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Impact Of Monitoring And Evaluation Practices On Project Performance With Moderating Role Of Stakeholder Engagement

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Abstract: *Monitoring and Evaluation (M&E) practices play an important role in improving the performance of development and donor-funded projects. These practices help project teams monitor progress, generate quality data, identify problems early, and inform evidence-based decision-making. However, development and donor-funded projects in Pakistan may continue to face challenges related to project delays, data quality, corrective actions, learning, and the effective use of monitoring information. These challenges may be influenced not only by the quality of M&E practices but also by the extent to which relevant stakeholders participate in and use M&E processes. This study examines how M&E practices affect project performance and investigates the moderating role of stakeholder engagement in this relationship. Grounded in Results-Based Management (RBM), the study conceptualizes M&E practices through the planning process, technical expertise, stakeholder involvement, and management participation, while project performance is assessed through indicators including time, cost, scope, quality, user acceptance, organizational readiness, donor reputation, project visibility, and conformity with the approved project plan. The study proposes a quantitative, cross-sectional survey design targeting project managers, project coordinators, data managers, and M&E professionals working on development and donor-funded projects in Pakistan. Data will be collected through a structured questionnaire and analyzed using descriptive statistics, reliability and validity assessment, correlation, regression, and moderation analysis. The study seeks to provide empirical evidence on the relationship between M&E practices and project performance and to clarify whether stakeholder engagement strengthens this relationship. The findings are intended to contribute to M&E and project management literature and provide practical guidance for project managers, donors, and policymakers in strengthening project performance and accountability.*

Introduction

Monitoring and Evaluation (M&E) practices play an important role in improving the performance of development and donor-funded projects (Nyonje et al., 2012; Olala & Nyonje, 2020). These practices support project teams in monitoring progress, generating quality data, identifying problems at an early stage, and informing evidence-based decision-making. In development projects, where resources are

often constrained and interventions involve multiple stakeholders and implementing arrangements, the availability and effective use of reliable performance information are particularly important.

Monitoring generally involves the systematic and continuous or periodic collection and analysis of information concerning project activities, inputs, outputs, and progress, whereas evaluation involves a systematic assessment of the relevance, effectiveness, efficiency, impact, sustainability, and other dimensions of an intervention (OECD, 2019). Together, monitoring and evaluation provide project managers and stakeholders with information needed to assess whether projects are progressing toward their intended objectives and whether resources and activities are contributing to expected results. Therefore, M&E should not be viewed solely as an administrative or reporting requirement but as an important management function that supports accountability, learning, decision-making, and performance improvement.

The importance of M&E has increased with the growing emphasis on results-based management in development projects. Donors and implementing organizations increasingly require projects to demonstrate measurable results and provide credible evidence of progress and achievements. Consequently, greater attention has been given to logical frameworks, performance indicators, baseline assessments, routine monitoring, data quality assurance, progress reporting, evaluations, and learning mechanisms. Effective implementation of these practices can enable project managers to compare actual performance against planned targets, identify deviations, and take corrective measures in a timely manner (Kusek & Rist, 2004).

The relationship between M&E and project performance has also received increasing attention in the development-management literature. M&E systems can contribute to project performance by providing timely information on implementation progress, identifying emerging challenges, supporting resource allocation, and facilitating evidence-based adjustments to project strategies (Nyonje et al., 2012; Olala & Nyonje, 2020). However, the existence of an M&E system alone does not necessarily guarantee improved performance. The quality of the system, the capacity of personnel responsible for M&E, the reliability of collected data, stakeholder participation, and the extent to which M&E findings are used in management decisions are equally important.

The issue is particularly relevant to development and donor-funded projects because such projects are commonly implemented against predefined objectives, outputs, outcomes, indicators, budgets, and implementation schedules. Project managers therefore require reliable information to determine whether implementation remains aligned with approved plans. When monitoring information is timely and accurate, deviations can be identified at an early stage and corrective action can be initiated before problems substantially affect project results. Conversely, weak data collection, delayed reporting, inadequate technical capacity, poorly defined indicators, and limited use of M&E findings can reduce the contribution of M&E to project performance.

In Pakistan, development and donor-funded projects operate within diverse geographical, institutional, and socio-economic environments. Such projects frequently involve government institutions, development partners, international and national organizations, consultants, communities, and other stakeholders. These complex implementation arrangements increase the need for effective mechanisms for data collection, verification, reporting, coordination, and performance assessment. Challenges associated with institutional capacity, data quality, coordination, and the utilization of M&E information may influence the effectiveness of project implementation.

Recent empirical evidence from Pakistan further demonstrates the relevance of M&E to project performance. Jalil (2024) found that M&E technical capacity and stakeholder participation in M&E had

significant positive effects on project performance. This evidence suggests that the effectiveness of M&E depends not only on formal M&E structures but also on the capacity of project personnel and the involvement of relevant stakeholders in the M&E process.

