ISSN: 6314 -6515
Volume 10, Number 2, 2026
International Journal of Innovations in Engineering and Environmental Science

ASSESSMENT OF MONITORING AND EVALUATION PRACTICES FOR OPTIMIZING VALUE FOR MONEY IN MASS HOUSING PROJECT: A CASE STUDY OF ABUJA, NIGERIA

Fai Jotham Joshua; Abdullahi Yusuf Waziri; Sani Abubakar Mohammad.
Department of Quantity Surveying, Faculty of Environmental Technology,
Abubakar Tafawa Balewa University, P.M.B 0248 Bauchi, Nigeria.

ABSTRACT
The study assesses monitoring and evaluation (M & E) practices for enhancing value for money (VfM) in mass housing projects, using Abuja, Nigeria, as a case study. It addresses the gap in effective assessment of M & E practices to optimize VfM in mass housing projects, providing practical insights for policymakers, practitioners, and stakeholders. The goal is to improve project management techniques for better VfM. A quantitative approach was used, with data collected through questionnaires distributed to 125 construction professionals involved in mass housing projects in Abuja. Descriptive statistics was used to analyse the data, with results presented in tables. The findings show that although a basic M & E framework exists, its implementation is only moderate. M & E practices are perceived as having limited impact on key VfM dimensions such as quality control, budget management, and public trust. This suggests that major issues like inconsistent application, weak stakeholder engagement, and governance challenges such as corruption threaten VfM achievement. The study concludes that strengthening technical capacity, digital integration, and funding for M & E must be supported by institutional reforms, anti-corruption measures, and mandatory compliance frameworks to maximise its effectiveness in delivering VfM.

Keywords: Monitoring; Evaluation; Mass Housing; Value for Money; Mass Housing; Project Management.

Introduction
Monitoring and evaluation (M&E) is a process that assists project managers in enhancing performance and achieving results. According to the United Nations Development Programme, M&E aims to enhance current and future management of outputs, outcomes, and impact (UNDP, 2012). Neglecting the roles and effects that monitoring and evaluation would bring to project performance would be detrimental and have a negative impact on the project (Akanbi *et al.*, 2018). Consequently, most public projects experience delays in completion or fail to meet specific goals despite significant investments (Afomachukwu, 2021). Poor performance issues in public projects are often related to inadequate monitoring and evaluation practices (Oluchuckwu, 2025).

Monitoring and Evaluation should be a component of every project (Yusuf, 2022). They serve as the foundation for required mid-course adjustments in policies, programs, or projects and give managers in the public sector information on how well targets and goals are being met (Akanbi et al., 2018). In order to assess project success, monitoring and evaluation entail the methodical use of meticulously thought-out techniques utilizing information management, skills, and planning (Afomachukwu, 2021; Odile & James, 2020; Onifade et al., 2017). Monitoring and evaluation ought to be incorporated into government systems and utilized as a means of providing feedback on the results and repercussions of project performance. In this way, monitoring and evaluation would support decision-makers in ensuring timely implementation of project performance in urban development projects. (Oluchuckwu, 2025).

Nigeria's rapid urban transition has intensified pressure on housing supply, service delivery, and land markets. Classic work on Nigeria's urbanization shows how fast demographic and spatial change outpace institutions and infrastructure. Recently, the World Bank's urbanization review emphasized that Nigeria's shift "from oil to cities" demands better institutions for planning, finance,

and delivery. Abuja, planned as a purpose-built capital was expected to avoid the path-dependency of older cities, yet market pressures and governance gaps have reproduced affordability and delivery problems familiar across the federation. In fact, while Abuja was designed to embody order, efficiency, and modern planning ideals, rapid rural-urban migration, weak institutional frameworks, speculative land markets, and limited financing mechanisms have led to sprawling informal settlements and widening housing deficits (Agbola & Agunbiade, 2009). Scholars argue that without stronger governance structures, the city risks replicating the same inequalities and infrastructural shortfalls that plague Lagos, Kano, and Port Harcourt, despite its original vision as a model capital (Jibril, 2006).

The persistent housing deficit in Nigeria, despite numerous government interventions, highlights critical gaps in the planning, implementation, and oversight of mass housing projects. Issues such as cost overruns, project delays, substandard construction, and lack of transparency in resource utilization have raised concerns about whether these projects achieve Value for Money (VfM) (Eze & Okolie 2019), thus, identified significant shortcomings in M&E implementation in Nigeria's housing sector, yet there is a lack of empirical research specifically linking M&E effectiveness to VfM outcomes in mass housing projects, particularly in Abuja.

