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Omunga, L., & Gitau, R.

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INFLUENCE OF MONITORING AND EVALUATION ON PERFORMANCE OF BUILDING CONSTRUCTION PROJECTS IN NAIROBI CITY COUNTY, KENYA

Omunga, L.,[1*] & Gitau, R.[2]

[1*]Msc. Candidate (Project Management), Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya
[2]Ph.D, Lecturer, Jomo Kenyatta University of Agriculture & Technology [JKUAT], Kenya

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ABSTRACT

The current research sought to determine the influence of monitoring and evaluation on performance of building construction projects by construction firms in Nairobi City County, Kenya. The study specifically sought to establish the influence of the human resource capacity of the M&E team, Monitoring and Evaluation Planning, Stakeholder Participation and the application of the M&E results on performance of building construction projects by construction firms in Nairobi City County, Kenya. Descriptive survey design was used and based on a survey of the construction building projects in Nairobi County. The study focused on the projects being conducted by the 5,948 companies registered in the NCA building works category in Nairobi County. Krejcie and Morgan's method was used to determine the sample size from the target population of 5948 building construction firms under study. A sample of 361 firms was established. The unit of observation was the lead project managers of the building and Construction Firms registered by NCA in Nairobi County. Structured questionnaires were used in data collection. Significance of the independent and dependent variable was tested through multiple linear regression model. Data analysis was through SPSS v.24 and the findings were presented in form of tables. From the analysis, M&E positively and significantly affects project performance. The study recommended construction firms to use project teams with high experience, competence and required skills. Construction firms should consider M & E Budgetary considerations, baseline surveys, determine the M&E systems and frequency. The study recommended stakeholder involvement of employees, community members, government and project beneficiaries in the planning of the M & E systems for improved project performance. Use of the M & E results enables the management to identify the variation of the projects from the project management plan and facilitates the management in making strategic decisions regarding corrective actions.

Key Words: Human Resource Capacity, Planning, Stakeholder Participation, Monitoring And Evaluation Application

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INTRODUCTION

Monitoring and Evaluation (M & E) is a process that enables project managers to improve performance of a project by influencing the project outcome. The objective of M&E is to improve outputs, outcomes and impact (United Nations Development Programme, 2012). According to the Organisation for Economic Cooperation and Development (OECD), monitoring refers to a constant task that employs methodical collection of data on particular indicators to provide management and main stakeholders of an on-going project with indications of the degree of development and realization of objectives (OECD, 2010). Evaluation alternatively refers to a systematic and objective assessment of an on-going or finished project, programme or policy (OECD, 2010). Armstrong and Baron (2013) posit that M&E relates to the value or significance of an activity, policy or programme.

In Kenya, M&E gained traction due to the adoption of performance contracting in order to realize better performance through focus on the customer and expected results, and adopting a positive attitude work ethics in delivering services to the public, (Kobia & Mohammed, 2006). This was meant to restore confidence in citizens with regard to government services (Muthaura 2014).

Basing on the five urban service projects implemented by the World Bank in Nairobi, Kenya has had many positive impacts on water, housing, sanitation, social services, and environmental conditions but there are sundry other critical lessons gained from the experience. The evaluation reveals the import of interspersing technical assistance projects between investment interventions to ensure that project activities are continually improved based on experience (Ebrahim, 2010). A lack of technical assistance hindered the success of the housing program. On a more positive note, however, proper sequencing was important to the success of the water supply projects.

Nairobi and its environs has witnessed boom in construction projects in the last decade. However, a significant proportion of the projects are not completed on time resulting in cost overruns and sometimes complete stalling (Munyoki, 2014). This is evidenced by the large numbers of building construction projects that are currently unfinished. Further to this, there are those projects that are finished at inflated costs, and delivered at dates later than what was agreed in the project schedule. Nairobi's building and construction developments suffered a 22 per cent drop in 2017 with projects worth Ksh 240.7 billion approved. This was down from the Sh308.4 billion projects approved by Nairobi County government in 2016 (Economic Survey 2018).

In the building construction housing sector, easing of mortgage terms especially among low-income earners as the government targets to put up 500,000 housing units development in the next five years is expected to spur growth. According to the survey (Economic Survey 2018), the cost of building materials rose by three per cent compared to 1.8 per cent in 2016 while that of labour went up by 10 per cent. The government has been fronting adoption of cheaper but quality building technologies that ensure faster delivery of projects (Munyoki, 2014). According to the Kenya National Construction Authority 2018 annual report, it had approved 2, 522 building projects in that year.

Statement of the Problem

Tax payers and donors have contributed greatly to the building construction projects that have been in existence for the last three decades in Kenya but the completion rate of the projects and performance have been termed unsatisfactory (Ngure 2013). The construction industry is multifaceted and highly capital intensive. It was found that most construction projects globally face challenges that include delays, cost over runs and poor quality as per a survey done by Miller and Lessard (2001). In 2017 only about 30% of the construction projects that had been approved

performed well in Saudi Arabia (Assaf and Al-Hejji, 2009). In Nigeria, the construction projects were rated poorly as those in India suffered delays and run out costs (Odeyinka & Yusif, 2010). This reveals challenges in performance of building construction projects globally.

The Concept of systematic Monitoring and Evaluation in the construction industry is often sidelined and focus is instead given to other areas of project management: initiation, planning, implementation and close out (Aigbavboa, 2018). M & E is the only project activity that transcends throughout all the phases of the project management cycle, and helps to ensure the projects progress is on track. Building construction firms are often at the fore-front of setting standards that can be adopted throughout a nation's global industry. This is because they are motivated by cutting costs, delivering projects on time and still be profitable.

