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Influence of Monitoring and Evaluation Structure on the Performance of Projects at Kenya Ports Authority

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Abstract

The purpose of the study was to establish the influence of monitoring and evaluation structure on the performance of projects at Kenya Ports Authority (KPA). The study was anchored by the Stakeholder theory as proposed by Freeman (1884). Descriptive research design was used in the study with the target population consisting of 500 participants drawn from KPA infrastructure development division, key stakeholders and government agencies. Stratified random sampling technique was used to determine the sample size of 50 participants which was 10% of the targeted population. Questionnaires were used as the main data collection tool which was piloted to test validity and reliability. Quantitative analysis of data was conducted through the use of Statistical Package for Social Sciences (SPSS). Descriptive data was expressed through mean, percentage, frequency and standard deviations. The study was presented in figures and tables. Regression analysis was conducted to establish the relationship between the independent and dependent variables. The study applied regression analysis to test the hypothesis. Correlational test revealed presence of significant relationship between Monitoring and Evaluation structure and performance of projects. The findings of ANOVA showed that the model used to link Monitoring and Evaluation structure and performance of projects had a goodness of fit. The null hypothesis was rejected implying that Monitoring and Evaluation structure has a significant influence on performance of projects. The study concluded that project performance was influenced by monitoring and evaluation structure. The study recommended that organizational structure should be comprised of specialized Monitoring and Evaluation personnel who are mandated to oversee that projects are implemented as per the set requirements and standards.

Keywords: *Monitoring and Evaluation structure, project performance, Kenya Ports Authority*

1.1 Introduction

Monitoring and Evaluation (M&E) is an ongoing endeavor that enables project managers to progress on the performance of a project by influencing the project outcome (Project Management Book of Knowledge, 2017). The objective of M&E is to improve outputs, outcomes and impact (United Nations Development Programmed, 2012). According to (OECD, 2010), monitoring denotes the act of continuously using method to collection data on particular indicators so as to provide the management and multiple agencies involve in a project regarding the on-going endeavor, with signs of the level that has been attained or realization of an objectives while evaluation on the other hand involves regularly and objectively assessing the on-going or finished project, programmer or policy.

Baron and Armstrong (2013) added that M&E have a similarity regarding the significance or value of a policy or programmer and even for an activity. M&E structure is a critical activity that needs to be performed periodically to track progress of projects and check if it is conforming to design or it is meeting intended results. Like any other project whether capital intensive or not, M&E structure is a key activity to consider as it determines the performance of any undertaking. The performance of projects can be equated to the quality of the project that is greatly affected by the Time, Cost and Scope and is considered as a measure to project success (Ngatia, 2015).

In a national survey conducted by Pathfinder International (2016), they found out that most NGOs relied mostly on the founder members or the chief financier of projects for them to be successful after completion, their survival also depended most on individuals and not M&E systems and structures that were set in the institution level, thereby making them to performance poorly when rated. The study also found out that some institutions practiced nepotism not considering the minimum level of qualification requirements in certain positions in the organization thereby resulting to unethical professional practices in the management of NGOs, while other officers are engaged in an ethical acts like misuse of resources or funds assigned to activities that they oversee or individual gains at the expense of the beneficiaries.

Over a period, the port of Mombasa has experienced an inflow increase in cargo for transshipment, and both imports and exports (KNSB, 2019). As the port business expands, it is also vital to improve on the infrastructure, to keep the pace and maintain a competitive edge in the global market against its competitors. Globally ports act as the hub for sea trade and interconnect various regions helping in social transformation and improving their economy. Development of infrastructure projects for efficiency requires project teams that include organizations that have experts both internal and external to carry out the function of Monitoring and evaluation.

The Port of Mombasa has engaged various stakeholders both locally and internationally to execute projects that are in line with the Kenyan vision of 2030. Some of the projects include the construction of Terminal 2 (phase1 and 2) funded by JICA, LAPPSET project Lamu, Relocation of the oil terminal, Extension of Standard Gauge Railway (SGR) to the port, Adoption of port security surveillance (ISS), Conversion of Berth 12-14 to be container handling berths, Expansion of Inland Container Depot Nairobi (ICDN) and Construction of new ICD at Naivasha (KNSB, 2019). It is thus important to ascertain and validate the contribution of Monitoring and Evaluation structure for the performance of projects at Kenya

Ports Authority as one of the leading Kenyan government Parastatals, hence the need for the current study.

