Project Management Scientific Journal
PMSJ 2026, Volume 9, Issue 1, Page 21-26
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Scientific Journal Impact Factor (SJIF): 5.984

Internal Standard Serial Number (ISSN): 2676-2811
DOI: https://doi.org/10.4314/pmsj.v9i1.2
Web: https://damaacademia.com/index.php/pmsj/

Monitoring and Evaluation Practices and Performance of Selected Building Construction Companies in Kiambu County, Kenya

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Abstract

This study examined the impact of project planning, a key monitoring and evaluation (M&E) practice, on the performance of 168 NCA-registered building construction firms in Kiambu County, Kenya. Applying Systems Theory and a descriptive research design, the study utilized multiple linear regression to analyze data from 251 participants. The results identified a significant positive correlation (P = .803, p < 0.001) between project planning and overall performance, noting that while planning often aligns with high-level goals, firms frequently struggle to develop specific M&E frameworks.

Projects that maintained clear objectives and consistent reviews demonstrated superior cost efficiency and timeliness. Ultimately, the study concludes that systematic planning is essential for success and recommends that firms institutionalize risk assessments and periodic reviews, while advocating for standardized government guidelines to mitigate budget overruns and construction delays.

Keywords: *Monitoring and Evaluation Practices; Project Performance; Building Construction companies.*

Citation: *Ndung'u, N., S., Ombati, R., & Gakii, A. (2026), "Monitoring and Evaluation Practices and Performance of Selected Building Construction Companies in Kiambu County, Kenya", Project Management Scientific Journal, 2026, 9(1): pp.21-26. DOI: https://doi.org/10.4314/pmsj.v9i1.2*

Submitted: 20 March, 2026 | Accepted: 04 May, 2026 | Published: 28 May, 2026

1.0 INTRODUCTION

The global construction industry significantly impacts economic growth, contributing approximately 13% of global GDP and providing extensive employment (Ogunmakinde *et al.*, 2024). While driven by urbanization and technological advancements, the sector faces persistent challenges in quality, completion time, and cost control (Albtoush *et al.,* 2022). Labor shortages and supply chain disruptions further exacerbate delays (Bahr & Laszig, 2021). While inflation and poor financial management lead to recurring budget overruns (Iliyas & Barca, 2025). Additionally, inadequate risk management and poor stakeholder collaboration worsen project outcomes (Albtoush *et al.,* 2022)

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Success relies on robust M&E practices (Nzingu & Karanja, 2019), as effective project planning simplifies risk mitigation and scheduling (Kissi *et al.,* 2019). In Kenya, the industry reached a $15.6 billion valuation in 2023, with projected annual growth exceeding 5% through 2028 (Globaldata, 2024). In Kiambu County, 168 registered NCA1-NCA5 firms strive to meet rising housing demand (Karugia & Mwanzia, 2025). However, these firms frequently face cost overruns and delays due to inefficient resource planning and complex regulations (Kigwe, 2024). Addressing these performance challenges is essential for sustainable development (Ofori, 2023).

1.1 Statement of the Problem

M&E in Kenya is institutionalized through frameworks like Vision 2030, the NCA Act, and the Affordable Housing Programme, which mandate structured oversight and accountability. Despite these frameworks, the industry faces persistent delays, cost overruns, and stalled projects. Evidence suggests many firms have yet to fully institutionalize holistic M&E systems, specifically regarding stakeholder integration and systematic planning. Current research often focuses on public-sector projects, leaving a gap in understanding how specific M&E dimensions impact private companies in Kiambu. This study addresses this gap by investigating how project planning determines performance.

1.2 Objectives of the Study

1.2.1 General Objective

To examine the influence of monitoring and evaluation practices on the performance of selected building construction companies in Kiambu County, Kenya.

1.2.2 Specific Objectives

To assess the effect of project planning on the performance of selected building construction companies in Kiambu County, Kenya.

1.3 Research Hypotheses

H_0: Project planning has no significant effect on the performance of selected building construction companies in Kiambu County, Kenya.

