

Evaluation Results Dissemination Strategy and Performance of Highway Construction Projects in Kenya

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Abstract

Highway construction projects in Kenya consistently encounter challenges such as delays, cost overruns, and suboptimal quality (Muchiri & Mose, 2022; Mugweru & Muchelule, 2022). These recurring issues underscore the critical need for enhanced decision-making and more effective stakeholder engagement (Ndurya and Bii, 2019). A crucial yet underexplored factor contributing to these challenges is the efficacy of evaluation results dissemination (Mutekhele et al., 2018). While evaluations are designed to foster improved project outcomes, prior research presents varied findings regarding the actual impact of dissemination strategies on project performance (Mutekhele et al., 2018). This study's objective was to investigate the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya.

This research was grounded in the Utilization-Focused Evaluation (UFE) theory (Patton, 1978). Adopting a pragmatist research philosophy, the study employed a correlational design. The target population comprised 69 Category A road construction projects completed by the Kenya National Highways Authority (KeNHA) between 2018 and 2022. The respondents for these projects were the project managers across all 69 highway construction projects in Kenya. A census approach was utilized, ensuring the inclusion of all projects in the study.


The research incorporated both secondary and primary data. A data collection checklist was employed for gathering secondary data from KeNHA reports. Primary data were collected through semi-structured questionnaires. Qualitative data underwent thematic analysis, while quantitative data were analyzed using descriptive and inferential statistics.

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The study concluded that evaluation results dissemination strategy exerts a positive and significant impact on the performance of highway construction projects in Kenya. Consequently, the study recommends that project managers implement effective dissemination strategies for evaluation findings to facilitate timely and accessible communication with all stakeholders.

Keywords: Evaluation Results Dissemination, Performance, Construction Projects

I. Introduction

Globally, project performance holds paramount importance for economies, serving as a catalyst for driving and fostering economic advancement (Lubna & Jahaf, 2023). Over the past thirty years, numerous road infrastructure projects have been proposed and implemented worldwide to address transportation needs and stimulate development. However, these efforts continue to encounter substantial challenges related to cost, time, and quality. Belay, Tilahun, and Yehualaw (2021) report that global construction projects face cost overruns ranging from 1% to 248%, with an average of 35%. Similarly, delays in road construction projects range from a minimum of 3% to a staggering 802%, with an average of 143%. In the United Kingdom, Locatelli, Invernizzi, and Brookes (2017) found that infrastructure projects historically suffer from low delivery performance, especially regarding schedule and cost. In the United States, Australia, and the United Kingdom, despite achieving quality standards and customer satisfaction, Patanaku, Kwak, and Liu (2016) observed that projects still frequently suffer from time and cost overruns. These problems are not limited to developed countries. Across Africa, road construction projects also face major performance hurdles. In Nigeria, infrastructure projects often exceed budgets by up to 50%, with average delays of 30% (National Bureau of Statistics, 2021). Ghana's Ministry of Roads and Highways (2020) attributes 20% cost overruns to poor planning and resource allocation. In Ethiopia, delays of up to 40% are common, significantly impeding project delivery (Moges & Amare, 2018). Uganda's Office of the Auditor General (2020) reported average completion delays of 15 months for road projects, contributing to cost increases and reduced efficiency in service delivery. To address these performance challenges, governments and institutions have increasingly emphasized the role of evaluation mechanisms in project oversight. One key aspect of this is the strategy used to disseminate evaluation results. Effective dissemination ensures that findings and recommendations are timely, clear, and actionable by stakeholders, enhancing both decision-making and project implementation (Ashcraft, Quinn, & Brownson, 2020; Zhu et al., 2024). Dissemination strategies encompass multiple dimensions: appropriate formats, synchronization with decision timelines, and tailored communication for varied stakeholder needs (Masvaire & Fish, 2022; Imaniah, Shahreza, & Purwanto, 2024). According to Huang (2025), successful information dissemination relies on contextual relevance, trust in the communication channels, and alignment with stakeholder expectations factors that are particularly crucial in infrastructure projects involving multiple stakeholders. Kenya has made significant investments in road infrastructure, with the Kenya National Highways Authority (KeNHA) at the forefront of managing and delivering national highway projects. Despite regular evaluations, project outcomes remain suboptimal. As Ndurya and Bii (2019) report, challenges persist in meeting budget constraints, maintaining quality, and ensuring timely project completion. Muchiri and Mose (2022) highlight that over 55% of road construction projects in Kenya encounter delays, cost overruns, or fail to meet quality expectations. The Thika Superhighway project, for example, exceeded its original budget by 23.25% and experienced a two-year delay (Mwita, 2020). These issues reflect broader shortcomings in how evaluation results are communicated and utilized within project frameworks. Although global and regional studies have addressed project performance and evaluation mechanisms, few have examined the specific influence of evaluation results dissemination strategies on project performance, particularly in large-scale infrastructure contexts. Prior research shows mixed results: some studies (e.g., Amina & Ngugi, 2022) found a strong correlation between dissemination strategies and improved performance, while others (e.g., Mutekhele et al., 2018) observed no significant effect. Moreover, most existing studies focus on sectors such as health (Osvaldo, Cícera, & Cláudia, 2021) or disaster management, with limited generalizability to road infrastructure. Research also tends to overlook how dissemination strategy design affects utility and uptake of evaluation findings in practice. This study aims to fill this critical gap by examining the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya. Unlike prior studies that employed descriptive designs and random sampling, this research uses a census approach targeting all Category A road projects completed by KeNHA between 2018 and 2022. The originality of this study lies in its focus on infrastructure project settings in developing countries, incorporation of both qualitative and quantitative methods, and integration of stakeholder communication theories in project performance analysis. Anchored in the Utilization-Focused Evaluation (UFE) theory (Patton, 1978), this study examines how the usability of evaluation findings is contingent upon strategic dissemination. UFE posits that evaluations are most useful when designed with the needs of intended users in mind, and when findings are shared in ways that facilitate utilization. This theoretical foundation allows for a nuanced understanding of how dissemination strategy can bridge the gap between evaluation and action.