The housing deficit in Nigeria creates an urgent and crucial need for academic research to mitigate these effects on construction and building projects. This study investigates the extent to which monitoring and evaluation practices are implemented in mass housing projects, assessing stakeholders' perceptions of the effectiveness of monitoring and evaluation in ensuring VfM in mass housing building projects in Abuja metropolis, targeting professionals involved in these projects. The findings are deemed significant for both industry policy and practices because they equip the stakeholders with evidence-based strategies to mitigate delays that, if left unchecked, will lead to cost overruns and abandonment of projects. Furthermore, the study contributes to the broader conversation of project management to construction projects in Nigeria, which is seen to have shortfalls in terms of monitoring and evaluation challenges, such as creating a framework for checks and balances, as well as standardized regulatory contractual templates to minimize ineffectiveness and mitigate disputes.

LITERATURE REVIEW

Concept of Monitoring and Evaluation

The concept of monitoring and evaluation in project management has been widely acknowledged in the literature. According to Hatry (2013), effective monitoring helps project managers track progress, identify bottlenecks, and take corrective actions in real-time, thereby improving project efficiency. Evaluation complements this by assessing whether the project outcomes align with initial objectives and whether resources have been optimally utilized (OECD, 2019). When applied to mass housing projects, M&E can help stakeholders measure the success of investments, ensure accountability, and enhance service delivery (Bamberger et al., 2012).

A key component of M&E is the establishment of indicators that guide data collection and performance measurement. Indicators are classified into input, process, output, outcome, and impact indicators (Rossi et al., 2018). Input indicators assess the resources allocated to a project, while process indicators evaluate the efficiency of implementation.

In the Nigerian context, robust M&E frameworks are critical for tackling inefficiencies such as cost overruns, delays, and substandard construction. Projects that embed continuous monitoring and strong evaluation mechanisms are more likely to deliver value for money, particularly in resource-constrained environments (Adeleke, 2019). However, the effectiveness of M&E in Nigeria remains constrained by limited resources, inadequate institutional capacity, and weak stakeholder participation. Addressing these challenges are therefore essential to improving both the implementation and outcomes of mass housing schemes in Abuja and beyond.

Role of Monitoring and Evaluation in Housing Projects

Monitoring and evaluation (M&E) play a crucial role in ensuring the successful implementation of housing projects by improving efficiency, accountability, and sustainability. One of the primary functions of M&E in housing projects is to enhance project efficiency by providing real-time data for decision-making. A well-structured monitoring systems enable project managers to detect inefficiencies and make necessary adjustments before they escalate. Evaluation further supports this process by analysing whether the project meets its intended objectives and whether corrective measures have improved performance. In mass housing projects, these processes help to minimize cost overruns and ensure timely delivery of housing units to beneficiaries (Görgens & Kusek, 2009). M&E also promotes transparency and accountability in housing projects by ensuring that financial resources are used effectively. Bamberger et al. (2012) argue that rigorous M&E mechanisms reduce corruption risks and enhance stakeholder confidence in housing programs. By using structured performance indicators, including cost-benefit analysis and impact assessment, housing projects can demonstrate their effectiveness and adherence to public trust (Rossi et al., 2018). In Nigeria, where mass housing projects often face challenges related to mismanagement and inefficiencies, a robust M&E system can provide critical oversight and improve governance (Ohemeng & McCalla, 2020).

Challenges in Implementing Effective Monitoring and Evaluation in Housing Projects

Effective monitoring and evaluation (M&E) in housing projects play a crucial role in ensuring value for money (VfM) by improving project efficiency, accountability, and sustainability. However, numerous challenges hinder the successful implementation of M&E systems. In Nigeria, however, challenges such as inadequate funding, weak institutional frameworks, and lack of technical expertise often hinder effective M&E implementation (Ohemeng & McCalla, 2020). Furthermore, corruption and political interference sometimes distort project reporting and data credibility, making it difficult to assess whether resources are used transparently and optimally. These institutional weaknesses not only limit the impact of M&E but also weaken public trust in housing delivery systems.

Another significant challenge is the lack of technical expertise and capacity among M&E personnel. Housing projects require specialized knowledge to assess aspects such as cost-effectiveness, structural integrity, and sustainability. Institutional And regulatory challenges further impede M&E implementation in housing projects. Inconsistent government policies, bureaucratic inefficiencies, and weak enforcement mechanisms often lead to delays in M&E execution as stated by the World Bank in 2019. In Nigeria, for instance, overlapping responsibilities among various regulatory bodies have resulted in a lack of coordination, thereby reducing the effectiveness of monitoring efforts (Ameh & Odusami, 2019).