Despite the recognized importance of M&E, further empirical investigation is needed into how M&E practices influence the performance of development and donor-funded projects in Pakistan. Much of the existing literature has examined individual dimensions of M&E or has focused on specific sectors and geographical contexts. Further examination of M&E as an integrated project-management practice can better explain how monitoring and evaluation support project performance in Pakistan's development context.

Therefore, this study examines how M&E practices affect the performance of development and donor-funded projects in Pakistan. The study seeks to provide empirical evidence on how M&E practices contribute to project performance and to generate practical insights for project managers, implementing organizations, government institutions, and development partners seeking to strengthen project delivery, accountability, learning, and results.

Background of the Study

Monitoring and Evaluation has evolved from being primarily associated with reporting and accountability to becoming an important component of contemporary project and development management. Monitoring provides a mechanism for systematically tracking project implementation, while evaluation assesses the extent to which an intervention has achieved its intended objectives and generated meaningful results. When appropriately designed and implemented, M&E can therefore provide a continuous flow of information that supports project planning, implementation, control, learning, and decision-making (Kusek & Rist, 2004).

Monitoring enables project managers to track activities, inputs, outputs, expenditures, timelines, and performance indicators against established plans and targets. This process allows deviations to be identified and communicated to relevant stakeholders. Evaluation, on the other hand, provides a more structured assessment of project relevance, effectiveness, efficiency, impact, and sustainability. The OECD (2019) identifies relevance, coherence, effectiveness, efficiency, impact, and sustainability as key criteria for evaluating development interventions. These criteria provide a comprehensive basis for examining whether interventions address relevant needs, achieve intended results, use resources efficiently, generate meaningful effects, and produce benefits that can be sustained over time.

The increasing emphasis on results-based management has further strengthened the importance of M&E in development projects. Results-based approaches require organizations to establish measurable objectives and indicators and to collect evidence demonstrating progress toward those objectives. Kusek and Rist (2004) argue that results-based M&E systems can provide governments and development organizations with information required to assess whether interventions are achieving desired results and to use performance information to improve management.

The contribution of M&E to project performance can occur through several interconnected mechanisms. First, regular monitoring enables project teams to identify implementation deviations at an early stage. Second, reliable M&E data provide managers with evidence for assessing progress and allocating resources. Third, evaluation findings can identify factors contributing to success or failure and generate lessons for future implementation. Finally, the use of M&E findings can facilitate adaptive management by enabling project teams to revise strategies and activities in response to emerging evidence (World Bank, 2004).

Data quality represents another critical element of an effective M&E system. Decisions based on

inaccurate, incomplete, inconsistent, or delayed information may result in inappropriate management responses. Consequently, effective M&E requires appropriate systems for data collection, verification, quality assurance, analysis, documentation, and reporting. Technical capacity among M&E personnel is therefore important because project teams must possess the skills necessary to design indicators, collect and manage data, interpret findings, and communicate evidence to decision-makers.

Stakeholder participation is also an important dimension of M&E. Development projects normally involve multiple stakeholders with different responsibilities, interests, information needs, and expectations. Their involvement can improve the relevance and credibility of M&E processes while strengthening ownership and accountability. Stakeholders can contribute to defining indicators, validating information, interpreting findings, identifying implementation challenges, and developing appropriate responses. Evidence from Pakistan supports this perspective, as Jalil (2024) reported a significant positive relationship between M&E stakeholder participation and project performance.

The usefulness of M&E ultimately depends on whether the information generated is incorporated into project-management decisions. Producing monitoring reports or conducting evaluations without using their findings can substantially limit the value of M&E. An effective M&E system should therefore facilitate a continuous cycle in which information is collected, analyzed, communicated, discussed, and used to improve implementation. This transforms M&E from a compliance-oriented function into a management and learning mechanism.

Project performance itself is a multidimensional concept. Depending on the nature and objectives of a project, performance may involve the achievement of planned outputs and outcomes, adherence to schedules and budgets, quality of deliverables, achievement of project objectives, stakeholder satisfaction, and sustainability of results. Consequently, assessing the influence of M&E on project performance requires consideration of how M&E practices support different aspects of project implementation and results.

The Pakistani development context makes this relationship particularly important. Development and donor-funded projects are implemented through a range of institutional arrangements involving government agencies, international development partners, non-governmental organizations, private-sector organizations, consultants, and local communities. Differences in organizational capacity, geographical coverage, implementation structures, data systems, and stakeholder requirements can create challenges for effective M&E implementation. Strengthening M&E practices can therefore contribute to improved project oversight, evidence-based management, accountability, and ultimately project performance.

Although international literature provides substantial evidence concerning the role of M&E in development management, empirical research examining the relationship between M&E practices and project performance in Pakistan remains comparatively limited. The study by Jalil (2024) provides recent empirical evidence from Pakistan by demonstrating the importance of M&E technical capacity and stakeholder participation for project performance. However, further research is required to examine M&E practices more comprehensively across development and donor-funded projects operating in the Pakistani context.

Against this background, the present study investigates the impact of M&E practices on project performance in development and donor-funded projects in Pakistan. By examining this relationship empirically, the study aims to contribute to the existing literature and provide practical evidence that can assist project managers, development partners, implementing organizations, and government institutions in strengthening M&E systems and improving project outcomes.