Practically, the study offers insights for policymakers and project managers on how to enhance project outcomes by improving the flow of evaluation information.

The novelty of this research lies in its contextual focus, theoretical framing, and methodological rigor. By exploring evaluation results dissemination as a driver of project performance, it contributes to project management literature in underrepresented regions. It also responds to recent calls (Zhu et al., 2024; Huang, 2025) for better communication strategies in technical fields and highlights how tailored dissemination can increase transparency, accountability, and stakeholder involvement in infrastructure development.

Problem Statement

The evaluation results dissemination strategy plays a crucial role in enhancing road project performance by ensuring that key evaluation findings are effectively communicated to relevant stakeholders. By facilitating timely access to information, this strategy promotes informed decision-making and stakeholder engagement, leading to improved project execution and outcomes (Ndurya & Bii, 2019). While some studies indicate a significant relationship between evaluation results dissemination strategy and project performance, others show no significant relationship. For instance, Amina and Ngugi (2022) found that evaluation results dissemination strategy significantly influenced project performance. Conversely, Mutekhele et al. (2018) observed no significant impact of evaluation results dissemination strategy on project performance.

National highway road construction projects in Kenya have consistently demonstrated poor performance in terms of project quality, cost-effectiveness, and completion time. Muchiri and Mose (2022) reported that approximately 55 percent of the nation's road building projects experience difficulties that prevent them from being finished on schedule, staying within budget, or meeting quality standards. Ndurya and Bii (2019) indicate that 30 percent of all road projects in Kenya stagnate, 50 percent exceed their estimated cost, and only 20 percent are completed within budget. Additionally, Mugweru and Muchelule (2022) observed that 22.5 percent of all KeNHA projects in Kenya experience time overruns, which, in turn, affects implementation costs. Some projects that have faced time overruns include the Nairobi Expressway, Bomas–Kiserian road, and the Thika Road Superhighway. For example, the cost of the Thika Superhighway project increased by 23.25 percent, from KES 26.44 billion to KES 34.45 billion (Mwita, 2020), and its deadline was extended from July 2011 to July 2013. While project evaluations aim to improve quality and ensure timely, budget-compliant implementation, the effectiveness of the Evaluation Results Dissemination Strategy is critical, as it often determines whether key findings and recommendations reach relevant stakeholders. Despite these efforts, many projects implemented by KeNHA still face performance challenges, highlighting the need for more effective communication of evaluation results to enhance decision-making and stakeholder engagement.

Various studies have been conducted globally on evaluation results dissemination strategy and project performance. For example, Ashcraft, Quinn, and Brownson (2020) assessed strategies adopted to ensure effective dissemination of research results to policymakers in the United States. Similarly, Osvaldo, Cícera, and Cláudia (2021) conducted qualitative research on the utilization of information technology in disseminating evaluation results among health projects in Brazil. However, these studies were limited to the United States and Brazil and did not demonstrate how evaluation results dissemination strategy influences project performance. In Kenya, Amina and Ngugi (2022) studied the effects of monitoring utilization and evaluation of results on project performance in drought-resistant projects by the National Drought Management Authority (NDMA) in Mandera County. However, Amina and Ngugi (2022) used a descriptive research design and stratified random sampling for sample selection, whereas the current study employed a census approach. Furthermore, their study focused on drought resilience projects by NDMA. Different types of projects have varying resource requirements in terms of financial resources, technical expertise, and technological capacity. Additionally, projects differ in size and scope. As such, the findings of Amina and Ngugi (2022) cannot be generalized to national highway construction projects in Kenya. Therefore, this study seeks to examine the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya.