Stakeholder engagement and participation also pose challenges to effective M&E in housing projects. Effective M&E requires collaboration among multiple stakeholders, including government agencies, contractors, community representatives, and financial institutions. However, research has shown that poor communication, conflicts of interest, and lack of trust among stakeholders often hinder meaningful participation in M&E processes (Crawford & Bryce, 2020). When key stakeholders are not adequately involved, project evaluations fail to capture diverse perspectives, leading to biased assessments and ineffective decision-making (Görgens & Kusek, 2021).

Finally, the challenge of inadequate data management and technological limitations affects M&E efficiency. Reliable data collection, storage, and analysis are critical for evidence-based decision-making in housing projects. However, many developing countries, including Nigeria, face challenges related to outdated data systems, lack of digital tools, and difficulties in integrating real-time monitoring technologies (Ika et al., 2019). These documented challenges form the basis for the investigative variables in this study's survey instrument.

Value for Money in Mass Housing Projects

Value for Money (VfM) is a multidimensional concept that emphasizes the optimal allocation and utilization of resources to achieve the best possible outcomes, ensuring that public and private investments yield maximum benefits relative to costs (HM Treasury, 2011). Value for Money (VfM) is a critical consideration in mass housing projects, as it ensures that resources are utilized effectively to achieve maximum benefits. VfM is typically assessed through the dimensions of economy, efficiency, effectiveness, and equity (Morallos & Amekudzi, 2008). In the context of mass housing, achieving VfM means delivering quality housing units at the lowest possible cost while meeting the intended social, economic, and environmental objectives (Ogunsemi & Aje, 2005). Studies indicate that the cost and quality trade-offs in mass housing require a holistic approach to procurement and project management (Love et al., 2016).

Cost-benefit analysis is a common technique used to evaluate VfM in mass housing projects. The approach assesses the monetary and non-monetary benefits relative to costs, ensuring that investments are justified (Boardman et al., 2017).

However, there is limited empirical assessment of how effectively these M&E practices are implemented and there actual impact in achieving VfM in mass housing projects with challenges including inadequate funding, bureaucratic inefficiencies, corruption, and poor project monitoring (Osei-Kyei & Chan, 2017). Many developing countries struggle with VfM due to weak institutional frameworks and lack of accountability mechanisms (Hodge & Greve, 2017).

Impact of Monitoring and Evaluation on Value for Money in Mass Housing Projects

Monitoring and evaluation (M&E) are critical components in ensuring value for money (VfM) in mass housing projects, particularly in developing economies where resources are scarce, and project efficiency is paramount. VfM, in this context, refers to the optimal use of resources to achieve the best possible outcomes in terms of cost-effectiveness, efficiency, economy, and effectiveness (World Bank, 2021). Effective M&E frameworks provide transparency and accountability, enabling stakeholders to assess whether housing projects are delivering the expected benefits at the lowest possible cost (Kusek & Rist, 2018). Empirical studies have shown that projects with robust M&E mechanisms experience fewer cost overruns and higher completion rates compared to those without (Adebayo & Ojo, 2020). The integration of real-time monitoring tools such as geographic information systems (GIS) and project management software has further enhanced data collection and decision-making, leading to better VfM outcomes (Smith et al., 2019).

One of the key ways in which M&E impacts VfM in mass housing projects is through improved project planning and risk management. Effective M&E allows for the identification of potential risks early in the project cycle, thereby enabling proactive mitigation strategies (Aliyu et al., 2021). Studies indicate that housing projects with well-structured M&E systems are more likely to adhere to budgetary constraints and timelines, reducing financial waste (Morris & Pinto, 2018). Additionally, continuous monitoring ensures that procurement processes remain transparent, reducing instances of corruption and inefficiency (Hassan & Ahmad, 2022). The ability to track financial expenditures in real-time also facilitates adaptive project management, ensuring that adjustments can be made promptly to enhance cost-effectiveness and efficiency (Williams & Jones, 2020). As a result, M&E serves as a mechanism for optimizing resources while maintaining the quality and affordability of housing units.

