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Abstract

The purpose of this study was to examine the project execution practices and their influence on the success of Constituency Development Fund (CDF) construction projects in Kenya. The study was pegged on Theory of Constraints. The target population were the project team implementing construction projects. The Counties were randomly selected from the regional boundaries and a minimum of three constituencies were randomly picked from each County. The unit of analysis under study were the completed and ongoing CDF construction projects and the unit of observation was the project team consisting of CDF staff and CDF committee members as well as project team members. Stratified random sampling was used to sample the CDF projects. Purposive sampling was used to obtain information from the experts. Data was collected using questionnaires. The coefficient of determination revealed that project execution practices explain 39.8% of success of CDF projects. The Beta coefficients results showed that a unit increase in project execution practices leads to an increase of 0.625 in success of CDF Construction Projects. This relationship is significant since p-value is 0.000 which is less than 0.05. Regression of coefficients results after moderation showed that project environment moderates the relationship between project execution practices and success of CDF construction projects in Kenya (p-value<0.05).

Keywords: *Project Execution Practices, CDF Construction Projects, Success of CDF Construction Projects*

1.0 Introduction

1.1 Background of the Study

According to Leach (2014), every project must pass through the following five phases of project management: identification and initiation phase, planning phase, implementation phase, monitoring and control phase and project closure phase. Project execution is the stage where all the planned activities are put into action, the project is produced and the performance capabilities are verified (Ramabodu & Verster, 2013). It is the stage where the project objectives are completed to the required quality standards by application of human resources, project funds, infrastructure, technology and all major stakeholders are kept informed of the project status and the forecasts for project schedule and budget (PMBOK).

The inputs for this process are project management plan, approved change requests while the outputs are the deliverable (product)-a unique verifiable product or service result deliverable (Winsock, 2007). Construction projects are a mix of very complex processes that seldom go according to the implementation plan. This phase involves implementing the plans created during the project planning phase. While each plan is being executed, a series of management processes are undertaken to monitor and control the deliverables being output by the project (Westland, 2006). Tasks completed during the execution phase include: develop team, assign resources execute project management plans, procurement management if needed, manages project execution, set up tracking systems, task assignments are executed, status meetings, update project schedule and modify project plans as needed.

The execution phase is typically the longest phase of the project in terms of duration. It is the phase within which the deliverables are physically constructed and presented to the customer for acceptance. To ensure that the customer's requirements are met, the project manager monitors and controls the activities, resources and expenditure required to build each deliverable (Winsock, 2007).

1.2 Statement of the Problem

Project failures are estimated to cost hundreds of billions of euros yearly (McManus & Wood-Harper, 2008) and are not limited to any specific region or industry. Research has shown that project methodologies provide more predictable project success than projects that do not use one, (Lehtonen & Martinsuo, 2006; Wells, 2012). Project life cycle practices is one such project methodology.

The construction industry is a major determinant of the economy of any country worldwide contributing to around 10% of the global GDP (Amoa-Abban & Allotey, 2014). The resources utilized in this industry add to 50% of the world resources. With such an impact on the world economy and resources, it is prudent that activities within this industry need be efficiently and effectively planned to ensure project success (Ramabodu & Verster, 2013).

Constituency Development Fund was introduced in Kenya in 2003 as one of the devolved funds. Every constituency received an annual amount for its development activities. Later on, the funds were increased depending on the population, size, poverty level and graphical size of each constituency (Ramabodu & Verster, 2013). Despite the above increment in the funds disbursed to various constituencies, most of the CDF funded projects were not completed successfully. Audit

reports by the Auditor General Office and civil society indicated that there was an increased case of stalled projects funded by constituency development committees across the country.

Despite the existence of the devolved funds, internal inefficiencies in their management have made them not to achieve the desired results. For instance, Wanjiru (2008) documents that poverty levels have increased from 56% in 2002 to 60% in 2008, public service delivery has failed, inequalities in resource distribution prevails and funds meant for community use have been looted by corrupt civil servants and politicians. Even though each constituency under the umbrella of constituency development fund committee (CDFC) is responsible for the management of CDF and is the vehicle of disbursing funds to the grass root level, the management faces varied drawbacks.

From the foregoing it is clear that limited research has been done on the project cycle practices that may influence the performance of CDF construction projects. This study seeks to establish the processes that need to be correctly managed to ensure success in undertaking CDF construction projects in Kenya.