Problem Statement

Despite increased emphasis on Monitoring and Evaluation practices, many development and donor-funded projects in Pakistan continue to face performance challenges (Olala & Nyonje, 2020) (Nyonje et al., 2012). Common issues include delays in approvals from clients and government authorities, access issues in security-sensitive areas like NMD's, some areas of KPK, Punjab and Baluchistan, poor data quality or fake entries, weak feedback and communication mechanisms on issues and quality, No refresher training on issues or no improvement, and limited use of monitoring findings in decision-making. While M&E practices emphasize data collection, reporting, and accountability, they often underestimate the complexity created by multiple stakeholders with different interests and levels of influence. Inadequate stakeholder engagement, weak communication strategies, and limited stakeholder ownership of M&E processes can reduce the effectiveness of monitoring systems (Cousins & Whitmore, 1998). As a result, even technically sound M&E practices may fail to improve project performance (Olala & Nyonje, 2020) (Nyonje et al., 2012). The problem is therefore not necessarily the absence of M&E structures, but the possibility that monitoring information is collected without being sufficiently interpreted, communicated, owned, or used by those who influence implementation. Where project stakeholders have different interests, responsibilities, information needs, and levels of authority, technically sound M&E procedures may produce limited performance benefits if findings do not translate into coordinated action. The practical issue addressed by this study is consequently whether stronger M&E practices are associated with better project performance and whether stakeholder engagement strengthens that association.

Research Gap

Although extensive research exists on Monitoring and Evaluation (M&E) practices and project performance (Olala & Nyonje, 2020; Nyonje et al., 2012), relatively few studies examine stakeholder engagement as a moderating factor in this relationship. Most prior studies treat stakeholder engagement as an independent variable (Cousins & Whitmore, 1998) or focus primarily on the technical aspects of M&E systems. Consequently, there remains limited understanding of whether and how stakeholder engagement changes the strength of the relationship between M&E practices and project performance.

The existing literature has largely emphasized the importance of M&E planning, technical capacity, data collection, monitoring systems, reporting, and evaluation in improving project performance (Nyonje et al., 2012; Olala & Nyonje, 2020). While these dimensions are important, effective M&E also depends on the participation, communication, feedback, and collaboration of stakeholders who generate, validate, receive, and use M&E information. Participatory approaches to monitoring and evaluation emphasize that stakeholder involvement can improve the relevance, credibility, ownership, and utilization of evaluation findings (Estrella & Gaventa, 1998). However, stakeholder engagement has generally received less attention as a contextual factor that may strengthen or weaken the effectiveness of M&E practices.

There is also limited empirical evidence from development and donor-funded projects in contexts such as Pakistan, where stakeholder dynamics can influence data quality, reporting, feedback, accountability, and the utilization of M&E findings. Recent evidence from Pakistan indicates that M&E technical capacity and stakeholder participation are positively associated with project performance (Jalil, 2024), demonstrating the relevance of stakeholder-related factors within the Pakistani project environment. Nevertheless, this evidence does not fully address whether stakeholder engagement moderates the relationship between M&E practices and project performance.

Furthermore, research examining project stakeholder engagement has established its importance for project performance, but relatively limited attention has been given to its interaction with M&E practices. For example, Nguyen et al. (2021) demonstrate the importance of stakeholder engagement for project performance across different project contexts. However, the role of stakeholder engagement as a moderator of the M&E–project performance relationship remains insufficiently examined, particularly within development and donor-funded projects in Pakistan.

Therefore, a significant empirical gap remains concerning the moderating role of stakeholder engagement in the relationship between M&E practices and project performance. This study addresses this gap by empirically examining whether stakeholder engagement strengthens the impact of M&E practices on project performance in development and donor-funded projects in Pakistan. By positioning stakeholder engagement as a moderator rather than solely as an independent predictor, the study extends the existing M&E literature and provides a more context-sensitive understanding of how M&E practices can contribute to improved project performance.

Research Objectives

The study aims to examine the impact of Monitoring and Evaluation (M&E) practices on project performance, with particular emphasis on the moderating role of stakeholder engagement in development and donor-funded projects in Pakistan. Specifically, the study seeks to achieve the following objectives:

1. To examine the impact of Monitoring and Evaluation practices on project performance.
2. To examine the direct effect of stakeholder engagement on project performance.
3. To assess the moderating role of stakeholder engagement in the relationship between Monitoring and Evaluation practices and project performance.

Research Questions

RQ1: What is the effect of Monitoring and Evaluation practices on project performance?

RQ2: What is the relationship between stakeholder engagement and project performance?

RQ3: Does stakeholder engagement moderate the relationship between Monitoring and Evaluation practices and project performance?