The contribution of building construction projects to the GDP has stagnated at about 4.8%, its contribution to economic growth due to low completion of the established projects (RoK, 2015). On the other hand, scholars such as Alcock, 2009; Armstrong & Baron, 2013; Naidoo (2011) argue that with proper project monitoring and evaluation, the project committee can make an informed decision regarding an ongoing project which can help enhance the project success. The high failure rate among these reviewed building construction projects therefore motivates this study to focus on establishing whether there is effective monitoring and evaluation and if it is there, how it influences its performance.

General Objective

The overall objective of the study was to determine the influence of monitoring and evaluation on performance of building construction projects by construction firms in Nairobi County, Kenya. The study was guided by the following specific objectives;

- To establish the influence of Human Resource Capacity of the Monitoring and Evaluation team on performance of building construction projects in Nairobi County, Kenya
- To determine the influence of Monitoring and Evaluation Planning on performance of building construction projects in Nairobi County, Kenya
- To examine the influence of Stakeholder Participation in Monitoring and Evaluation on performance of building construction projects in Nairobi County, Kenya
- To analyze the influence of the Application of Monitoring and Evaluation results on performance of building construction projects in Nairobi County, Kenya

LITERATURE REVIEW

Stakeholder Theory

The stakeholder theory was first put forward by Freeman (1984) and has been used in various areas such as corporate responsibility, business ethics and project management (Wang & Huang, 2006). The theory postulates that the inclusion of stakeholders in project processes is increasingly recognized as an important factor in delivering satisfactory project outcomes. This stream has generally focused on the way in which relationships with stakeholder groups are managed, and on the impact of stakeholders on the project, employing means-ends reasoning (Laplume, Sonpar & Litz, 2008).

Human Capital Theory

Human Capital Theory was advanced by Becker (1964). Human capital theory distinguishes between human capital development in general-usage and firm-specific skills. In his seminal work, Becker (1964) argues that employers will not be willing to invest in general training when labor markets are competitive. However, they are willing to invest in specific training because it cannot be transferred to outside firms. This is drawn from the assertion that while the returns to specific training can be realized only in an

ongoing relationship with the training firm, general training increases the productivity of a worker in many firms besides those providing it. Becker's theory separately addresses these phenomena and draws two main conclusions (Adam, & Urquhart, 2009). First, employers will share the returns and the cost of investments in firm-specific skills with their employees. Second, in a competitive labor market firms will not invest into general skills of their employees due to their inability to collect the returns from such investments.

Theory of Project Management

The theory of project is provided by the transformation view in operation. In the transformation view, a project is conceptualized as a transformation of inputs to outputs. To understand management is based on three theories: management-as-planning, the dispatching model and the thermostat model. The idea behind management-as-planning is that management at the operation level is seen to consist of the creation, revision and the implementation of plans. This approach to management views strong causal connections between the actions of management and the outcomes of the organization. The dispatching model assumes that the planned tasks can be executed by a notification of the start of the task to the executor. That is you issue an order down the chain of command that someone has to start on a task, and that will be it; the worker will automatically without any hesitation or problem start working on it.

Program Theory

The proponent of this theory was Suchman in 1960s. This theory is often developed during the planning stage of a new intervention. It can also be developed during implementation and even after a programme has finished. When an evaluation is being planned, it is useful to review the programme theory and revise or elaborate it if necessary by asking questions in order to examine the cause-and-effect relationships that create underlying problems. The program theory has been used to guide evaluation for many years; it shows the capability of the program to fix a problem by addressing the needs in the assessment. It also gives tools to determine areas of impact in evaluation (Sethi & Philippines, 2012).