1.2 Statement of the Problem

KNSB (2019) data indicate that the contribution of infrastructure project to gross domestic product in Kenya have stagnated at about 4.8 to 5.4%. This emanates from inadequate investment on Monitoring and Evaluation structural empowerment by management of organizations (Kiruja, 2015; Hassan, 2015). Consequently, Monitoring and Evaluation structures of projects have minimal impacts and input to the overall success of the performance of projects. Indeed, various scholars such as Armstrong and Baron (2013) and Wanjiru and Kimutai (2013) contend that with proper Monitoring and Evaluation structures in projects, project teams can make a knowledgeable decision concerning an ongoing project which and in the process enhancing the project performance and reduce rate of stalled infrastructure projects in an organization.

Previous local studies on influence of Monitoring and Evaluation structure on performance of projects indicate minimal concentration on Kenya Ports Authority despite its importance contribution to the economy. For example, Sang and Mkutano (2018) studied on performance of Non-Governmental Organizations (NGOs) projects in Nairobi. In addition, Omunga and Gitau (2019) focused on influence of monitoring and evaluation on the performance of building and construction projects in Nairobi. Kiruja (2015) studied on the role of monitoring and evaluation on performance of Kenya Meat Commission. Hassan (2015) assessed the influence of structural capacity as a component of monitoring and evaluation of road construction projects in Kenya. On another study, Ngatia (2016) examined the effects of institutional factors on participatory of monitoring and evaluation systems of community-based projects in Kibera slum, Nairobi County. This being the situation, it was worthwhile to conduct this study to bridge the existing empirical gap.

1.3 Objectives of the study

The general objective of the study was to establish the influence of monitoring and evaluation structure on the performance of projects at Kenya Ports Authority.

1.4 Research Hypothesis

H_0: Monitoring and evaluation structure does not influence performance of projects at Kenya Ports Authority.

2.0. Literature Review

2.1. Theoretical Review

2.1.1. Stakeholder Theory

The proponent of Stakeholder's theory was Freeman (1884). The theory hypothesizes that an important aspect in carrying out project outcomes which are satisfactory are the inclusion of the entire structure of stakeholders in the process (Hill & Jones, 2012). The theory identifies the importance of understanding and incorporating the structure of the stakeholders in ensuring effectiveness and efficiency of the project outcomes. The theory is applicable in various areas such as corporate responsibility, business ethics and project management. The significance in

utility of the theory is outlines in a number of recent studies. For example, in a study by Kanda and Mugambi (2013) on the contributing factors to successful Monitoring and Evaluation of projects, it was noted that the outcome was the impact of the structure of stakeholders on the project, employing means-ends reasoning to deliver the projects.

Hill and Jones (2012) postulated that to gain community trust the stakeholder theory is one of importance in terms of its consideration. Mulei, Kidombo and Gakuu (2017) also embraced that this theory provides the ideologies which provides guidance to the community's interests as the structure of beneficiaries are identified, analyzed and can be fulfilled. Danny (2014) also posits that good decisions concerning the interests of the community can be made once they are recognized and analyzed through the application of the principles of stakeholders' theory. These choices might be to carry on by the game's rules, cling to legitimate agreements, or follow up on protests or weight applied as a powerful influence for the firm

Finally, a study that by Omunga and Gitau (2019) on the effects of monitoring and evaluation on the performance of building construction projects concluded that the participation of stakeholders in M&E positively and has weight on the performance of building projects. Therefore, for improved performance of building projects there is requisite for participation of the entire structure of stakeholders in the project. The stakeholder's theory is therefore pertinent in explaining and expressing the interaction between monitoring and evaluation structure and the performance of Kenya Ports Authority. This is due to the fact that recognition is made on the role of the interaction involving different stakeholders in enhancing project performance at Kenya Ports Authority.

2.2.Empirical Review

Kiruja (2015) studied on the role of monitoring and evaluation on performance of Kenya Meat Commission. The study employed descriptive survey design. Primary data was collected through questionnaires with published documents gathering secondary data. Analyzes of data was through descriptive and inferential statistical techniques. The findings established that monitoring and evaluation structure significantly and positively influenced performance of Kenya Meat Commission projects. The study recommended that Kenya Meat Commission should establish computerization of databases for storage of information as well as data collection tools as a platform for monitoring, evaluation and reporting of projects.

Hassan (2015) assessed the influence of structural capacity as a component of monitoring and evaluation of road construction projects in Kenya. Descriptive research design was used. The target population was road contractors involved in road construction projects in Nairobi city. Structured questionnaires were used for collection of primary data with secondary data collected through review of published documents. Data was analyzed through descriptive and inferential statistical techniques. The statistical package for Social Sciences (SPSS) and Microsoft excel were involved in the process of data analysis. The findings established that structural capacity of monitoring and evaluation positively and significantly influence performance of road construction projects in Nairobi city.