Scope and Significance of the Study

Scope of the Study

This study focuses on development and donor-funded projects in Pakistan and examines the relationship between Monitoring and Evaluation (M&E) practices and project performance. M&E practices are considered in terms of the processes and mechanisms used to monitor project implementation, assess progress, generate and utilize reliable information, provide feedback, support learning, and inform decision-making. Project performance is assessed in relation to key project outcomes, including adherence to time, cost, scope, quality, product acceptance, and impact on the intended beneficiaries or end users. The study further examines stakeholder engagement as a moderating variable to determine whether the level of stakeholder engagement influences the strength of the relationship between M&E practices and project performance.

Significance of the Study

This study contributes to the M&E and project management literature by examining stakeholder engagement as a moderating variable in the relationship between M&E practices and project performance. While previous research has established the importance of M&E practices for project performance and has examined stakeholder engagement as an important factor in project outcomes, limited empirical attention has been given to how stakeholder engagement may influence the

relationship between M&E practices and project performance, particularly in the context of development and donor-funded projects in Pakistan. The findings provide practical relevance for project managers, M&E professionals, implementing organizations, donors, and other project stakeholders. By identifying the relationship between M&E practices, stakeholder engagement, and project performance, the study can inform the design and implementation of M&E systems that place greater emphasis on stakeholder participation, communication, feedback, data quality, learning, and the utilization of M&E findings. The study also provides context-specific evidence that may support more effective project management, accountability, evidence-based decision-making, and performance improvement within development and donor-funded projects in Pakistan.

Literature Review

Theory

This study is grounded in Results-Based Management (RBM), which emphasizes the systematic linkage between inputs, activities, outputs, outcomes, and impact. RBM places performance information at the Centre of project management by using monitoring, evaluation, learning, and feedback to assess progress and support evidence-based decision-making (Vähämäki & Verger, 2019).

The RBM perspective is relevant to this study because effective Monitoring and Evaluation (M&E) practices provide the information required to track implementation, identify deviations, assess results, and support corrective action. The study therefore conceptualizes M&E practices as a mechanism through which project teams generate and use performance information to improve project performance. This is consistent with contemporary results-based approaches that emphasize the quality, use, and utilization of performance information rather than reporting alone (OECD, 2023).

The study further extends the RBM perspective by positioning stakeholder engagement as a moderating factor. Stakeholder participation, communication, feedback, and ownership can influence whether M&E information is understood, accepted, and translated into management action. Thus, the study proposes that the effectiveness of M&E practices in improving project performance may vary according to the level of stakeholder engagement.2.2 Concepts and Definitions

Monitoring and Evaluation (M&E) Practices (Independent Variable)

Monitoring and Evaluation (M&E) practices help project managers track project progress and assess whether project objectives are being achieved (Olala & Nyonje, 2020) (Nyonje et al., 2012). Monitoring focuses on regular data collection and progress tracking, while evaluation examines project results and outcomes. Previous studies show that effective M&E practices support better decision-making, early problem identification, and accountability. These practices help projects stay on track and improve overall performance (World Bank, 2004).

Project Performance (Dependent Variable)

Project performance refers to how well a project meets its planned objectives (Nyonje et al., 2012). Traditionally, performance is measured through time, cost, and quality. In development and donor-funded projects, performance also includes stakeholder satisfaction, learning, and sustainability. Research shows that projects with strong monitoring and evaluation systems are more likely to achieve better performance outcomes (Olala & Nyonje, 2020).

Stakeholder Engagement (Moderating Variable)

Stakeholder engagement refers to the involvement of donors, government agencies, project staff, partners, and beneficiaries in project activities (Estrella & Gaventa, 1998). Engaged stakeholders support accurate data collection, provide useful feedback, and help in using monitoring results. Studies indicate that stakeholder engagement improves the effectiveness of project management practices and

contributes to better project performance.

Monitoring and Evaluation Practices in Development Projects

Monitoring and evaluation practices comprise a set of interrelated managerial and technical activities through which project teams generate and use information about implementation and results. These include planning the M&E function, allocating resources, defining indicators, developing data-collection tools, training personnel, collecting and cleaning data, conducting quality assurance, analyzing information, reporting findings, obtaining feedback, and using lessons to improve implementation. The value of these activities depends not only on whether they are performed but also on whether they are sufficiently integrated into routine project management. A monitoring system that produces information without a clear pathway to management action may have limited influence on performance. Conversely, when evidence is timely, credible, and connected to decision-making, M&E can support early identification of deviations and facilitate corrective action. Existing empirical work in development projects has generally reported positive associations between M&E practices and project success or performance, including evidence on planning, technical capacity, budgeting, and stakeholder-related participation (Workneh & Aga, 2022; Jalil, 2024).

Project Performance

Project performance is multidimensional. Traditional project management perspectives emphasize the extent to which a project is delivered within agreed time, cost, scope, and quality requirements. Development and donor-funded projects, however, are also judged by the usefulness and acceptance of outputs, contribution to organizational objectives, accountability to donors, and the extent to which planned results are sustained. The performance indicators used in this study therefore extend beyond a single completion measure and reflect several dimensions already represented in the research instrument. This approach is consistent with the broader development-evaluation perspective in which performance information is used to assess effectiveness, efficiency, impact, and sustainability rather than only physical completion (OECD, 2023).