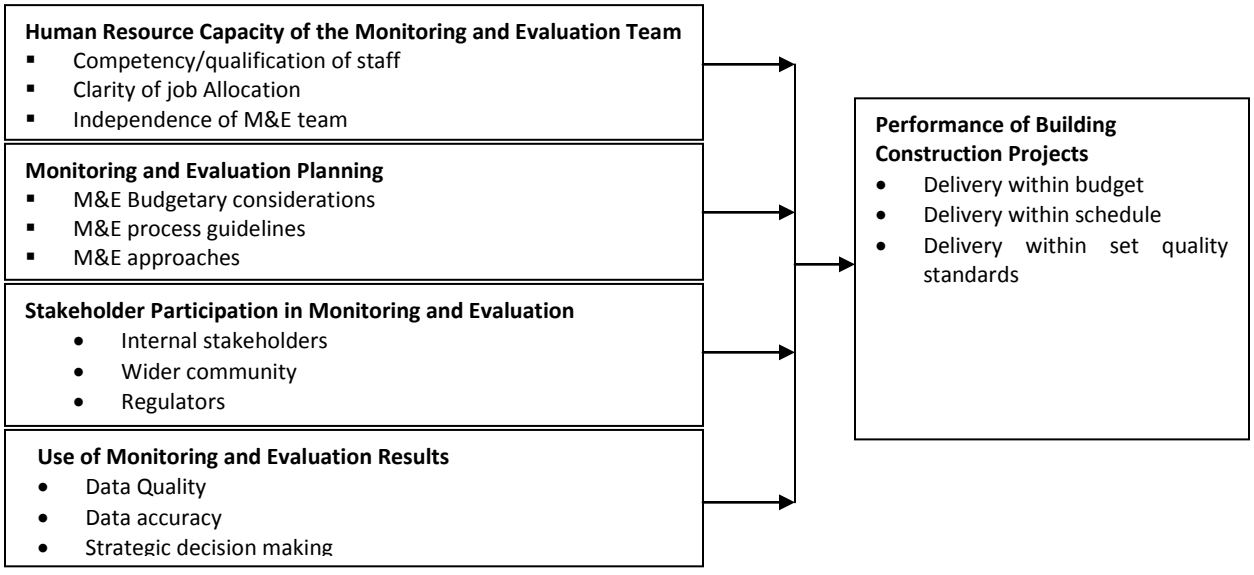

Figure 1: Conceptual Framework

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Empirical Literature

Tidac and Pivac (2014) posit that M&E staff needs requisite skills such as writing and interpreting M&E results, understanding of the various M&E frameworks and tools, project indicators and types of data monitoring and evaluations. This is critical in ensuring that the process is carried out methodically in order to improve the project performance.

Wanjiru and Kimutai (2013) studied the determinants of effective monitoring and evaluation systems in non-governmental organizations within Nairobi County showed that technical expertise of the staff is crucial factor in the implementation of M&E activities. The study further revealed that quite a number of the non-governmental organizations lacked competent M&E officers to carry out the monitoring and evaluation phase of the project. Due to lack of enough competent M&E officers, the non-governmental organizations registered poor implementation of M&E activities with little to show for the program success. The study recommended that a professional association of M&E experts be started in order to develop and improve the quality and quantity of local M&E experts since the success of M&E depends on the competence of M&E officers.

A study by Murei, Kidombo and Gakuu, (2017) focused on the Influence of monitoring and evaluation budget on performance of horticulture projects in Nakuru County, Kenya. Quantitative and qualitative data collection and analysis were employed. A structured questionnaire of Likert was the main tool for quantitative data. Key Informant Interviews and Focus Group Discussions were used to triangulate findings. The results of the study indicated that monitoring and evaluation budget was a major contribution to high performance of horticulture as shown by a correlation coefficient which was statistically significant. The study recommended that monitoring and evaluation budget should be clearly delineated within the overall project budget to give the monitoring and evaluation function the due recognition it plays in contributing to high project performance.

Barasa (2014) examined the influence of monitoring and evaluation tools on project completion in Kenya by taking the case of constituency development fund projects in Kakamega County. Examining the effect of budgetary allocation for monitoring and evaluation planning process influence on project performance of building and construction was among the specific objectives of the study. A sample size of 98 respondents was utilized for the purpose of data collection. Primary data was collected via a questionnaire and secondary data collected via published reports and other documents. The study concluded that there are budgets set to carry out M&E among construction projects in the University of Nairobi and that various activities included in M&E budget were scope of major M&E events and functions, key stakeholder informational needs and expectations, and M&E requirements.

Murungi (2015) examined the influence of project management practices on implementation of donor funded education projects in Kajiado County. The results of the study indicated that the key stakeholders in the project are important to project success. Thus, effective implementation of M&E activities require active participation of the stakeholders involved. The study noted that stakeholders involvement promote project ownership and sustainability especially when they are involved throughout the life cycle of the project. The study recommended that stakeholders need to be engaged in the formulation and implementation processes, paying attention to their needs to ensure their maximum participation in the project.

Mugambi and Kanda (2013) examined determinants of effective monitoring and evaluation of strategy implementation of community based projects and found out stakeholders participation has significant influence on the effective M&E implementation. This

conclusion was informed by the large proportion of respondents who felt that stakeholder participation in the implementation of M&E activities enhance the program success. However, the study noted that only a third of the respondents were involved in the implementation of M&E activities implying that only a handful of the stakeholders are involved in the M&E implementation activities.

Leuzzi (2013) carried out a study to determine how the use of monitoring and evaluation results influences project success. The results of the study indicate that the use of M&E project results enhances Project Delivery Capability thereby increasing the success rate of a project. The study established that the use of M&E results helps in giving the management an accurate picture of the project progress on the success of the project. The study established that the use of M&E results can be done at different stages of the project, the use of M&E project results at kick-off guarantees that all stakeholders read from the same page with regard to responsibilities and expectations. The study also established that the as the project progresses, use of M&E project results keep stakeholders aware of the current state of affairs and it keeps the project team on top of project tasks.

Another study by Taylor (2009) sought to determine how the use of result based M&E influences the success of a project. The study specifically sought to examine the effect of using appraisal to determine the possibility of project success. The study found that after a project has been initiated, appraisal should be carried out at defined intervals. The study established that reviews should be used to collect information on probable deviations from the original project goals. The study further concluded that the use of use of result based M&E helps in addressing any emerging concerns of the project as envisaged by the manager.

METHODOLOGY

The study employed a descriptive survey design based on a survey of the building construction companies in Nairobi County. Descriptive design was employed because it focused on complex analysis to determine the association between the variables. The target population for this study was the 5,948 building construction firms in Nairobi County which were licensed by NCA. The unit of observation was the Project managers from those firms. The study used stratified sampling method. The strata were divided into NCA 1 to NCA 7. The Krejcie and Morgan's method was used to determine the sample size of the population under study. This method used 361 respondents as a sample size. A research questionnaire was the main tool for data collection. The pilot study was conducted on 9 respondents which represented 3% of the study populace who were not incorporated into the final study. The multiple regression model was presented as below:

$Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3+ \beta_4X_4 + \varepsilon$

Where:

Y = Performance of Building Projects

X_1 = Human resource capacity of the Monitoring and Evaluation Team

X_2 = Monitoring and Evaluation Planning

X_3 = Stakeholder Participation in Monitoring and Evaluation

X_4 = Use of Monitoring and Evaluation Results

ε is error term

β_0 represents the constant

β_1,2,3,4 are regression coefficients.