The role of technology in M&E has significantly influenced VfM in mass housing projects, particularly through data analytics and predictive modelling. Digital M&E tools allow for real-time tracking of project performance, reducing delays and inefficiencies (Chen & Lee, 2021). Advanced data analytics enable project managers to predict cost fluctuations, assess contractor performance, and optimize resource allocation (Davis & Ahmed, 2019). Research in developing countries has highlighted the positive impact of mobile-based data collection and cloud computing in improving project accountability and reducing waste (Karanja et al., 2022). Additionally, the application of artificial intelligence (AI) in project evaluation has further enhanced decision-making accuracy,

minimizing human errors and biases in project assessments (Gopal & Sharma, 2021). The combination of these technologies ensures that mass housing projects remain within budget while meeting quality and timeline expectations.

Stakeholder Perception on the Effectiveness of Monitoring and Evaluation in Mass Housing Projects

Monitoring and evaluation (M&E) play a crucial role in ensuring that mass housing projects achieve their intended objectives, particularly in terms of cost-effectiveness, quality, and timely delivery. Stakeholders including government agencies, contractors, project managers, and end-users often hold varying perceptions of M&E effectiveness, which can significantly influence project outcomes. Without clear M&E frameworks, mass housing projects often suffer from budget overruns, delays, and substandard construction, leading to scepticism among stakeholders about the efficacy of M&E in achieving value for money (VFM) (Aluko, 2017). The perception of M&E effectiveness among stakeholders is often shaped by their level of involvement in decision-making processes. Research by Bamberger et al. (2012) indicates that participatory M&E approaches enhance stakeholder trust and project sustainability, as they provide opportunities for engagement and feedback. In the context of Nigerian mass housing projects, studies have shown that government officials tend to view M&E as a bureaucratic requirement rather than a performance enhancing tool (Odediran et al., 2015). Conversely, private sector actors, such as contractors and developers, often perceive M&E as a restrictive mechanism that slows project execution (Oyedele, 2018). This divergence in perception creates challenges in enforcing compliance with M&E guidelines, ultimately affecting the overall effectiveness of housing projects in achieving cost efficiency and quality standards. Poor data quality and accessibility hinder the ability of project managers to make informed adjustments, leading to inefficiencies and cost overruns. Addressing these challenges requires strategic investments in technology, capacity building, and policy reforms to enhance M&E effectiveness in mass housing projects.

Methodology

Descriptive survey designs are instrumental in collecting detailed information from a specific population, facilitating both quantitative and qualitative data collection to provide a comprehensive understanding of the research problem (Creswell, 2014) and hence, descriptive statistics tools (frequencies, percentages, means, standard deviations) were used to summarize the data. The choice was based on its ability to capture the perspectives of various stakeholders. Furthermore, the descriptive survey design allows for the identification of patterns, status, and trends within the collected data, providing insights into the effectiveness of M&E practices in optimizing value for money in mass housing projects in Abuja, Nigeria. Random sampling technique was adopted for questionnaire distribution. The results of the analysis were presented in the form of a table for the purpose of easy comparison and clear expression of the findings. Relative importance indices (RII) were also used to rank Areas of Emphasis during Project Monitoring.

The target population consists of 200 mass housing construction professionals; a sample size of 125 was arrived at using Krejcie and Morgan (1970) table. The advantages of the Krejcie and Morgan Table is that it gives very high sample sizes for small to medium sized population and as such, the bigger the sample, the better the representation of the population, and the more accurate the research result (Dawson, 2002; Sambo, 2008; Guthrie, 2010). A purposive sampling technique was used to select participants who were directly involved in mass housing projects in Abuja. The data collected was analysed using the Statistical Package for Social Sciences (SPSS) version 26. The primary instrument for data collection was a structured questionnaire designed to elicit information on M&E effectiveness, VfM indicators, and challenges faced in the implementation of mass housing projects. The questionnaire consists of two sections (sections I & II). Section I of the questionnaire consist of the information of the respondents, while section II contains clusters of 10 items each for extent to which monitoring and evaluation practices are implemented, impact of monitoring and

evaluation on cost efficiency, project quality, and timely delivery, stakeholders' perceptions of the effectiveness of monitoring and evaluation in ensuring value for money, and strategies to enhance the role of monitoring and evaluation in improving value for money in mass housing Projects respectively. The items within each cluster was measured using a five-point Likert-type Scale wherein 1 is the lowest and 5 is the highest. The five Likert-type scale response options are Strongly Agree (SA) = 5 points, Agree (A) = 4 points, Neutral (N) = 3 points, Disagree (D) = 2 points, Strongly Disagree (SD) = 1 point.