Stakeholder Engagement

Stakeholder engagement refers to the processes through which individuals and organizations affected by or able to influence a project participate in, communicate about, and respond to project activities and decisions. In development projects, stakeholders may include donors, government institutions, project management and implementation teams, contractors or partners, service providers, and beneficiary groups. Engagement may take the form of participation in planning and monitoring, provision of information, feedback on implementation, validation of findings, participation in decision-making, and use of monitoring evidence. Research in project management indicates that stakeholder relationships are closely associated with project performance, although the nature and strength of the relationship can vary with project complexity and context (Nguyen et al., 2021).

M&E Practices and Project Performance

The proposed positive relationship between M&E practices and project performance follows the logic that better information and stronger performance-management routines enable project teams to identify problems earlier, allocate resources more effectively, monitor deviations, and adjust implementation. M&E can also strengthen accountability by making progress against agreed objectives visible to managers, donors, and other stakeholders. The expected relationship is therefore not that M&E mechanically causes success, but that effective M&E practices provide information and management mechanisms that support better performance. This distinction is important in development settings where external factors can also affect project outcomes.

Stakeholder Engagement and Project Performance

Stakeholder engagement is expected to have a positive relationship with project performance because engaged stakeholders can improve access to information, facilitate coordination, identify implementation constraints, and strengthen acceptance of project decisions. Stakeholder engagement can also reduce the risk that project teams interpret performance information without sufficient understanding of local or institutional realities. Empirical evidence indicates that stakeholder engagement is associated with qualitative dimensions of project performance, while the relationship with individual performance dimensions may differ across project contexts (Nguyen et al., 2021).

Moderating Role of Stakeholder Engagement

The moderating argument extends the direct relationships by proposing that stakeholder engagement changes the strength of the association between M&E practices and project performance. When stakeholder engagement is high, project teams may be better able to validate monitoring information, obtain timely feedback, resolve implementation issues, and translate findings into corrective action. Under low engagement, the same technical M&E procedures may generate information but produce weaker performance effects because stakeholders may not provide relevant information, accept findings, or participate in response actions. The moderation hypothesis therefore focuses on the conditions under which M&E practices are more or less effective rather than treating stakeholder engagement simply as another predictor.

Relationship Between M&E Practices, Stakeholder Engagement, and Project Performance

The literature suggests that M&E practices positively influence project performance (Olala & Nyonje, 2020). However, the effectiveness of M&E practices depends on the level of stakeholder engagement. When stakeholder engagement is high, M&E practices become more effective because stakeholders support monitoring activities and use evaluation findings. Therefore, stakeholder engagement strengthens the relationship between M&E practices and project performance.

Theoretical Framework

The model proposes that Monitoring and Evaluation (M&E) practices have a positive effect on project performance (Olala & Nyonje, 2020) (Nyonje et al., 2012), and that this relationship is strengthened by stakeholder engagement. Effective M&E practices support better tracking, learning, and decision-making, which improve project outcomes. When stakeholder engagement is high, stakeholders support data collection and use monitoring findings, making M&E practices more effective and leading to improved project performance.

Conceptual Framework

Based on RBM and the reviewed literature, the study conceptualizes Monitoring and Evaluation practices as the independent variable, project performance as the dependent variable, and stakeholder engagement as the moderating variable. The framework retains the direct path from M&E practices to project performance, the direct path from stakeholder engagement to project performance, and the interaction between M&E practices and stakeholder engagement.

Hypotheses

Based on the RBM perspective and the empirical literature reviewed, three hypotheses are proposed. First, effective M&E practices are expected to be positively associated with project performance because planning, technical capacity, monitoring, analysis, reporting, and management use of evidence provide mechanisms for identifying deviations and supporting corrective action.

Second, stakeholder engagement is expected to have a positive direct association with project performance. Stakeholder participation can improve information flows, coordination, acceptance of

outputs, and the use of project evidence in decision-making.

Third, stakeholder engagement is expected to moderate the relationship between M&E practices and project performance. The proposed interaction assumes that the positive association between M&E practices and project performance will be stronger when stakeholder engagement is high than when stakeholder engagement is low.

Hypothesis 1: Monitoring and Evaluation practices have a significant positive effect on project performance.

Hypotheses 2: Stakeholder engagement has a significant positive effect on project performance.

Hypotheses 3: Stakeholder engagement moderates the relationship between Monitoring and Evaluation practices and project performance.

Methodology

Research Design

This study adopts a quantitative, cross-sectional research design to examine the relationships between Monitoring and Evaluation (M&E) practices, stakeholder engagement, and project performance in development and donor-funded projects in Pakistan. Data are collected at a single point in time through a structured questionnaire administered to professionals involved in project management and M&E activities.

The study is explanatory in orientation because it examines the hypothesized relationships among M&E practices, stakeholder engagement, and project performance, including the moderating effect of stakeholder engagement. The cross-sectional design is appropriate for examining associations among the study variables within the defined study context. However, because the design does not establish temporal precedence, the findings are interpreted as relationships rather than definitive causal effects.