RESULTS

Descriptive Results of Human Resource Capacity of the M & E Team

The study established the influence of Human Resource Capacity of the Monitoring and Evaluation team on performance of building construction projects in Nairobi County, Kenya. The respondents rated statements on human resource capacity of the

monitoring and evaluation team and the results were presented in Table 1.

There was an agreement that the staff involved in M & E have background in the use of IT to a high extent (M = 3.57 ; SD = 1.44), the staff involved in M & E are competent with the required skills to a high extent (M = 4.62 ; SD = 1.04), the staff involved in M & E understand the clarity of the responsibilities given to a moderate extent (M = 3.38 ; 1.17), the staff involved in M & E are independent in their operations to a moderate extent (M = 3.39 ; SD = 1.42) and that there was enough number of staff involved in M & E to a moderate extent (M = 2.75 ; SD = 1.34). The results implied that the human resource capacity of the M & E team is high with experience, competence and required skills (Average M = 3.54). An overall standard deviation reveal that the respondents had very small variations in their responses (Average SD = 1.28).

The findings were consistent with Tidac and Pivac (2014) who indicated that M & E staff needs requisite skills such as writing and interpreting M&E results, understanding of the various M&E frameworks and tools, project indicators and types of data monitoring and evaluations.

Table 1: Descriptive Results of Human Resource Capacity of the M & E Team

Statement	Mean	Standard Deviation
The staff involved in M & E have background in the use of IT	3.57	1.44
The staff involved in M & E are competent with the required skills	4.62	1.04
The staff involved in M & E understand the clarity of the responsibilities given	3.38	1.17
The staff involved in M & E are independent in their operations	3.39	1.42
There is enough number of staff involved in M & E	2.75	1.34
Average	**3.54**	**1.28**

Descriptive Results of M & E Planning

The study determined the influence of Monitoring and Evaluation Planning on performance of building construction projects in Nairobi County, Kenya. The respondents rated statements on Monitoring and Evaluation Planning and the results are presented in Table 1.

The results indicated that there was M&E Budgetary considerations during planning process to a high extent (M = 3.90 ; SD = 1.39), M & E approaches were normally predetermined during planning to a moderate extent (M = 3.34 ; SD = 1.57) and that baseline surveys were normally factored in during the M & E planning process to a high extent (M = 3.88 ; SD =1.41). It was also established that the frequency of the M & E is normally determined during the planning process to a high extent (M = 3.61 ; SD = 1.55) and the M & E systems were normally determined during the M & E planning process to a high extent (M = 3.68 ; SD = 1.56).

The results implied that there was M&E Budgetary considerations during planning process, baseline surveys were normally factored in during the M & E planning process, the frequency of the M & E is normally determined during the planning process and the M & E systems are normally determined during the M & E planning process (Average M = 3.68). A standard deviation of 1.49 indicated that the responses did not differ much from the average. Murei, Kidombo and Gakuu, (2017) indicated the importance of M & E planning in projects.

Table 2: Descriptive Results of M & E Planning

Statement	Mean	Standard Deviation
There is M&E Budgetary considerations during planning process	3.90	1.39
M & E approaches are normally predetermined during planning	3.34	1.57
Baseline surveys are normally factored in during the M & E planning process	3.88	1.41
The frequency of the M & E is normally determined during the planning process	3.61	1.55
The M & E systems are normally determined during the M & E planning process	3.68	1.56
Average	**3.68**	**1.49**

Descriptive Results of Stakeholder Participation in M & E

The study examined the influence of Stakeholder Participation in Monitoring and Evaluation on performance of building construction projects in Nairobi County, Kenya. The respondents rated statements on Monitoring and Evaluation Planning and the results are presented in Table 3.

The respondents indicated that there was involvement of the employees during the M & E process to a high extent (M = 3.61 ; SD = 1.39), there was involvement of the community members during the M & E process to a high extent (M = 3.97 ; SD = 1.31) and that there was involvement of the government officials from NCA during the M & E process to amoderate extent (M = 3.26 ; SD = 1.28). It was also indicated that stakeholders were involved in the planning of the M & E systems to a high extent (M = 3.57 ; SD = 1.38) and that project beneficiaries were involved in the implementation stage of the M & E systems to a high extent (M = 3.55 ; SD = 1.40).

The findings implied that there was involvement of the employees and community members during the M & E process to a high extent but involvement of the government officials from NCA during the M & E process is moderately done. The findings also implied that stakeholders and project beneficiaries were involved in the planning of the M & E systems (Average M = 3.59). The findings showed less variation (Average SD = 1.35). Murungi (2015) also agreed that stakeholder's involvement promote project ownership and sustainability especially when they are involved throughout the life cycle of the project.