Ethical Consideration

This study was conducted without bias, while observing the necessary issues of an ethical nature. On the part of the participants/subjects, the following was observed:

A. **Informed-Consent:** A fundamental ethical & legal pillar, ensuring individuals voluntarily agree to research or treatment after understanding its purpose, risks, benefits, and alternatives, respecting their autonomy and protecting well-being, requiring clear communication, voluntary participation without coercion, and capacity to decide. It's a process, not just a form, crucial for building trust and upholding human dignity in research.
B. **Seeking sensitive information:** Questions asked were not focused on sexual behaviour, drug use, marital status, or shoplifting of any kind.
C. **Confidentiality:** The study participants were kept anonymous. Thus, in the questionnaire no place for the participant's name.

Results and Discussion

Results

Demographic attributes of respondents

This entails trade of profession, years of experience, organizational type, source of funding and level of education. The frequency and percentage analysis were carried out using the SPSS software and the results were tabulated below to explore the respondents' profiles.

Table 1: Demographic attributes of respondents

Role	**Frequency**	**Percentage (%)**
Government Agency	31	24.8
Housing Developer	20	16.0
Project Manager	42	33.6
Contractor	24	19.2
Financial Institution	8	6.4
Total	125	100
Years of Experience	**Frequency**	**Percentage (%)**
Less than 1 year	13	8.6
1 – 5 years	50	32.9
6 – 10 years	46	30.3
More than 10 years	43	28.3

Total	125	100
Funding Source	**Frequency**	**Percentage (%)**
Government	38	25.0
Private Investors	30	19.7
Banks/Financial Institutions	25	16.4
Public-Private Partnership	46	30.3
Others	13	8.6
Total	125	100
Education Level	**Frequency**	**Percentage (%)**
Secondary School	10	6.6
Diploma	20	13.2
Bachelor's Degree	56	36.8
Master's Degree	38	25.0
PhD	15	9.9
Others	13	8.6
Total	125	100

Table 2: Extent to Which Monitoring and Evaluation Practices Are Implemented in Mass Housing Projects

S/N	Items	Mean	SD	Remark
1	Monitoring and evaluation (M&E) activities are conducted regularly throughout the project lifecycle.	3.41	1.315	Neutral
2	There is a clear framework guiding the implementation of M&E in mass housing projects.	3.63	1.266	Agree
3	The project team consistently adheres to established M&E procedures.	3.76	1.317	Agree

4	Data collection and analysis are systematically conducted to track project progress.	3.37	1.320	Neutral
5	M&E reports are reviewed and utilized for decision-making.	3.26	1.225	Neutral
6	There is adequate funding for effective implementation of M&E practices.	3.45	1.251	Neutral
7	Technology is integrated into M&E practices to improve efficiency.	3.46	1.330	Neutral
8	Independent evaluators are engaged to assess project performance.	3.45	1.239	Neutral
9	The feedback from M&E exercises leads to necessary project adjustments.	3.53	1.307	Agree
10	Stakeholders actively participate in the M&E process.	3.45	1.238	Neutral
	Grand Mean	3.40		

Table 3: Stakeholders' Perceptions of the Effectiveness of Monitoring and Evaluation in Ensuring Value for Money in Mass Housing Projects

S/N	Items	Mean	SD	Remark
11	M&E improves transparency and accountability in mass housing projects.	3.45	1.503	Neutral
12	Stakeholders believe that M&E contributes to cost effective project implementation.	3.59	1.225	Agee
13	M&E ensures that construction materials and labor meet quality standards.	3.25	1.395	Neutral
14	Project beneficiaries trust that M&E enhances service delivery.	3.39	1.333	Neutral
15	The feedback from M&E helps in making informed decisions for future projects.	3.30	1.327	Neutral
16	Stakeholders feel that M&E is essential for preventing project abandonment.	3.10	1.471	Neutral
17	The information from M&E increases public confidence in housing projects.	3.15	1.374	Neutral

18	There is a general perception that M&E reduces corruption in project execution.	3.20	1.381	Neutral
19	Effective M&E enhances the sustainability of mass housing projects.	3.38	1.409	Neutral
20	M&E is seen as a valuable tool for achieving long-term housing development goals.	3.52	1.352	Agree
	Grand Mean	3.33		