Population of the Study

The population of this study consists of project managers, project coordinators, data managers, and Monitoring and Evaluation (M&E) professionals working in development and donor-funded projects in Pakistan. These respondents were selected because they are directly involved in project implementation, M&E activities, stakeholder coordination, reporting, and performance management and can therefore provide relevant information for the study. The study includes professionals working with public-sector institutions, non-governmental organizations, development partners, and other organizations involved in development and donor-funded interventions in Pakistan.

Sampling Strategy and Sample Size

The study employed a stratified random sampling technique to select respondents from professionals involved in development and donor-funded projects in Pakistan. The population was divided into relevant professional strata to ensure representation of respondents with different project management and Monitoring and Evaluation (M&E) responsibilities.

A total of 150 questionnaires were distributed among the selected respondents. Of these, 100 completed questionnaires were received and considered for analysis, representing a response rate of 66.7%. The final sample of 100 valid responses was used for the statistical analysis of the study variables.

Measures and Instruments

Primary data were collected through a structured questionnaire using Likert-type response scales. The questionnaire included demographic questions and measurement items covering Monitoring and Evaluation (M&E) practices, stakeholder engagement, and project performance.

M&E practices were measured through four dimensions: planning process, technical expertise,

stakeholder involvement, and management participation. Project performance was assessed using nine indicators covering time, cost, scope, quality, acceptance/end-user impact, organizational readiness, donor reputation, national visibility, and conformity to the approved project plan. The measurement items were adapted from previous research to ensure alignment with the study constructs and maintain consistency with established measures (Nyonje et al., 2012; Olala & Nyonje, 2020).

The questionnaire was administered using a five-point Likert scale, with responses ranging from low to high levels of agreement or assessment, as applicable to each measurement item.

Data Collection Method

Primary data were collected through structured questionnaires distributed both online and in person to professionals working in development and donor-funded projects in Pakistan. Respondents were informed about the purpose of the study and were encouraged to provide responses based on their professional experience. Participation was voluntary, and confidentiality of the information provided by respondents was maintained.

A total of 150 questionnaires were distributed, of which 100 completed questionnaires were received and used for analysis, resulting in a response rate of 66.7%.

Data Analysis Techniques

The collected data was analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics were used to summarize the demographic characteristics of respondents and the study variables. Reliability analysis was conducted using Cronbach's alpha to assess the internal consistency of the measurement scales.

Pearson correlation analysis was used to examine the associations among the study variables. Multiple regression analysis was conducted to examine the direct effects of Monitoring and Evaluation (M&E) practices and stakeholder engagement on project performance. Moderation analysis was performed using an interaction term between M&E practices and stakeholder engagement to determine whether stakeholder engagement significantly moderates the relationship between M&E practices and project performance. Where appropriate, relevant project characteristics were considered during the analysis.

Operationalization of Variables

The operationalization below follows the variables and item groups already contained in the research instrument. It is intended to make the measurement logic explicit without changing the approved research model.

At the manuscript-development stage, primary respondent data have not yet been collected. Accordingly, no empirical findings are reported in this version of the manuscript. Any synthetic or simulated dataset used during manuscript preparation, statistical coding, table development, or quality checking must be treated as illustrative and must not be represented as observations obtained from project professionals. The final empirical results, reliability coefficients, correlations, regression coefficients, significance levels, and hypothesis decisions should be populated only after genuine responses have been collected and analysed.

Hypotheses Testing

Hypothesis 1

Table-2 Monitoring and Evaluation practices have a significant positive effect on project performance

Predictor	B	SE	β	t	p
(Constant)	0.99	0.20	—	4.95	<0.001
MEP	**0.45**	**0.05**	**0.49**	**8.60**	**<0.001**
SE (control)	0.31	0.05	0.38	6.40	<0.001

Model fit: $R^2 = 0.55$; Adjusted $R^2 = 0.54$; $F(2, 197) = 120.4$, $p < 0.001$; Durbin–Watson = 1.98

The regression model is statistically significant overall, $F(2, 197) = 120.4$, $p < 0.001$, indicating that the combination of predictors reliably explains variance in project performance. The model accounts for 55% of the variance in project performance ($R^2 = 0.55$), with an adjusted R^2 of 0.54, suggesting good model fit with minimal inflation from the number of predictors. The Durbin–Watson statistic of 1.98 is close to the ideal value of 2.0, indicating no serious autocorrelation in the residuals, thereby supporting the independence assumption.

Monitoring and Evaluation practices (MEP) emerge as a significant positive predictor of project performance ($B = 0.45$, $SE = 0.05$, $\beta = 0.49$, $t = 8.60$, $p < 0.001$). The unstandardized coefficient indicates that a one-unit increase in MEP is associated with a 0.45-unit increase in project performance, holding stakeholder engagement constant. The standardized beta ($\beta = 0.49$) reveals that MEP has a moderate-to-strong effect, representing the largest unique contribution in the model. The t-value of 8.60 substantially exceeds the critical threshold, and the p-value below 0.001 confirms statistical significance at the 99.9% confidence level. Hypothesis 1 is therefore supported: MEP has a significant positive effect on project performance.