Table 3: Descriptive Results of Stakeholder Participation in M & E

Statement	Mean	Standard Deviation
There is involvement of the employees during the M & E process	3.61	1.39
There is involvement of the community members during the M & E process	3.97	1.31
There is involvement of the government officials from NCA during the M & E process	3.26	1.28
Stakeholders are involved in the planning of the M & E systems	3.57	1.38
Project beneficiaries are involved in the implementation stage of the M & E systems	3.55	1.40
Average	**3.59**	**1.35**

Descriptive Results of Application of M & E Results

The study analyzed the influence of the application of Monitoring and Evaluation results on performance of building construction projects in Nairobi County, Kenya. The respondents rated statements on application of Monitoring and Evaluation results and the results are presented in Table 4.

The results indicated that the use of M&E results helps to obtain accurate data on the project progress

to a high extent (M = 4.61 ; SD = 0.79), the use of M&E results helped in giving the management an accurate data (information) of the project progress to a high extent (M = 4.77 ; SD = 0.42) and that the use of M&E results enabled the management to identify the variation of the projects from the project management plan to a high extent (M = 4.53 ; SD = 0.50). The study also established that the use of M&E results enabled the project manager and the management in making strategic decision regarding corrective actions were taken to correct the project (M = 4.30 ; SD = 1.09) but the use of M&E results allowed the project managers and the management to evaluate the progress of activities against the plan to a moderate extent (M = 3.05; SD = 1.40).

The results implied that the use of M&E results helped to obtain accurate data on the project progress, helped in giving the management an accurate data (information) of the project progress, enabled the management to identify the variation of the projects from the project management plan and enabled the project manager and the management in making strategic decision regarding corrective actions (Average M = 4.25). Based on a small standard deviation of 0.84,it was concluded that the responses were not varied.

The findings were consistent with Leuzzi (2013) who indicated that the use of M&E project results enhanced Project Delivery Capability thereby increasing the success rate of a project. The study established that the use of M&E results helped in giving the management an accurate picture of the project progress on the success of the project.

Table 4: Descriptive Results of Application of M & E Results

Statement	Mean	Standard Deviation
The use of M&E results helps to obtain accurate data on the project progress	4.61	0.79
The use of M&E results has helps in giving the management an accurate data (information) of the project progress	4.77	0.42
The use of M&E results allows enables the management to identify the variation of the projects from the project management plan	4.53	0.50
The use of M&E results enables the project manager and the management in making strategic decision regarding corrective actions are taken to correct the project	4.30	1.09
The use of M & E results allows the project managers and the management to evaluate the progress of activities against the plan	3.05	1.40
Average	**4.25**	**0.84**

Descriptive Results of Performance of Building Projects

The study established the performance of building projects managed by the construction firms licensed by NCA in terms of quality, time and costs deliverables. The respondents rated statements on performance of building projects and the results are presented in Table 5.

The results indicated that the first phases of the project had been delivered within time scheduled to a high extent (M = 3.60; SD = 1.54). However, there was an agreement that the first phases of the projects had been delivered within budget to a moderate extent (M = 3.47; SD = 1.47), the first phases of the project had been delivered within the set quality standards to a moderate extent (M = 3.03; SD = 1.40) and that the level of stakeholder satisfaction on the phases of the project delivered so far is good to a moderate extent (M = 2.98; SD = 1.45). Generally, the findings implied that performance of building projects in terms of

time, costs and quality within Nairobi County has been moderate (Average M = 3.27).

Table 5: Descriptive Results of Performance of Building Projects

Statement	Mean	Standard Deviation
The first phases of the project have been delivered within budget	3.47	1.47
The first phases of the project have been delivered within time scheduled	3.60	1.54
The first phases of the project have been delivered within the set quality standards	3.03	1.40
The level of stakeholder satisfaction on the phases of the project delivered so far is good	2.98	1.45
Average	**3.27**	**1.46**

Correlation Analysis

The results indicated that Human Resource of M & E Team has a positive and significant influence on the performance of the building projects (r = 0.685; P-Value < 0.01). The findings implied that having highly competent M & E team increases the performance of building projects significantly. The findings agreed with Wanjiru and Kimutai (2013) who showed that technical expertise of the staff is crucial factor in the implementation of M&E activities and project performance thereafter.

The results showed that M & E planning has a positive and significant influence on the performance of the building projects (r = 0.707; P-Value < 0.01). The findings implied that better M & E planning increases the performance of building projects significantly. The findings were consistent with Barasa (2014) who indicated that M & E planning of the M&E budget, scope of major M&E events and functions, key stakeholder informational needs and expectations and M&E requirements enhances project performance.

It was also established that Stakeholder participation in M & E has a positive and significant influence on the performance of the building projects (r = 0.341; P-Value < 0.01). The findings implied that more involvement of stakeholders in M & E better M & E increases the performance of building projects significantly. Mugambi and Kanda (2013) similarly established that stakeholder's participation has significant influence on the effective M&E implementation.

The results also showed that use of M & E results has a positive and significant influence on the performance of the building projects (r = 0.735; P-Value < 0.01). The findings implied that the more M & E results were used in building projects, the more the performance of building projects increases significantly. The findings were consistent with Leuzzi (2013) who indicated that the use of M&E results helps in giving the management an accurate picture of the project progress on the success of the project.