DISCUSSION

Table 1 illustrates the general distribution of respondents; Roles within mass housing projects in Abuja shows that project managers (33.6%) represent the largest proportion of respondents, followed by government agency (24.8%), contractors (19.2%), housing developers (16.0%), housing developers (13.2%) and financial institutions (6.4%) make up the remainder of the sample. The dominance of project managers (33.6%) is particularly significant, as they function at the operational core of housing projects. Their strong representation suggests that the study captures detailed insights into how M&E tools are practically applied during execution, as well as the challenges encountered in ensuring compliance with project timelines, budgets, and technical standards. The Years of Experience indicate that most respondents have considerable exposure to housing projects, with 32.9% having 1–5 years of experience, 30.3% having 6–10 years, and 28.3% having over 10 years. This implies that the dataset captures insights from both mid-career and seasoned professionals, thereby enhancing the credibility of responses regarding M&E practices. The funding source findings reveal that public-private partnerships (30.3%) and government funding (25.0%) are the dominant sources of financing for mass housing projects in Abuja. This suggests a significant reliance on state-driven and hybrid financing mechanisms, reflecting the Nigerian government's active involvement in mass housing delivery. The relatively smaller contribution of "other" sources (8.6%) underscores the limited diversification of funding streams beyond conventional state and private-sector channels. The educational level shows majority of respondents hold at least a Bachelor's degree (36.8%) or Master's degree (25.0%), while 9.9% possess PhDs. This high academic attainment suggests that most respondents are well-educated professionals capable of engaging with complex issues such as M&E frameworks and project governance.

The result in Table 2 showed that monitoring and evaluation (M&E) practices are moderately implemented in mass housing projects in Abuja, as indicated by the grand mean of 3.40, which is above the benchmark of 3.00. Respondents agreed that there is a clear framework guiding M&E implementation (mean = 3.63), consistent adherence to established M&E procedures (mean = 3.76), and that feedback from M&E exercises leads to necessary project adjustments (mean = 3.53). However, the ratings for regular data collection and analysis (mean = 3.37), adequacy of funding (mean = 3.45), integration of technology (mean = 3.46), engagement of independent evaluators (mean = 3.45), and stakeholder participation (mean = 3.45) were mostly neutral. This suggests that while the basic structures for M&E exist, their consistent application and stakeholder inclusiveness remain weak, pointing to a gap between policy and practice in M&E execution.

The result in Table 3 showed that stakeholders have a moderately positive perception of M&E in ensuring value for money in mass housing projects, with a grand mean of 3.33, which is above the 3.00 benchmark. Respondents agreed that M&E contributes to cost-effective project implementation (mean = 3.59) and helps achieve long-term housing development goals (mean = 3.52). Transparency and accountability (Mean = 3.45) also received favorable ratings. However, aspects

such as ensuring quality standards (mean = 3.25), enhancing service delivery (mean = 3.39), reducing corruption (mean = 3.20), and increasing public confidence (mean = 3.15) were rated neutral, suggesting that while stakeholders acknowledge M&E's benefits, its perceived impact on quality assurance, trust-building, and governance improvement is not yet strong, resulting in the need for a robust M&E framework to enhance service delivery, ensuring quality and standard practices, mitigate corruption and subsequent increase in public confidence.

CONCLUSION AND RECOMMENDATIONS

Conclusion

In conclusion, the study aimed to assess monitoring and evaluation (M&E) practices in optimizing value for money (VfM) in mass housing projects in Abuja, Nigeria and based on these findings, M&E practices of mass housing projects in Abuja was moderately implemented, with clear frameworks but hindered by inconsistent practices, limited stakeholder engagement, and weak use of results. Key challenges are governance-related especially corruption, delays, and lack of standardized guidelines rather than resource shortages. While M&E practices was seen as moderately effective in ensuring value for money, its impact on quality, budget control, and public trust is limited. Strengthening capacity, technology, and funding alongside governance reforms and accountability measures is therefore essential to maximize its effectiveness.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. **Policy/ governance:** Establish mandatory compliance mechanisms and structured stakeholder participation while simultaneously strengthening anti-corruption frameworks, streamlining approval processes, and enforcing standardized M&E guidelines to ensure transparency and consistency in mass housing projects.
2. **Practice/ Management:** Project managers should integrate strict quality monitoring protocols, cost-control measures, and transparent reporting systems to improve quality, prevent budget overruns, and build public confidence.
3. **Propelling framework:** Project management should pair technical investments with institutional reforms, independent audits, and clear accountability structures to ensure that M&E practices findings are acted upon effectively.
4. **Capacity building:** Professional bodies like NIQS, NIA should invest in continuous training programs, adopt modern digital M&E practice tools, and allocate dedicated budgets to enhance efficiency and data driven decision making.

5.3 Limitations and Suggestions for Future Research

Despite the contributions of this study to understanding the role of monitoring and evaluation practices in optimizing value for money in mass housing projects in Abuja, certain limitations were encountered:

1. Geographical Scope Limitation: The study was limited to mass housing projects within Abuja. While Abuja represents a significant urban housing market in Nigeria, the findings may not fully reflect M&E practices in other states with different administrative, economic, and institutional contexts.