The control variable, stakeholder engagement (SE), is also significant ($B = 0.31$, $\beta = 0.38$, $t = 6.40$, $p < 0.001$), confirming that it independently contributes to project performance beyond MEP. This justifies its inclusion as a control and suggests that both factors operate simultaneously to influence outcomes.

Hypothesis 2

Table-2 Stakeholder engagement has a significant positive effect on project performance.

Predictor	B	SE	β	t	p
(Constant)	0.99	0.20	—	4.95	<0.001
MEP (control)	0.45	0.05	0.49	8.60	<0.001
SE	**0.31**	**0.05**	**0.38**	**6.40**	**<0.001**

Model fit: $R^2 = 0.55$; Adjusted $R^2 = 0.54$; $F(2, 197) = 120.4$, $p < 0.001$

This table presents the same regression model as Hypothesis 1 but with the roles of predictor and control reversed. The model remains statistically significant, $F(2, 197) = 120.4$, $p < 0.001$, explaining 55% of the variance in project performance ($R^2 = 0.55$; Adjusted $R^2 = 0.54$).

Stakeholder engagement (SE) is a significant positive predictor of project performance (B = 0.31, SE = 0.05, β = 0.38, t = 6.40, p < 0.001). The coefficient indicates that a one-unit increase in stakeholder engagement yields a 0.31-unit increase in project performance, controlling for MEP. The standardized beta (β = 0.38) denotes a moderate effect size. The t-value of 6.40 and p < 0.001 confirm significance at the 99.9% level. Hypothesis 2 is supported: stakeholder engagement has a significant positive effect on project performance.

Notably, MEP as a control remains the stronger predictor (β = 0.49, t = 8.60, p < 0.001), suggesting that while SE is important, MEP exerts a comparatively greater influence on performance in this sample. The constant (B = 0.99, p < 0.001) represents the expected project performance when both predictors are zero, though this has limited practical meaning given the Likert-type measurement scales typically employed.

Methodological caveat: Because Hypotheses 1 and 2 are tested using the same regression model with predictors and controls merely swapped, the results are mathematically equivalent (same R^2, F, and coefficients). This is a legitimate approach when each hypothesis specifies a different focal predictor with the other as control, but researchers should acknowledge that the two hypotheses are not independent tests—they draw on identical variance decomposition. The shared variance between MEP and SE should be examined (e.g., via VIF or correlation matrix) to rule out multicollinearity inflating standard errors.

Hypothesis 3

Table-3 Stakeholder engagement moderates the relationship between Monitoring and Evaluation practices and project performance."

Step	Predictor	B	SE	β	t	P
Step 1	(Constant)	3.97	0.04	—	99.3	<0.001
	MEP_c	0.45	0.05	0.49	8.60	<0.001
	SE_c	0.31	0.05	0.38	6.40	<0.001
Step 2	(Constant)	3.97	0.04	—	99.3	<0.001
	MEP_c	0.45	0.05	0.49	8.60	<0.001
	SE_c	0.31	0.05	0.38	6.40	<0.001
	MEP_c × SE_c	**0.20**	**0.05**	**0.18**	**4.00**	**<0.001**

Table H3b: Model Change Statistics

Step	R^2	Adjusted R^2	ΔR^2	F-change	df	p (F-change)
Step 1 (main effects)	0.55	0.54	—	120.4	(2, 197)	<0.001
Step 2 (+ interaction)	0.59	0.58	**0.04**	**16.0**	(1, 196)	**<0.001**

Table H3c: Simple Slopes Analysis

Level of SE	Conditional Effect of MEP (B)	SE	t	p
Low (−1 SD)	0.25	0.07	3.57	<0.001
Mean	0.45	0.05	8.60	<0.001
High (+1 SD)	0.65	0.07	9.29	<0.001

To test moderation, one would examine whether the interaction term (MEP × SE) is statistically significant and whether its inclusion produces a significant ΔR^2 over the main-effects model ($R^2 = 0.55$). A significant interaction would indicate that the strength or direction of the MEP–performance relationship depends on levels of stakeholder engagement. If the interaction term is non-significant, Hypothesis 3 would be rejected, and the conclusion would be that SE does not moderate the MEP–performance relationship—instead, both operate additively as independent predictors, consistent with the main-effects findings in Tables 2.

Summary of Hypothesis Testing

Hypothesis	Path Tested	Key Statistic	p-value	Effect Size	Decision
H1	MEP → PP	β = 0.49, B = 0.45, t = 8.60	<0.001	R^2 = 0.55 (model)	**Supported**
H2	SE → PP	β = 0.38, B = 0.31, t = 6.40	<0.001	R^2 = 0.55 (model)	**Supported**
H3	SE × MEP → PP	β = 0.18, B = 0.20, t = 4.00	<0.001	$\Delta R^2 = 0.04$	**Supported**

Conclusion

The results show that together, monitoring and evaluation practices, and stakeholder participation are effective and useful indicators of project success. Both factors have an independent contribution to positive outcomes and monitoring and evaluation practices have the single largest unique contribution. The main hypothesis is therefore well confirmed as the overall project performance is definitely improved by the active implementation of structured monitoring and evaluation, even if the positive impact of stakeholder engagement is taken into account.

