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Project Execution Process and Performance of Technical Vocational Education and Training Institution's Construction in Kenya

Geoffrey Gichuru Mutulili.[*1], Dr. Jane W. Gathenya[*2], Dr. Muchelule Yusuf Wanjala[*3]

[1.]PhD student, Jomo Kenyatta University of Agriculture and Technology, Kenya Kenya

[2,3] Lecturers, Jomo Kenyatta University of Agriculture and Technology, Kenya

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Abstract: **This study aimed to investigate the influence of project execution process on the Performance of TVET Institution's Construction in Kenya. This study adopted descriptive design with a target population of of 146.Data collection instrument was questionnaire. The data was then analysed using SPSS version 26 and presented through tables using a linear regression model. From the findings, project execution process was found to be positively significant to performance of TVET Institution's construction, Kenya. The study recommends that,during project execution process, regulatory approval to be fast tracked, there should be efficient contract management, proper project funding and risk management.**

Keywords: **project execution process, TVET institutions, performance.**

1. INTRODUCTION

Project execution process consists of those processes performed to complete the work defined in the project management plan to satisfy the project requirements. Project execution process is the integration of the planned resources, activities and tools necessary to activate the plan to action, change management, risk management, issue management, procurement management and communication management are major activities at this stage. The primary objective of execution process is to construct deliverables as per the master project plan and consistently evaluate the processes and plans involved to deliver the output as per the agreed specifications (Mathenge, 2020). Key outputs are deliverables, change requests, updates to the project plan, quality reports, project team assignments, updates to the issue log.Several scholars, such as Ronoh,at el.,(2020)and Wambiya,at el.,(2021) has done a lot research on this area, and indicated that, there is significant and positive influence of project execution process on performance of construction projects.

In the concept of Project performance, different project managers use different techniques to measure performance. Some use project management software while others apply key performance indicators (KPIs) to determine if it is on track or not.Some of the common KPIs to measure project performance are project objectives, quality deliverables and Cost tracking and Project performance Mahmoud,at el.,(2020*)*.The outmost goal of project performance is achieved through attaining project's overall performance in terms of time, cost and quality; meeting project's multiple deliverables such as health and safety, risk management, claim management and absence of conflict and stakeholders' satisfaction related to project team, end-user, suppliers and meeting owner's requirements(Mbugua.,atel,2021).

Project performance ensures that enterprises maximize on profitability, minimize the consequences of risky and uncertain events in terms of achieving the project's objectives and seizes the chances of the risky events from arising (Unegbu, 2020).Pascal(2020) urged that, building projects are naturally complex due to the involvement of numerous parties fromthe project owner, professionals, consultants, contractors, stakeholders, suppliers and regulators. To ensure the project performance criteria is met, the project objectives, time, cost stakeholders' expectations and quality requirements should be clearly and explicitly stated in contract documents. In the context of this study, the criteria of project performance for the project will be cost, time, quality and acceptance of deliverables, which are basic elements of project performance Ingle&Mahesh (2020). Project performance measure for this study will be defined in terms of cost, time, quality, acceptance of the deliverables and meeting TVET construction projects stakeholders' expectations in Kenya.

The project performance is based on a set-criteria anchored on the standards or principles fromwhich stakeholders can judge the project's success(Ronoh,2020).Performance of construction is based onKey Performance Indicators (KPIs) for success such as environmental impact; schedule performance and adequate communication among all project participants. Ingle&Mahesh (2020).There is convergent withprevious studies on construction projects, however depending on the nature of projects, public or private projects, the performance criteria vary.However, based on reviewed literature both public and private sector stakeholder's performance of the project is considered as a source of concern, as a result of different stakeholders in the construction of projects with divergent views in terms of their objectives Ingle&Mahesh (2020), hencevarious stakeholders view project performance differently and a project that seem successful to the client may be unsuccessful venture for contractors or end users.

Statement of the Problem

The construction sector in Kenya, added 847 billion Kenyan shillings (KSh) to Kenya's Gross Domestic Product (GDP) in 2021.The annual value increased compared to 2020, keeping an upward trend since 2018, KNBS (2021).The performance of most projects in Kenya fails to meet the expected goal based on time and cost indicators.On average, 35-60% of projects initiated in Kenya face cost overruns while time overrun is most severe with 35-73% projects overrunning their schedule, with problematic issue of plurality of performance measurement regimes in the construction industry(Ong`ondo,at el,2019).Project failures results to slow economic growth loss of foreign aid/grants; tougher donor regulations; and lack of confidence in state from financial institutions (Eja&Ramegowda,2020) and loss of public funds and stakeholder's dissatisfaction in Kenya.