II. Literature Review and Development of Hypotheses

Theoretical Review

This study was anchored on Utilization-Focused Evaluation (UFE) theory. Developed by Patton (1978), UFE is an evaluation theory and approach that focuses on the intended use and utilization of evaluation findings. UFE places a strong emphasis on making evaluation processes and results relevant and meaningful for stakeholders and decision-makers (Schurink & Schurink, 2019). The theory suggests that evaluations should be adapted to meet the particular needs of intended users and provide relevant and timely information. UFE emphasizes ensuring that evaluation findings are actionable and accessible, and that they align with the priorities of decision-makers (Rehman & Shaikh, 2017). The main components of utilization-focused evaluation include evaluation design for

utilization, credibility, timeliness, relevance, as well as communication and reporting. Utilization-Focused Evaluation (UFE) is grounded in several key assumptions. First, it posits that the primary purpose of evaluation is to provide useful and meaningful information to stakeholders (Patton, 1978). Thus, the evaluation process should be designed to enhance utilization and inform decision-making. Additionally, UFE assumes that employing multiple methods and data sources leads to a more comprehensive understanding of the project. Crucially, it recognizes that stakeholders play an essential role in the evaluation process, with their active involvement ensuring the evaluation aligns with their needs and priorities. However, criticisms of UFE include concerns about potential bias introduced by stakeholder engagement (Schurink & Schurink, 2019) and a narrow focus that may overlook unintended outcomes or broader impacts of the evaluated intervention (Rehman & Shaikh, 2017). Utilization-Focused Evaluation (UFE) Theory was used to explain the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya. According to UFE, the dissemination of evaluation findings should be tailored to meet the needs of various stakeholders, ensuring that information is accessible and understandable. A strategic approach to sharing results fosters transparency and encourages stakeholder engagement, leading to informed decision-making and prompt actions based on the findings. Effective communication of evaluation results facilitates the integration of feedback from stakeholders, which can improve project strategies and outcomes. A well-planned dissemination strategy enhances the utilization of evaluation insights, driving accountability and promoting continuous improvement in highway construction initiatives across Kenya. In the context of this study, UFE theory directly informs the selection of variables. The independent variable, evaluation results dissemination strategy, is grounded in the core UFE principle that evaluation is only valuable when its findings are communicated effectively and utilized. The dependent variable, performance of highway construction projects, is aligned with UFE's intended outcome of improving project effectiveness through informed decision-making. By connecting the strategy of dissemination to project performance, the study objective of assessing the influence of communication of evaluation results on highway project outcomes is theoretically justified. Therefore, UFE provides a coherent framework that underpins the study's focus, guides the operationalization of variables, and supports the broader aim of enhancing infrastructure project success through actionable evaluation practices.