A study was conducted by Afroze and Khan (2017) on the relationship of internationally developed projects performance and effective communication practices and complexity of projects. The research design was a survey method. The findings revealed that the practices

have a direct impact on the structure of project performance. The findings also revealed that the complications that are encountered in projects had a minimal effect on the performance and communication relationship.

On another study, Ngatia (2016) examined the effects of institutional factors on participatory of monitoring and evaluation systems of community-based projects in Kibera slum, Nairobi County. The study revealed that the determinants which had effects on performance of monitoring and evaluation of government projects in Kenya had a lot of weaknesses, which if not redressed would seriously affect the success of the programs. The study also revealed that funds need to be available in order to facilitate effective operation of any M&E system though, the poor execution in payment of allowance to the M&E committees. The study recommended that for effectiveness and efficiency in performance, M&E should be an autonomous department funded separately from other departments.

Another study was undertaken by Leuzzi (2013) on the impact of task accomplishment with utilization of observing and assessment results in Italy. Exploratory research design was used with data collected through interview guides. The findings revealed that for effective venture accomplishment, there was requirement for conveyance ability using M&E venture results. The findings also demonstrated that for the executives to have success of task achievement, M&E results should be always examined. The findings finally revealed that, to ensure that all the stakeholders are able to read from the same page on their roles responsibilities and as well be aware of the current affairs hence keeping the project team on their toes on the project performance.

2.3.Conceptual Framework

The conceptual framework highlights the relationship between of monitoring and evaluation structure and the performance of projects at Kenya Ports Authority. The monitoring and evaluation structure is assessed through indicators such as departmental structure, M&E audit, M&E teams and M&E champions. Additionally, performance of projects is explained through indicators like relevant and usefulness of results, activities that are within schedule and access to information. Therefore, the relationship between monitoring and evaluation structure and the performance of projects at Kenya Ports Authority is outlined in Figure 1;

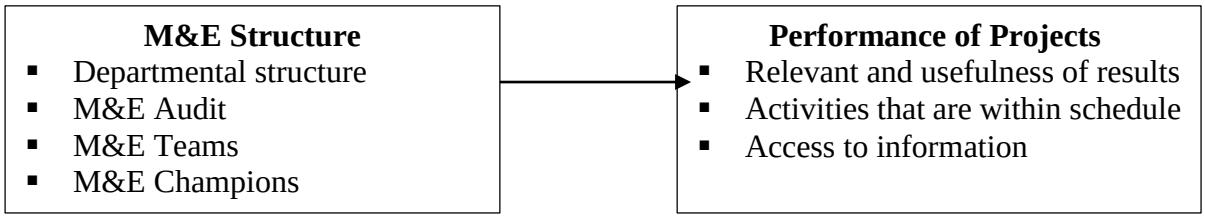

Figure 1: Conceptual Framework

3.0.Research Methodology

Descriptive research design was used in the study with the target population consisting of 500 participants drawn from KPA infrastructure development division, key stakeholders and government agencies. Stratified random sampling technique was used to determine the sample size of 50 participants which was 10% of the targeted population. Questionnaires were used as the main data collection tool which was piloted to test validity and reliability. Quantitative analysis of data was conducted through the use of Statistical Package for Social Sciences

(SPSS). Descriptive data was expressed through mean, percentage, frequency and standard deviations. The study was presented in figures and tables. Regression analysis was conducted to establish the relationship between the independent and dependent variables. . The study applied regression analysis to test the hypothesis with the following model:

$\mathbf{Y=\propto+\beta_1 X_1+\varepsilon_0}$

Y= Performance of projects

$\propto$=Constant

B_1 = regression coefficient

X_1= Monitoring and Evaluation structure

4.0. Results and Discussion

4.1.1. Correlation Analysis

Before running regression analysis, researcher tested correlational test to establish whether association existed between Monitoring and Evaluation structure and performance of projects as shown in Table 1. The study results revealed that there was significant relationship between Monitoring and Evaluation structure and performance of projects at (rho=0.578, p value <0.05). In summary, there is a strong correlation between monitoring and evaluation structure with a coefficient of 0.578. The results implied that, Monitoring an Evaluation structure positively influence the performance of projects as evident in by its strength of correlation.

Table 1: Linear relationships of variables

		M&E structure	**Project Performance**
M&E structure	Pearson Correlation	1	.578**
	Sig. (2-tailed)		.001
	N	31	31
Project Performance	Pearson Correlation	.578**	1
	Sig. (2-tailed)	.001	
	N	31	31

*. Correlation is significant at the 0.05 level (2-tailed).