2.0 THEORETICAL REVIEW

2.1 Systems Theory

Ludwig von Bertalanffy's (1950) Systems Theory views projects as sets of interrelated parameters; inputs, processes, and feedback that must be managed holistically to ensure success. This theory anchors project planning as a critical variable influencing performance. In construction, planning must integrate the process with M&E systems to enable operational feedback (von Bertalanffy, 1950). Systematic M&E entrenchment in planning optimizes time, cost, and quality (Kissi *et al.,* 2019).

2.2 Empirical Review

Proper conceptualization of project planning within an M&E framework systematically integrates team building and review programs, allowing for continuous risk and performance monitoring. Research in Nairobi confirms that baseline surveys and budget forecasting significantly improve timeliness and compliance, highlighting the importance of early performance indicators (Njeru & Kirui, 2022). Similarly, studies in Kilifi found that scheduling, budgeting, and communication positively impact implementation success (Kirui & Gichana, 2024).

However, existing literature has limitations. Studies in Nigeria on tools like PERT and WBS offer limited direct value to the Kenyan construction context (Olaremi *et al.,* 2024). Furthermore, while research in Nairobi indicates that planning improves outcomes when moderated by monitoring (Samo, 2025), it often fails to disaggregate specific M&E components like team coordination and formal review sessions. This creates a research gap regarding how integrated M&E planning and systematic review cycles uniquely contribute to construction performance, specifically within Kiambu County.

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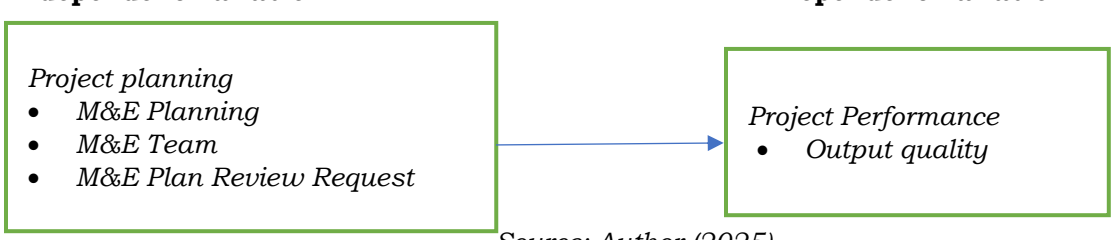
Figure 1: Conceptual Framework



Source: Author (2025)

3.0 METHODOLOGY

This study adopted a descriptive research design, targeting 672 key individuals from 168 registered building construction companies in Kiambu County. Using stratified random sampling and Yamane's formula, a sample size of 251 participants was determined. Primary data were gathered via semi-structured questionnaires and analyzed using SPSS version 27. The analytical approach utilized multiple linear regression.

$$Y = \beta_0 + \beta_1 X_1 + e$$

Where:

Y = Project Performance
$\beta_{(0)}$ = Y- Intercept
$\beta_{(1)}$ = Project planning coefficient.
X_1 = Project Planning
e = error term

4.0 RESEARCH FINDINGS AND DISCUSSIONS

The study achieved a 95.22% response rate (n=239). Reliability was confirmed with Cronbach's Alpha values of 0.812 for Project Planning and 0.937 for Project Performance.

Table 4.1 Reliability Statistics

Variable	*Cronbach's Alpha*	*N of Items*
Project Planning	.812	5
Project Performance	.937	4

Spearman's rank-order correlation revealed a strong, positive relationship between planning and performance (P= 0.818, p < 0.01). This indicates that improved planning practices are associated with higher levels of performance.

Table 4.2 Correlation Results

			Planning	Performance
Spearman's rho	Planning	Correlation Coefficient	1.000	.818**
		Sig. (2-tailed)	.	.000
		N	239	239
	Performance	Correlation Coefficient	.818**	1.000
		Sig. (2-tailed)	.000	.
		N	239	239

4.1 Descriptive statistics

Descriptive results showed planning practices are moderately high (Mean = 3.68, SD = 1.072), aligning with the Resource-Based View. While alignment with organizational goals was high (Mean = 3.81), gaps remain in developing clear, project-specific M&E plans (Mean = 3.45).