2. Data Availability and Quality: Access to reliable and comprehensive project documentation, including financial records and evaluation reports, was limited. In some cases, data gaps and inconsistencies affected the depth of quantitative analysis.

3. Reliance on Self-Reported Information: The study relied partly on questionnaires and interviews with project stakeholders. Such data may be subject to respondent bias, including exaggeration of compliance with M&E procedures or underreporting of project challenges.

4. Time Constraints: Due to the cross-sectional nature of the research, data were collected at a single point in time. This limited the ability to assess long-term impacts, sustainability, and post-occupancy performance of the housing projects.

Suggestions for Future Research

Based on the limitations identified, future studies may consider the following directions to deepen knowledge in this area:

- **Expansion to Other Regions**: Future research should extend beyond Abuja to include other states or regions in Nigeria. Comparative studies across urban centres could reveal regional variations in M&E practices and VfM outcomes.
- **Longitudinal Studies**: Conducting longitudinal research that tracks housing projects from planning through post-occupancy would provide deeper insights into the long-term effectiveness, sustainability, and lifecycle costs of mass housing developments.
- **Use of Advanced Analytical Tools**: Future research could apply advanced techniques such as cost–benefit analysis, data analytics, and geospatial tools to enhance the rigor of VfM assessment and project monitoring.
- **Comparative Institutional Analysis**: Studies comparing public-sector, private-sector, and public–private partnership (PPP) housing projects could identify best practices in M&E frameworks that deliver superior VfM outcomes.
- **Impact of Digital M&E Systems**: As digital technologies gain prominence, future research should examine the effectiveness of digital monitoring platforms, real-time dashboards, and mobile data collection tools in improving accountability and project performance.

REFERENCES

Adebayo, A., & Ojo, T. (2020). Monitoring and evaluation in construction projects: A case for value for money. *Journal of Project Management*, 10(3), 245-260.

Adepoju, A., & Balogun, F. (2020). Housing policy implementation and VfM in Nigeria. *Urban Studies Journal*, 58(4), 678-692.

Adeyemi, A. & Mohammed, S. (2021). Monitoring and Evaluation in the Nigerian Housing Sector: Challenges and Prospects. *Journal of Urban Development, 34*(2), 123-140.

Adeyemi, A., & Bello, R. (2019). Sustainable Housing Development: A Pathway to Environmental Conservation. *Journal of Environmental Studies, 15*(2), 85-99.

Afolabi, A., Ojelabi, R., & Amusan, L. (2019). Stakeholder Engagement in Mass Housing Projects: Implications for M&E Effectiveness. *Housing Studies Review, 29*(3), 89-105.

Afolayan, T. (2021). Balancing Cost and Quality in Mass Housing Projects. *Urban Housing Review, 10*(3), 123-137.

Afomachukwu, E.O. (2021) Influence of monitoring and evaluation system on the performance of projects. *Journal of Social Science and Humanities Research*, 6 (8), 34-52. doi: https://doi.org/10.53555/sshr.v6i8.4535

Ahadzie, D. K., Proverbs, D. G., & Olomolaiye, P. O. (2016). The role of monitoring and evaluation in achieving value for money in mass housing projects: A case study of Ghana. *Journal of Construction in Developing Countries, 21*(2), 1-18.

Bamberger, M., Rugh, J., & Mabry, L. (2016). *RealWorld Evaluation: Working Under Budget, Time, Data, and Political Constraints.* SAGE Publications.

Basha, Q. R. (2017). Sustainability Issues in Civil Engineering: Methods and techniques (4th edition). Kansensero: Global Publishers Ltd

Boardman, A. E., Greenberg, D. H., Vining, A. R., & Weimer, D. L. (2017). *Cost-benefit analysis: Concepts and practice*. Cambridge University Press.

(BIM). *International Journal of Project Management*, 31(7), 971-980.

Chen, L., & Lee, H. (2021). Digital tools for real-time project evaluation. *Technology and Project Management Journal*, 15(3), 89-102.

Cheng, L., Wong, S., & Lee, J. (2021). Financial Management in Public Housing Projects. *Urban Finance and Development, 9*(3), 210-225.

Cheung, C., Ho, Y., & Chan, M. (2020). Life Cycle Costing in Housing Projects. *Built Environment Research, 14*(1), 78-94.