4.1.2. Influence of M&E structure on performance of projects

This study conducted a baseline survey of the influence of M&E structure on the performance of projects. Table 2 shows the results. The results established that majority of respondents at 90.32% said M&E structure influence the performance of projects. The findings support Hassan (2015) assessment that structural capacity of monitoring and evaluation positively and significantly influence performance of projects.

Table 2: Usage of Baseline surveys on project

Response	**Frequency**	**Percentages**
Yes	28	90.3
No	3	9.7
Total	**31**	**100.0**

4.1.3. Descriptive statistics of influence of M&E structure on project performance

The study analyzed the descriptive statistics of influence of M&E on the of infrastructure projects performance. The results are shown in Table 3. The results show that 54.8% agree departmental structure on monitoring and evaluation influence performance of projects with a mean and standard deviation of 3.9677 and 1.01600 respectively. Further 64.5% agree M&E audits helps determine M&E structure weaknesses and strength hence resulting to improvement on performance of projects with a mean and standard deviation of 3.7419 and .96498 respectively, 61.3% of the respondents agree that monitoring and evaluation of teams is an effective tool which results to performance of projects with a mean and standard deviation of 3.8065 1.04624 and respectively, 35.5% of the respondents agree Monitoring champions helps in monitoring and evaluation structure and contribute towards performance of projects with a mean and standard deviation of 3.6129 and1.11587 respectively. The results agreed with Kiruja (2015) statement that monitoring and evaluation structure significantly and positively influenced performance of projects.

Table 3: Influence of M&E structure on project performance

Statements	SD	D	N	A	SA	Mean	SD
Departmental structure influence monitoring and evaluation in the performance of projects.	3.2	9.7	3.2	54.8	29	3.9677	1.01600
Monitoring and evaluation audits influence monitoring and evaluation in the performance of projects	6.5	3.2	12.9	64.5	12.9	3.7419	.96498
Monitoring and evaluation teams influence monitoring and evaluation in the performance of projects	6.5	6.5	6.5	61.3	19.4	3.8065	1.04624
Monitoring champions influence monitoring and evaluation in the performance of projects.	6.5	6.5	29.0	35.5	22.6	3.6129	1.11587

4.1.4. Regression analysis on the performance of projects

The study conducted simple regression analysis to test the relationship between monitoring and evaluation structure and performance of projects.

a) Model summary

The model summary results illustrate that R as 0.613 and R^2 of 0.376. The implication is that 37.6% of the variations in performance of projects can be accounted for by monitoring and evaluation structure. The remaining percentage can be accounted for by other factors.

Table 4: Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.613[a]	.376	.280	1.76157

a. Predictors: (Constant), Monitoring and Evaluation structure

b) Analysis of Variance (ANOVA)

Analysis of variance was conducted to establish the model linking monitoring and Evaluation structure and performance of projects. The results are indicated in Table 5. The findings of ANOVA showed that F-value=3.921 and p-value of 0.000<0.05 which indicated that the model used to link M&E structure and performance of projects had a goodness of fit. This implies that M&E structure significantly predicted performance of projects.

Table 5: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	48.674	4	12.168	3.921	.013[b]
	Residual	80.681	26	3.103		
	Total	129.355	30			

a. Dependent Variable: Performance of projects

b. Predictors: (Constant), Monitoring and Evaluation structure

c) Regression Coefficients of Cost of Monitoring and Evaluation structure

The findings show the regression coefficient weight for Monitoring and Evaluation structure was positive and significant (β= 0.137, t= 0.628, p<.05). Therefore, the null hypothesis was rejected at p<0.05 level of significance implying that Monitoring and Evaluation structure has a significant influence on performance of projects. The regression estimate for Monitoring and Evaluation structure was 0.137; this indicates that a unit increase in Monitoring and Evaluation structure would result in 13.7% increase in performance of projects. The results agreed with Leuzzi (2013) in a study that outlined that usage of M&E outcome helps to improves on project delivery skills thus growing the success rate of a project. The study also recognized that by using M&E project results it helps in keeping stakeholder informed of performance of projects. These results are shown in Table 6.

Table 6: Regression Coefficients on the performance of projects

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.035	1.642		3.676	.001
	M&E Structure	.137	.218	.210	.628	.535

a. Dependent Variable: Project Performance

5.0 Conclusions

The study has established that Monitoring and Evaluation structure significantly and positively influence performance of projects.

6.0 Recommendations

The study recommended that organizational structure should be comprised of specialized Monitoring and Evaluation personnel who are mandated to oversee that projects are as per the set requirements and standards.

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