Challenges affecting the performances of TVET Institution's construction in Kenya are Inadequate Community Engagement and Acceptance in addressing concerns such as land disputes, environmental impacts, and cultural sensitivities,infrastructure such as roads, electricity, and water supply Limited financial resources, Fluctuating prices of construction materials, Land Acquisition:, Regulatory Compliance, A shortage of skilled construction workers

The performances of TVET Institution's construction in Kenya, just like other construction projects (Mongina&Moronge, 2021) have challengesdue to ineffectiveproject executing process. According toKNBS (2017) and Auditor General Reports (2017), and MOE (2021) report, indicated three out five (60%) TVET institution's construction in Kenyahad several challenges in their executing process.Hence,theperformance of performance of TVET Institution's construction has implications to the Kenya Vision 2030 as envisaged in the TVET sector to ensure equitableness and access to technical, vocational education and training, resulting to increased and sustained enrolment ratio of 20% by the year 2030.Mutwiri(2020) and Mongina&Moronge(2021), indicated that, project planing process influence the performance projects. However, these findings were based on water,roads and power projects, and outside the context and geographical areas of the current studywhich posits a research gaps.This study aims to fill the previous research gap by determining the influence of project executing process on performance of TVET institution's construction on performance of TVET Institution's construction in Kenya.

Research Objectives: To determine the influence of project execution process on performance of TVET Institution's construction in Kenya.

Research Hypothesis:$\mathbf{H_{02}}$: Influence of Project execution process on the performance of construction of TVET institutions in Kenya is not significant.

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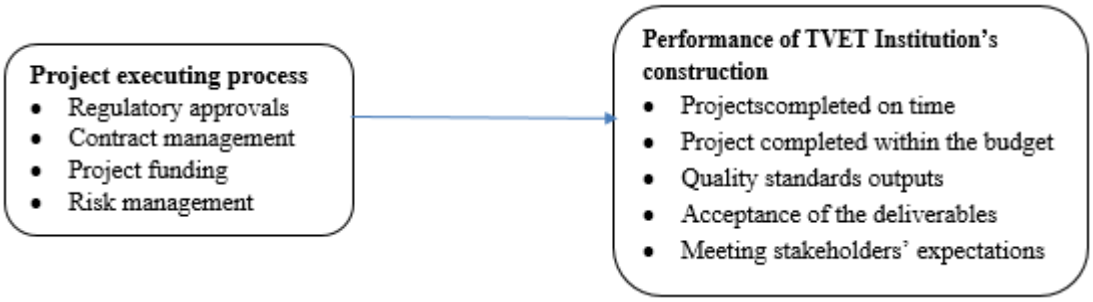

Fig: 1. Conceptual Framework

2. METHODOLOGY

Descriptive research design was used in the study to establish the influence project management process and performance of TVET institution's construction in Kenya. This study adopted descriptive design with a target population of of 146, sample size of 107 constructions TVET Institutions. The study collected primary data using questionnaires, and quantitative data was analysed using SPSS version 26. A linear regression model was utilized to show the relationship between the dependent and independent variables

3. RESULTS AND DISCUSSIONS

Table 1: Model summary

R	RSquare	Adjusted R Square	Std. Error of the Estimate
.461	.213	.209	5.599

a Predictors: (Constant), execution

Results as shown in Table 4.33, model indicates that model indicates that the coefficient of determination, $R^2$was 21.3 %, therefore,21.3% of the variance in Performance of construction of TVET institution's in Kenya was explained by execution process. The implication is that 78.7% of the change in Performance of TVET Institution's construction in Kenya can be attributed to others factors. The value of R-square was .213, while the value of Adjusted $R^2$was .209;a lower adjusted R-squared indicates that the additional input variables are not adding value to the model.

Table 2: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	1763.315	1	1763.315	56.232	.000
Residual	6522.381	208	31.358		
Total	8285.695	209			

The results in table 2, showed that, the model was statistically significant with a significant= 56.232, p<.005), implying that the model was statistically significant and with goodness of fit of the model.

Table 3: Beta Coefficients

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	Sig
	B	**Std. Error**	**Beta**		
(Constant)	17.174	1.585		10.832	.000
Execution	.437	.058	.461	7.499	.000

a Dependent Variable: Performance

The findings in Table 3 indicated that for model, the predictors of Performance of TVET Institution's construction in Kenya wereexecution process ($\beta = 17.174$, $p < 0.05$), was a significant predictor. Given the results of the regression model, the null hypothesis was rejected.Theinfluence of project execution process on the performance of TVET Institution's construction in Kenya was statistically significant. This results resonates withMutwiri(2020),Obalemo,(2021) and Ronoh(2020) findings.

Based on the above .the predictive model for Performance of TVET Institution's construction in Kenya becomes, Performance=17.174+.437executionprocess.

4. CONCLUSIONS AND RECOMMENDATIONS

From the findings, the study found that there is a positive and a significant relationship between project execution process and performance of TVET Institution's construction in Kenya. The study recommends that, during project execution process, regulatory approval to be fast tracked, there should be efficient and effective contract management, proper project funding and risk management.

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