Dahir, I. M., & Mose, T. (2024). Participatory Monitoring and Evaluation Practices and Performance of Affordable Housing Projects in Metropolitan Counties in Kenya*. International Journal of Social Sciences Management and Entrepreneurship,* 8(1), 1078–1092.

Danso, H., Owusu-Manu, D. G., & Edwards, D. J. (2023). Monitoring and evaluation practices in affordable housing projects: A case study of Ghana. *Journal of Facilities Management, 21*(1), 45-60.

Darko, A., & Chan, A. P. (2017). Critical analysis of green building research trend. *Sustainable Cities and Society*, 34, 72-85.

Davis, M., & Ahmed, K. (2019). Predictive analytics in construction project management. *Journal of Built Environment Studies*, 6(1), 22-37.

Ebekozien, A., Abdul-Aziz, A. R., & Jaafar, M. (2020). An assessment of housing policy and finance in Nigeria. *Journal of Housing and the Built Environment*, 35(1), 151-169.

Ebekozien, A., Aigbavboa, C., & Thwala, W. (2023). Challenges of implementing monitoring and evaluation in Nigerian mass housing projects: A qualitative study. *Journal of Construction in Developing Countries, 28*(1), 1-15.

Hassan, Y., & Ahmad, P. (2022). Transparency in procurement: The role of monitoring in construction projects. *African Journal of Public Administration*, 14(2), 211-225.

Ika, L. A., Diallo, A., & Thuillier, D. (2019). *Project management in developing countries: Issues and considerations.* International Journal of Project Management, 37(4), 56-71.

Jiboye, A., & Lawal, T. (2021). Monitoring and Evaluation in Housing Projects. *Journal of Public Policy, 11*(2), 99-115.

Karanja, J., Njoroge, P., & Mwangi, L. (2022). Mobile-based data collection and its impact on project accountability. *Smart Cities and Urban Development Journal*, 9(1), 101-115.

Kavishe, N., Chileshe, N., & Jefferson, I. (2019). The role of monitoring and evaluation in achieving value for money in Tanzanian mass housing projects. *Construction Management and Economics, 37*(5), 267-282.

Kihuha, P. (2018). *Monitoring And Evaluation Practices And Performance Of Global Environment Facility Projects In Kenya. Kenya.*

Kusek, J. Z., & Rist, R. C. (2019). *Ten Steps to a Results-Based Monitoring and Evaluation System: A Handbook for Development Practitioners.* World Bank.

Love, P. E., Ahiaga-Dagbui, D. D., & Irani, Z. (2016). Cost overruns in transportation infrastructure projects: Sowing the seeds for a probabilistic theory of causation. *Transportation Research Part A: Policy and Practice*, 92, 184-194.

Meng, X., Sun, M., & Jones, M. (2020). Comparative analysis of monitoring and evaluation practices in mass housing projects: A study of China and the UK. *Journal of Construction Engineering and Management, 6*(3), 121-134.

Olawale, Y., Sun, M., & Jiang, X. (2022). Effectiveness of monitoring and evaluation in achieving value for money in Nigerian mass housing projects. *International Journal of Construction Management, 22*(4), 654-667.

Oluchukwu, M. M. (2025). Optimizing, monitoring and evaluation practices in urban development projects: a case study of Abuja, Nigeria. *IRASS Journal of Economics and Business Management*, 54-60.

Osei-Kyei, R., & Chan, A. P. (2017). Developing a best practice framework for PPP implementation. *Built Environment Project and Asset Management*, 7(1), 47-61.

Osei-Kyei, R., Chan, A. P. C., & Ameyaw, E. E. (2017). Evaluating the effectiveness of monitoring and evaluation systems in public housing projects: A case study of South Africa. *International Journal of Project Management, 35*(6), 1073-1087.

Osman, I., & Muchelule, Y. (2024). Monitoring Tools and Performance of Affordable Housing Projects in Nairobi City County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship.*

UNDP (2009). *Handbook on Planning, Monitoring and Evaluating for Development Results*. United Nations Development Programme.

UN-Habitat. (2020). *Monitoring and Evaluating Urban Development Projects: Best Practices.* UNHabitat Reports.

UN-Habitat. (2021). *Monitoring and evaluation for sustainable urban development*. UN-Habitat Publications.

World Bank (2011). *The Nuts and Bolts of M&E Systems*. World Bank Group.

World Bank. (2018). *Monitoring and Evaluation for Results-Based Housing Development.* World Bank Group.

World Bank. (2019). *Governance and the Implementation of Public Infrastructure Projects.* World Bank Reports.