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Table 4.3 Project Planning

	Mean	Standard Deviation
Each project has a clear monitoring and evaluation (M&E) plan.	3.45	1.218
A dedicated M&E team oversees project implementation.	3.74	1.070
M&E plans are regularly updated to meet project needs.	3.69	1.026
Planning aligns with organizational goals	3.81	.967
Effective M&E planning ensures successful construction delivery.	3.72	1.078
Average	**3.68**	**1.072**

Performance was rated highly (Mean = 3.94), especially regarding quality (Mean = 4.43) and cost control (Mean = 4.51), though timely completion (Mean = 3.41) remains a challenge.

Table 4.4 Performance of the Building Construction Companies

	Mean	Standard Deviation
M&E practices enhance project output quality	4.43	.861
Projects are completed on time.	4.41	.854
Projects stay within allocated budgets	4.51	.777
M&E boosts long-term company performance	4.41	.865
Average	3.94	0.839

4.2 Regression Analysis

Regression confirmed project planning as a significant predictor of performance (R^2 = 0.645). $p < 0.05$), explaining 64.5% of the variance.

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803[a]	.645	.644	.46019

The ANOVA results, which depict that the regression model was statistically significant ($F(1, 237) = 430.973$, $p < 0.05$).

Table 4.6Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.271	1	91.271	430.973	.000[b]
	Residual	50.192	237	.212		
	Total	141.463	238			

The regression coefficients indicated that planning has a positive and statistically significant effect on performance ($\beta = 0.762$, $t = 20.760$, $p < 0.05$).

Table 4.7 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.633	.138		11.797	.000
	Planning	.762	.037	.803	20.760	.000

This implies that a unit increase in planning leads to a 0.762 increase in performance. Consequently, the null hypothesis was rejected, concluding that planning significantly influences performance.

$$y = 1.633 + 0.762x_1$$

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4.3 Discussion of findings

Internal consistency was confirmed by Cronbach's Alpha values of 0.812 for project planning and 0.937 for performance, while descriptive results indicated that planning practices are moderately high (Mean = 3.68, SD = 1.072). This alignment with the Resource-Based View and previous studies by (Rubia & Kimaru, 2022) and (Nyaga, 2022) highlights a strong, positive correlation between planning and performance (P = 0.818, $p < 0.01$). Performance was rated highly (Mean = 3.94, SD = 0.839), regarding quality and cost control, despite persistent challenges with timely completion and gaps in formal M&E frameworks.

Regression analysis further established planning as a significant predictor, explaining 64.5% of performance variation (P= 0.645, $p < 0.05$). Consequently, with a significant positive effect (P = 0.762, t = 20.760, $p < 0.05$), the null hypothesis was rejected, proving that effective planning significantly enhances construction performance.

5.0 CONCLUSIONS

5.1 Study summary

The study validated strong internal consistency Cronbach's alpha of 0.812 for planning and 0.937 for performance and established that project planning is a primary driver of construction success. While planning practices are moderately high (Mean = 3.68), they directly account for 64.5% of the variance in performance, which is rated highly (Mean = 3.94), particularly regarding quality and cost. Despite a strong positive correlation (P = 0.818), the research highlights that weak M&E framework continue to cause delays and budget overruns. Consequently, the study rejects the null hypothesis and recommends implementing standardized government guidelines and more rigorous, project-specific review systems to bridge the gap between planning and execution.

5.2 Recommendations

The government should standardize planning and monitoring guidelines to curb delays and cost overruns. Project managers should adopt structured M&E systems grounded in regular risk assessments and clear performance metrics. Involve consumers in the planning phase to align quality expectations. Finally, learning institutions and researchers need to bridge the gap between theory and practice by promoting hands-on M&E training and developing data-driven models to ensure project success.

5.3 Suggestions for further research

Future studies should expand to other counties and infrastructure sectors. Longitudinal designs could better capture dynamic variations over time. Finally, research is needed to investigate the factors explaining the remaining 35.5% variation in performance not addressed here.

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