Table 6: Correlation Analysis

		Human Resource of M & E Team	M&E Planning	Stakeholder participation in M & E	Use of M & E Results	Performance
Human Resource of M & E Team	Pearson Correlation	1				
	Pearson	.622**	1			

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M&E Planning	Correlation					
Stakeholder participation in M & E	Pearson Correlation	.015	.023	1		
Use of M & E Results	Pearson Correlation	.545**	.405**	.361**	1	
Performance	Pearson Correlation	.685**	.707**	.341**	.735**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	259	259	259	259	259

** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

In the model summary, the findings showed the coefficient of determination which explains the variation in performance of building projects accounted for by M & E. The findings in Table 7 indicated that M & E account for up to 78.8% of the variation in performance of building projects in Kenya (R^2 = 0.788). This implied that the remaining 21.2% of the variation in performance of building projects in Kenya is explained by other factors other than M & E.

Table 7: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.888	0.788	0.785	0.56162

Predictors: (Constant), Use ME Results, Stakeholder participation, M & E Planning, Human Resource of M & E Team

ANOVA

The ANOVA findings from the regression model were used to show whether the regression model was fit. As shown in Table 8, the value of F statistic was significant (Sig = .000, <.05). This implied that the regression model was fit. The findings implied that the regression model linking M & E to performance of building projects can be used to predict future outcomes.

Table 8: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	297.84	4	74.46	236.07	.000
Residual	80.116	254	0.315		
Total	377.956	258			

Dependent Variable: Performance of Building Projects. Predictors: (Constant), Use ME Results, Stakeholder participation, M & E Planning, Human Resource of M & E Team.

Model Coefficients

The model coefficients were used to achieve the study objectives. The results in Table 8 indicated that Human Resource of M & E Team has a positive and significant influence on performance of building projects (B = 0.318 ; P-value < 0.01). The results implied that an increase in the team members with better human resource leads to an increase in performance of building projects by 0.318 units. The findings were consistent with Mulandi (2013) who

indicated that M&E staff technical expertise has significant influence on the implementation of M&E activities.

The results of the study also established that M & E planning has a positive and significant influence on performance of building projects (B = 0.364; P-value < 0.01). The results implied that an increase in M & E planning leads to an increase in performance of building projects by 0.364 units. Mugo (2014) also established that M & E planning has a statistical significant effect on system implementation in development projects.

It was also shown that stakeholder participation in M & E has a positive and significant influence on performance of building projects (B = 0.222; P-value < 0.01). The results imply that an increase in stakeholder participation in M & E leads to an increase in performance of building projects by 0.222 units. The findings are consistent with Mibey (2011) who established that stakeholder involvement was a factor influencing implementation of M&E and project performance.

Lastly, it was also established that use of M & E results has a positive and significant influence on performance of building projects (B = 1.110; P-value < 0.01). The results implied that an increase in the use of M & E results leads to an increase in performance of building projects by 1.110 units. The findings were consistent with Taylor (2009) who indicated that the use of use of result based M&E helped in addressing any emerging concerns of the project as envisaged by the manager thus improving project success.

Table 9: Model Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	- 4.722	0.378		-12.48	0.000
Human Resource of M & E Team	0.318	0.057	0.233	5.611	0.000
M & E Planning	0.364	0.033	0.407	10.988	0.000
Stakeholder Participation in M & E	0.222	0.036	0.201	6.253	0.000
Use of M & E results	1.110	0.116	0.37	9.603	0.000

Dependent Variable: Performance of Building Projects

Regression Model

Performance of Building Projects = (4.722) + 0.318 X_1 + 0.364 X_2 + 0.222 X_3 + 1.110 X_4

Where: Y = Performance of Building Projects

X_1 = Human resource capacity of the Monitoring and Evaluation Team

X_2 = Monitoring and Evaluation Planning

X_3 = Stakeholder Participation in Monitoring and Evaluation

X_4 = Use of Monitoring and Evaluation Results.

CONCLUSION

According to the findings, the study concluded that Human Resource of M & E Team has a positive and significant influence on performance of building projects hence an increase in the team members with better human resource leads to an increase in performance of building projects. Training as a continuous process enables team to gradually develop their capacity over time, which improves competency and skills.

The study also concluded that M & E planning has a positive and significant influence on performance of building projects hence an increase in M & E planning leads to an increase in performance of building projects. M & E planning considerations is characterized by budgetary considerations, establishment of M&E process guidelines and

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determining the suitable M&E Approaches for each project.

Another conclusion by the study was that stakeholder participation in M & E has a positive and significant influence on performance of building projects hence an increase in stakeholder participation in M & E leads to an increase in performance of building projects.

It was concluded that use of M & E results has a positive and significant influence on performance of building projects hence an increase in the use of M & E results leads to an increase in performance of building projects.

RECOMMENDATIONS

The study recommended construction firms to use project teams with high experience, competence and required skills in order to enhance project performance. To enhance project performance, the study recommended that the construction firms should consider M & E Budgetary considerations during planning process, factor in baseline surveys during the M & E planning process, determine the frequency of the M & E as well as M & E systems during the planning process.

The study established that there is a need for involvement of the employees and community members during the M & E process, government officials from NCA should also be involved during the M & E process as well as involvement of project beneficiaries in the planning of the M & E systems so as to establish higher project performance indicators. There is also a need to use the M & E results well since the use of M&E results helps to obtain accurate data on the project progress, helps in giving the management an accurate data (information) of the project progress, enables the management to identify the variation of the projects from the project management plan and enables the project manager and the management in making strategic decision regarding corrective actions.