1.3 Specific Objectives

- i. To assess the influence of project execution practices on the success of CDF construction projects in Kenya
- ii. To establish the moderating effect of project environment on the relationship between project execution practices and the success of CDF construction projects in Kenya

2.0 Literature Review

2.1 Theoretical Review

2.1.1 Theory of Constraints

Theory of constraints helps in identifying the most important bottleneck in the processes and systems for the purpose of improving performance. Theory of constraints is based on the fact that there is most often only one aspect of that system that is limiting its ability to achieve more of its goals. For any system to attain any significant improvement that constraint must be identified and the whole system must be managed with it in mind. This theory is based on five steps which include; identify the system constraints; decide how to exploit the system constraints; subordinate everything else to the above decision; elevate the system constraints; and if in the previous steps a constraint has been broken, go back to the first step, and do not allow inertia to cause a system's constraint (Rand, 2000).

To ensure project success, project managers need to be continually on the lookout for critical constraints and identify opportunities where constraints can be removed or mitigated. Project managers should therefore, identify and manage constraints in all phases of the project and aim to reduce the levels of complexity and uncertainty, in order to minimize the potential for delays, cost blowouts, scope creep and poor quality. The secret to success lies in managing these constraints and the system as it interacts with these constraints, to get the best out of the whole system (Tulasi & Rao, 2012).

Parker, Nixon and Harrington (2012) adds to this, suggesting that removal of the key constraints frees up substantial capacity and removes wasteful costs. The Theory of Constraints as a process of continual improvement encourages project managers to identify constraints at each stage of the project and implement measures to address these constraints (Parker, Nicholas & Isharyanto,

2015). Theory of Constraints supports project execution practices and their influence on the success of the CDF construction projects in Kenya.

2.2 Empirical Review

According to Desmond (2004), the execution stage involves the implementation of project activities. Thus, it is the process of leading and performing work as described in the management plan and effecting changes approved to realize the set objectives. This stage is characterized by continuous performance of project activities, change requests, monitoring and control, risk, quality, communication and stakeholder management. In a typical telecommunication environment, the execution involves signing of service contracts, down payment, holding internal and external kick off meetings, and initiating the procurement processes.

Study by Kerzner (2003) indicate that the project team directs the project activities and manages the various organizational and technical interfaces existing within the project. Successful project execution is an organizational priority. Various researchers have shown that several project success factors can impact a project at all phases. In the execution phase, project success is related to the project's timely completion, on budget and within agreed quality. However, the understanding of project success has been altered to include limitation to minimum changes in the scope of the activities, shift in the corporate culture and acceptance of project results by clients (Alexandrova, 2012).

2.3 Conceptual Framework

According to Kombo and Tromp (2009), a concept is an abstract or general idea inferred or derived from specific instances. The conceptual for the study established the relationship between project execution practices, managing project environment and project success