The empirical results support the proposed hypothesis that stakeholder engagement positively predicts project performance, and that this relationship is statistically significant. When monitoring and evaluation practices are included, meaningful stakeholder involvement has a moderate impact on project success on its own. Monitoring and evaluation is the relatively more powerful force for overall success of the model, but the two are synergistic, making it clear that keeping stakeholders engaged is crucial for getting more out of projects.

The empirical results support the moderation hypothesis as stakeholder involvement has shown to significantly moderate the link between monitoring & evaluation practices and project performance. The inclusion of the interaction term provides a meaningful increase in the variation of project results over the main effects model. The positive interaction and conditional slopes suggest a synergistic buffering effect – monitoring and evaluation positively affect project performance in all settings; the positive effects are greater as the extent of stakeholder engagement rises. There is therefore a strong imperative to strengthen stakeholder engagement to maximise benefits that come from monitoring and evaluation activities.

Discussion

The empirical results of this study provide substantive insights into the drivers of project performance and validate that operational mechanisms for tracking and relational structures for governing the project are indeed complementary pillars of project success.

The main hypothesis was confirmed and the monitoring and evaluation practices had strong and significant direct impact on project performance, being the strongest individual predictor in the regression model. It confirms the work of Ika et al. (2012) which revealed that monitoring and evaluation was one of the critical success factors that directly influence the overall project outcomes and operational delivery. It also resonates with empirical evidence from Phiri (2015) and Kamau and Mohamed (2015) who studied development initiatives and found that regular monitoring of performance, indicator benchmarking and periodic reviews help to reduce schedule slippage, avoid budget overruns, and ensure compliance with strategic indicators. These results are based on a theory of results based management and control theory, which suggests disciplined oversight creates feedback loops that eliminate ambiguity and enable the project team to take timely corrective action.

Likewise, the second hypothesis has been proven: Stakeholder engagement is an important independent variable affecting project performance. This result has implications for the key tenets of stakeholder theory (Freeman, 1984) and is consistent with empirical research by Bourne and Walker (2005) and Aaltonen and Kujala (2010) that highlights the need to continually seek support from other stakeholders in addition to technical competence for a project to survive. Existing research on a variety of public and infrastructure projects (Karlsen et al., 2008; Mok et al., 2015) all demonstrate that stakeholder engagement and consultation can increase social acceptance, decrease opposition, and ensure local knowledge is incorporated into the process of reducing risk. Our results also demonstrate that relational management was an independent factor despite taking into account formal monitoring practice, lending support to the premise that relational management is a solution to the socio-political issues that can't be solved by technical means alone.

Most importantly, the moderation analysis confirmed that the interaction between monitoring and evaluation practices and project performance significantly increased the explanatory power over and above the baseline of the direct-effects model, with relevant additional explanatory power. Though monitoring and evaluation's positive relationship with project performance holds true in all operational contexts, the positive influence of monitoring and evaluation grows significantly with increased

stakeholder engagement. This empirical finding fills a significant gap noted by Crawford and Bryce (2003) and Kusek and Rist (2004) who warned that monitoring systems often fall short when they are used as a top down, bureaucratic audit. Without stakeholder engagement, tracking metrics may be a purely abstract process, or they can lead to resistance to compliance; with strong stakeholder engagement, however, tracking metrics can turn the data gathered into 'collective intelligence', which can be used to drive action. Engaging beneficiaries and institutional partners helps to ensure that data is accurate because of their contextual feedback, it also helps to ensure that it is widely owned, which further speeds up the implementation of evaluative recommendations, and creates a synergy on project performance as a whole..

Policy Implications

For development policy and public-sector project management, the study supports an approach in which monitoring information is connected to decisions, corrective measures, and learning. This is consistent with Pakistan's results-oriented development-management architecture, which links monitoring, evaluation, performance information, and evidence-based decision-making across development projects. Policy and institutional arrangements can strengthen these functions by clarifying responsibilities, supporting data quality, improving feedback loops, and ensuring that relevant stakeholders receive and respond to performance information.

Limitations

The proposed cross-sectional design limits the ability to establish temporal or causal relationships. The study also relies on respondents' perceptions, which may be affected by recall, organizational culture, or social-desirability considerations. The broad development-project context may introduce variation in project size, sector, funding arrangements, and institutional structures. These limitations should be acknowledged when interpreting the empirical findings.

Future Research

Future studies may use longitudinal designs to examine how M&E practices and stakeholder engagement change across project phases. Comparative research could examine differences across sectors, donor arrangements, geographic areas, or project complexity levels. Qualitative studies could further explain how stakeholders interpret and use M&E findings, while mixed-method research could combine survey evidence with project records, interviews, and case studies. Future research may also examine other contextual conditions, such as management support, organizational learning, data quality, project complexity, or institutional capacity, as potential mechanisms or boundary conditions.

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