Areas for Further Study

It was established in the regression analysis that M & E account for up to 78.8% of the variation in performance of building projects in Kenya while the remaining 21.2% of the variation in performance of building projects in Kenya is explained by other factors other than M & E. Other studies can be conducted to find out whether the other factors other than M & E are critical in performance of building construction projects in Kenya. Future studies can also seek to establish whether similar results can be obtained in projects conducted by public developers since the focus of this study was private construction firms.

REFERENCES

Adam, M. S., & Urquhart, C. (2009). No man is an island: Social and human capital in IT capacity building in the Maldives. *Information and Organization*, *19*(1), 1-21.

Ambasa, C.M (2013). Factors Influencing Sustainability of Housing Projects in Kenya: A Case of KCB Simba Villas Estate Embakasi Project, Nairobi County, Unpublished MBA Project, University of Nairobi

Assaf and Al-Hejji (200. Causes of delays in Saudi Arabian public sector construction projects. *Construction Management and Economics*, *27*(1), 3-23.

Babbie, E. R., & J, M. (2006). *The Practice of Social Research. Cape Town*: Oxford University Press South Africa.

Blayse, A. M., & Manley, K. (2004). Key influences on construction innovation. *Construction innovation*, *4*(3), 143-154.

Chen, H. and P. Rossi (1996). *Issues in the Theory-driven Perspective*. Evaluation and Program Planning (12)4: 299–306.

Cooper, D.R., & Schindler, P.S. (2011). *Business Research Methods*. (8th Ed.). Boston: McGraw-Hill Irwin.

Dithebe, K, Aigbavboa C, Oke A & Muyambu M (2018). Factors influencing the Performance of the South African Construction Industry: A case of Limpopo Province.

Donaldson, S. I. (2009). Overcoming our negative reputation: Evaluation becomes known as a helping profession. American Journal of Evaluation, 22, 355-361.

Eckerd, P., Huemann, M., & Ringhofer, C. (2015). Stakeholder inclusiveness: Enriching project management with general stakeholder theory. *Project Management Journal*, *46*(6), 42-53.

Estrella, M., Blauert, J., Gonsalves, J., Campilan, D., Gaventa, J., Guijt, I., & Ricafort, R. (Eds.). (2000). *learning from change: Issues and experiences in participatory monitoring and evaluation*. IDRC.

Faridi, A. & El-Sayegh, S. (2006). Significant factors causing delay in the UAE construction industry, *Construction Management and Economics* 24(11): 1167–1176.

Fore, S. (2015). An analysis of factors influencing the quality of housing construction projects in the Western Cape, South Africa. *International Journal of Science and Technology*, *1*(1), 7-13

Forum Solnit, (2013). *Monitoring and Evaluation Manual*.

Gall, M. D., Gall, J. P., & Borg, W. R. (2013). *Applying educational research: How to read, do, and use research to solve problems of practice.* Pearson Higher Ed.

Gladys, L. A., Katia, R., Lycia, L., & Helena, H. (2010). Challenges in Monitoring and Evaluation: An Opportunity to Institutionalize M&E Systems.

Göçer, Ö, Hua, Y., & Göçer, K. (2015). Completing the missing link in building design process: Enhancing post-occupancy evaluation method for effective feedback for building performance. *Building and Environment*, *89*, 14-27.

Görgens, M., & Kusek, J. Z. (2010). *Making monitoring and evaluation systems work: A capacity development tool kit*. The World Bank.

Gumz, J. & Parth, F. R. (2007). *Why use a hammer when you need a wrench: results-based monitoring and evaluation of projects*. EMEA, Budapest, Hungary. Newtown Square, PA: Project Management Institute.

Haseeb, M., Lu, X., Bibi, A., Dyian, M. & Rabbani, W. (2011). Causes and Effects of Delays in Large Construction Projects of Pakistan. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(4), 18-42.

Hosley, C. (2009). What's Your Theory? *Tips for Conducting Program Evaluation*, Issue 4. Wilder Research

J-PAL (Abdul Latif Jameel Poverty Action Lab). (2003). *Program Theory Assessment*.

Khan, M. A. (2010). *Planning for and monitoring of project sustainability*. A guide line or concepts, issuing and tools UNDP senior advisor M&E adhan@sitnet.ik. Accessed December 2013

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

Kombo, D.K., & Tromp, D.L.A., (2009). *Proposal and Thesis Writing: An Introduction.* Nairobi Kenya: Don Bosco Printing Press.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kowalczyk, D. (2015). *Survey Research: Definition, Methods & Types*.

Kusek, J. Z., & Rist, R. C. (2014). *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. World Bank Publications.

Landiyanto, E. (2015). Transformation of the national monitoring and evaluation arrangement in decentralized Indonesia.

Leuzzi, N., (2013). *Logical framework approach to development in Ghana*.

Lewis , P., Thornhill, A., & Saunders, M. (2007). *Research Methods for Business Students.* London: Pearson Business.

Lundvall, B. Å. (Ed.). (2010). *National systems of innovation: Toward a theory of innovation and interactive learning* (Vol. 2). Anthem press.

Madden, J., Stuart, R. (2010). *One Hundred Rules for NASA Project Managers*.

Mayne, J., Zapic-Goni, E. (2009) *Monitoring Performance in the Public Sector*. New Brunswick, NJ: Transaction Books.

McEvoy, P., Brady, M., & Munck, R. (2016). Capacity development through international projects: a complex adaptive systems perspective. *International Journal of Managing Projects in Business*, *9*(3), 528-545.

Miller, R., Lessard, D. R., Michaud, P., & Floricel, S. (2001). *The strategic management of large engineering projects: Shaping institutions, risks, and governance*. MIT press.

