355	3.7718	.96334
Procurement method had an approved budget	355	3.7239	1.00134
Clients and contractors understood the procurement methods of choice for the project	355	3.7099	1.07766
Choice of a procurement method affected project performance	355	3.8169	1.00155
Procurement method of choice affected the duration of the projects	355	3.7775	1.00482
Procurement method of choice affected the cost of the total cost of procurement	355	3.6592	1.02201
Procurement method of choice affected the quality of the procurement and projects when complete	355	3.8056	.96490
An appropriate procurement method improved procurement performance	355	3.7493	.96065
Procurement method determines how the project procurement is managed	355	3.5042	1.02061
Valid N (listwise) **Overall mean**	355	3.724256	1.001876

The overall mean of 3.724, Indicates that the majority of the participants to a small extent agreed with most of the statements with a standard deviation of 1.0018 indicating very minimal divert responses. Thus, the procurement method used was appropriate for the project to enhance procurement performance of NG-CDF educational funded projects.

Inferential Statistics for Procurement Method

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.341a	.116	.114	.55689	.116	46.357	1	353	.000

a. **Predictors: (Constant), Procurement Method**

ANOVAa						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.377	1	14.377	46.357	.000b
	Residual	109.474	353	.310		
	Total	123.850	354			

a. Dependent Variable: Procurement Performance

b. Predictors: (Constant), Procurement Method

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.281	.206		11.073	.000
	Procurement Method	.373	.055	.341	6.809	.000

a. Dependent Variable: Procurement Performance

From the findings, the correlation coefficient between procurement method and procurement performance was R = 0.341. This implies that procurement method moderately and positively influenced procurement performance. The coefficient of determination $R^2 = 0.116$ implies that 11.6% of the total variation in procurement performance can be associated with the changes in with procurement method, leaving 88.4 percent unexplained. Analysis of variance (F = 46.357, P-value = 0.000<0.05) established that the model is overall significant. Further, the findings revealed that procurement method was statistically significant (β = 0.373, P-value = 0.000<0.05). Also, Analysis of variance shows that the calculated F-value = 46.357 at P-value = 0.000<0.05) while the critical value $F_{(1, 353)}$ =3.346. Since the calculated value F (46.357) is greater that the critical value (3.346), implies that, the hypothesis that

H02: Procurement method has no statistically significant influence procurement performance in NG-CDF funded projects in Kisii County, Kenya was rejected;

This indicates a moderate and significant relationship between procurement method and procurement performance. Moreover, the from the beta value coefficient, means that holding other factors constant, a unit change in procurement method improved procurement performance by 0.373. PP = 2.281+ 0.373 (PM) Where PP is procurement performance and PM is procurement Method.

CONCLUSION

From the beta value coefficient, the findings revealed that procurement method was statistically significant (β = 0.373, P-value = 0.000<0.05). This means that holding other factors constant, a unit change in procurement method improved procurement performance by 0.373. Furthermore, the predictors of procurement method which were; procurement method lead time, timeline variations, dispute resolution, responsibility and risk allocation, and flexibility to design changes all depicted varied relationship as well with the procurement performance. Thus, procurement method was found to be a significant predictor of procurement performance NG-CDF funded construction projects in education sector in Kisii County, Kenya.

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