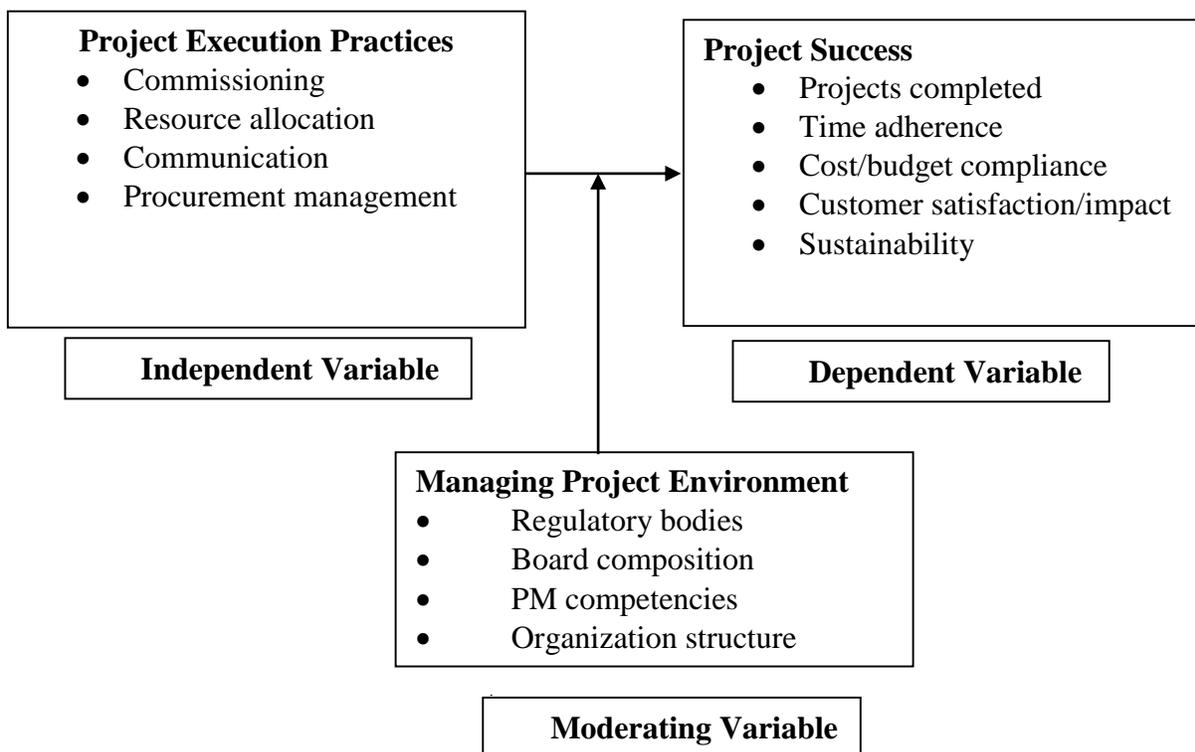


Figure 1: Conceptual Framework

3.0 Research Methodology

The target population were the project team implementing construction projects. The Counties were randomly selected from the regional boundaries and a minimum of three constituencies were randomly picked from each County. The unit of analysis was taken to be the completed and ongoing CDF construction projects and the unit of observation was the project team consisting of CDF staff and CDF committee members as well as project team members. Stratified random sampling was used to sample the CDF projects. Purposive sampling was used when getting information from the experts. Data was collected using questionnaires.

The simple linear regression that was used to link the dependent and the independent variable is as shown below.

$$Y = \alpha + \beta_1 x_1$$

Where;

Y=Success of CDF Construction Projects

x_1 = Project Execution Practices

α =Constant

β_1 =Coefficient of Project Execution Practices

4.0 Research Results and Discussion

4.1 Regression Analysis

4.1.1 Model Summary

The results in Table 1 present the fitness of model used in explaining the relationship between project execution practices and success of CDF projects. The coefficient of determination also known as the R-square of 0.398 which means that project execution practices explain 39.8% of the variation of success of CDF projects.

Table 1: Model Fitness for the Regression

Indicator	Coefficient
R	0.631
R Square	0.398
Adjusted R Square	0.396
Std. Error of the Estimate	0.44708

4.1.2 Analysis of Variance (ANOVA)

Table 2 provides the results on the analysis of the variance (ANOVA). The results indicate F calculated statistic of 200.940 which was greater than f critical (3.48) implying that the overall model was statistically significant and with goodness of fit of the model. This was also supported by the reported $p=0.000$ which was less than of 0.05 significance level.

Table 2: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	40.165	1	40.165	200.940	.000
Residual	60.765	304	.200		
Total	100.930	305			

4.1.3 Beta Coefficients

Regression of coefficients results in Table 3 indicates that with no project execution practices, success of CDF construction projects performs at 1.386 units. The table shows that a unit increase in project execution practices leads to an increase in Success of CDF Construction Projects by 0.625 units. This relationship is significant since p-value is 0.000 which is less than 0.05.

Table 3: Regression of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.386	.178		7.790	.000
Project Execution Practices	.625	.044	.631	14.175	.000

Dependent Variable: Success of CDF Construction Projects

The specific model is;

$$\text{Success of CDF Construction Projects} = 1.386 + 0.625x_1$$

Where; x_1 = Project Execution Practices

4.1.4 Moderation Effect of Project Environment

Regression of coefficients results in table 4 shows that the interaction between project execution practices and project environment significantly influenced the success of CDF construction projects (p-value=0.000), therefore project environment moderates the relationship between project execution practices and success of CDF construction projects in Kenya.

Table 4: Moderation Effect of Project Execution Practices

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.285	.125		18.224	.000
X_1X_2	.060	.013	.514	4.586	.000
Project Environment	.191	.079	.271	2.417	.016

Dependent Variable: Success of CDF Construction Projects

Where;

X_1 = Project Execution Practices

X_2 = Project Environment

5.0 Conclusion

From the findings, the study concluded that there was significant relationship between project execution practices and the success of CDF construction projects in Kenya and that project environment moderates the relationship between project execution practices and success of CDF construction projects in Kenya.

6.0 Recommendation

The study recommends that during commissioning an integrated project team be identified, briefed and released to start the project. The project be commissioned in presence of all team members and construction personnel be sourced in time of starting project. Emails should be considered as official communication channels with clear policy on reporting structure and status reviews be communicated to stakeholders. Project team members and project manager meetings be held frequently. The study recommends that materials for construction be availed just in time and the human resource manager to avail staff as required and on time. The funding be allocated and specific to the project reference be made to the budget estimates before any expenditures are approved while changes on the project plan should be done in a transparent manner. Changes of staff should be communicated officially and planned for.

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