Msila, V., & Setlhako, A. (2013). Evaluation of Programs: Reading Carol H. Weiss. *Universal Journal of Educational Research*, *1*(4), 323-327.

Mugenda, A.G. (2008) *Social Science Research.* Theory and Principles. Applied research

Mugenda, O. M., & Mugenda, A. G. (2012). *Research methods dictionary*.

Mugenda, O. M., & Mugenda, G. A. (2003). *Research methods Quantitative and Qualitative Approaches. Nairobi: ACTS*.

Mugo, P. M. (2014). Monitoring and evaluation of development projects and economic policy development in Kenya. *Unpublished Thesis*.

Murei, L. C., Kidombo, H., & Gakuu, C. (2017). Influence of monitoring and evaluation budget on performance of horticulture projects in Nakuru County, Kenya.

Murungi, M. N. (2015). Influence of project management practices on implementation of donor funded education projects in Kajiado County, Kenya. *Unpublished master's thesis). University of Nairobi*.

Muthaura, R. W. (2014). *Challenges facing strategy implementation in the ministry of lands, housing and urban development in Kenya*.

Ndege, V. A. (2016). *Influence of monitoring and evaluation tools on the performance of women empowerment projects*: a case of Changamwe Constituency, Mombasa County.

Nicholas, J. M., & Steyn, H. (2017). *Project management for engineering, business and technology*. Routledge.

Nyonje, R. O., Ndunge, K. D., &Mulwa, A. S. (2012). Monitoring and Evaluation of Projects and Programs - *A Handbook for Students and Practitioners*. Nairobi, Kenya: Aura Publishers.

Olusola, A.J., Olugbenga, O.M., Adeoluwa, Z.O., & Oluwagbemiga, O.E. (2013). Accounting Information on Investment in Nigerian Poultry Agricultural Sector. *Research Journal of Finance and Accounting,* Vol. 4(19).

Owolabi, J.D., Amusan, L. M., Oloke, C. O., Olusanya, O., Tunji-Olayeni, P., Owolabi, D., Peter, J. & Omuh, I. (2014). Causes and Effect of Delay on Project Construction Delivery Time. *International Journal of Education and Research*, 2 (4), 197-208.

Pawson and Tilley (2004). Theory-based evaluation and types of complexity. *Evaluation*, *10*(1), 58-76.

Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. Sage.

Ravitch, S. M., & Riggan, M. (2012). *Reason and rigor*.

Render, B., Stair, R.M & Hanna, M.E. (2012). *Quantitative Analysis for Management,* 11th edition. New Jersey: Prentice Hall.

Rossi, P, M.W Lipsey, and H.E Freeman, (2014). Evaluation: *A Systematic Approach*. 7. Thousand Oaks: Sage, 2014.

Sekaran, U. (2006). *Research Methods for Business: a skill building approach*, 4th Edition. London: John Wiley and Sons

Shapiro J. (2014). *Monitoring and Evaluation*. Johannesburg: CIVICUS

Silvius, A. G., Kampinga, M., Paniagua, S., & Mooi, H. (2017). Considering sustainability in project management decision making; an investigation using Q-methodology. *International Journal of Project Management*, *35*(6), 1133-1150.

Stein, D., & Vaulters, C. (2012). *Understanding theory of change in international development*.

Stufflebeam, D. (2001). Evaluation models. *New directions for evaluation*, *2001*(89), 7-98.

Tall, O. K. B. (2009). The role of national, regional and international evaluation organizations in strengthening country-led monitoring and evaluation systems. *Country-led monitoring and evaluation systems*, 119.

Thayer, C. E., & Fine, A. H. (2011). Evaluation and outcome measurement in the non-profit sector: Stakeholder participation. *Evaluation and Program Planning*, *24*(1), 103-108.

Tilahun, S. (2016). *Assessment on performance, progress and gap of Project Design, Monitoring and Evaluation system; the Case of World Vision Ethiopia Grant Projects from 2014-2015*(Doctoral dissertation, St. Mary's University).

Tuckermann, B. C. (2008). Challenges and key success factors to integrating learning and change in monitoring and evaluation of development projects. *Knowledge management for development journal*, *4*(1), 21-30.

Wang & Gibson (2008). A *study of pre-project planning and project success using Ann and regression models.*

Wang, X., & Huang, J. (2006). The relationships between key stakeholders' project performance and project success: Perceptions of Chinese construction supervising engineers. *International Journal of Project Management*, *24*(3), 253-260.

Wanjiru, W. E., & Kimutai, G. (2013). Determinants of Effective Monitoring and Evaluation Systems in Non-Governmental Organizations within Nairobi County, Kenya. Unpublished thesis.

Worldbank. (2010). *Monitoring and Evaluation*: Some Tools, Methods and Approaches.

Zall Kusek, J., & Rist, R. (2004). *Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners*. The World Bank.

Zanjirchi, S. M., & Moradi, M. (2012). Construction project success analysis from stakeholder theory perspective. *African Journal of Business Management*, *6*(15), 5218-5225.

Zikmund, G., Babin, B. J., & Carr, J. C. M. Griffin (2010). *Business Research Method*.

Zulu, S. & Chileshe, N. (2008). The impact of service quality on project performance: a case study of building maintenance services in Zambia, in Proc. of the 3rd Built Environment Conference, Association of Schools of Construction of Southern Africa, and Cape Town, South Africa.