Empirical Literature Review

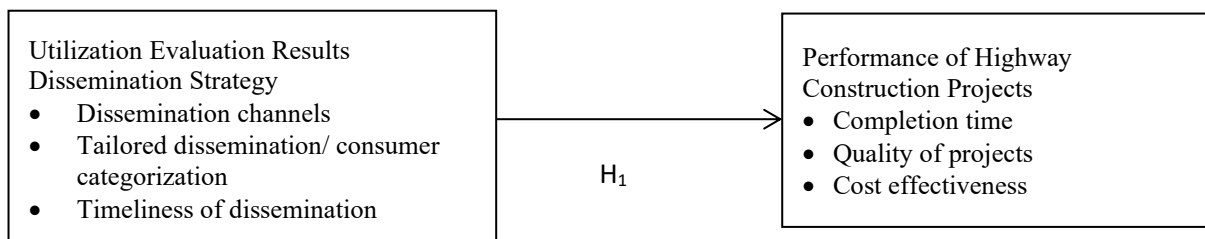
Ashcraft, Quinn, and Brownson (2020) conducted a systematic review to assess strategies adopted for the effective dissemination of research results to policymakers in the United States. Utilizing literature from social work abstracts, academic search premier, SocINDEX, and PolicyFile, their findings indicated that effective dissemination strategies included the development of reports and the use of multiple dissemination channels such as official reports, emails, and social media platforms. However, this research was conducted in a developed country, thus its outcomes may not be generalizable to developing countries like Kenya. Furthermore, the study did not demonstrate the direct impact of effective dissemination of research findings on project performance. Methodologically, the study relied solely on a systematic review of literature, without gathering any primary information. Osvaldo, Cícera, and Cláudia (2021) carried out qualitative research on the utilization of information technology in the dissemination of evaluation results among health projects in Brazil. This research employed a case study design and a qualitative approach. Qualitative data were gathered through key informant interviews and analyzed using content analysis. The results indicated that information technology usage in the dissemination of evaluation results improved the performance of health projects. Outcomes also revealed that digital inclusion and technological infrastructure led to an improvement in project performance. However, the study was limited to health projects in Brazil, which differ significantly from road construction projects in Kenya. Additionally, the research's purely qualitative approach may not be suitable for quantitatively indicating the strength of the link between independent and dependent variables. Winiko, Mbugua, and Kyalo (2018) examined the impacts of disseminating evaluation results on the performance of Malawi's digital education technology projects. Their research employed a descriptive correlational design, targeting 456 stakeholders in digital education technology projects. Primary information was gathered through key informant interviews and questionnaires. The findings indicated that the dissemination of evaluation results, measured in terms of stakeholders' involvement, collection of evaluation feedback, and clarity of the dissemination plan, had a significant effect on digital education technology project performance. Besides being limited to Malawi, the focus of this study was digital education technology projects, which are distinct from highway construction. Furthermore, the conceptualization of evaluation results dissemination in terms of stakeholders' involvement, collection of evaluation feedback, and clarity of the dissemination plan differs from the current study's broader focus. Thambura et al. (2025) examined how knowledge-sharing practices within monitoring and evaluation (M&E) influence the performance of development programs in Kenya. The study employed a mixed-methods research design, integrating both qualitative and quantitative approaches for comprehensive data collection and analysis. The findings revealed that knowledge-sharing practices in M&E were positively perceived and contributed meaningfully to program performance. Respondents generally agreed that the programs under study were performing well, and strong evidence supported a positive relationship between knowledge-sharing practices and the overall effectiveness of

these programs. However, this study broadly examined knowledge-sharing practices without isolating or specifically defining evaluation results dissemination strategies as a distinct component. It did not conceptualize dissemination methods or the strategy behind who receives what information, when, and how. In addition, the study sampled stakeholders involved in livelihood programs, which may not reflect the specialized context and technical requirements of the road construction sector. Amina and Ngugi (2022) examined the impact of utilizing monitoring and evaluation (M&E) results on the performance of drought resilience projects implemented by the National Drought Management Authority (NDMA) in Mandera County, Kenya. The study employed a descriptive research design with a census survey approach, targeting all 60 members involved in NDMA's drought resilience projects. Both primary and secondary data sources were utilized, with data collection conducted using semi-structured questionnaires. The study found that the utilization of M&E results had a significant positive influence on project performance. However, this study focused broadly on the utilization of M&E results but did not define or analyze the dissemination strategy that is, how results are communicated, to whom, when, and through what channels. Furthermore, the study context was humanitarian/development-focused (food security and drought response), whereas the current study targets infrastructure development, particularly highway construction projects, which involve different performance metrics. Ibrahim and Njue (2024) examined the effect of the dissemination of M&E findings on the sustainability of building construction projects. The study focused on the Convention Facility at the Kenya School of Government in Embu County, Kenya. The research adopted a descriptive survey design. From a target population of 180 individuals, a sample size of 123 was selected using simple random sampling. Data collection was carried out using structured questionnaires and an interview guide. The findings indicated that the dissemination of M&E findings had a positive and statistically significant influence on the sustainability of the project. The study was conducted in a public institutional setting within the education/government training sector (Kenya School of Government), focusing on building construction projects. This context is vastly different from highway construction projects, which involve complex, multi-agency coordination, larger budgets, and distinct regulatory and operational frameworks.

Conceptual Framework

A conceptual framework refers to a group of related ideas, concepts, and principles that create a basis for the comprehension of a particular subject or phenomenon. In this study, the independent variable was evaluation results dissemination strategy, and the dependent variable was performance of highway construction projects, as shown in Figure 1.

Figure 1. Conceptual Framework



Note: Author's own work

Independent Variables

Dependent Variable

From the empirical review and the conceptual framework, the following hypothesis was tested at the five percent level of significance:

H₀₁: Evaluation results dissemination strategy has no statistically significant influence on the performance of highway construction projects..

III. Methodology

This research adopted a pragmatism philosophy of research given its combination of both qualitative and quantitative research approaches. A correlational design was employed for this study. The target population comprised all Category A construction projects completed by KeNHA between 2018 and 2022. According to KeNHA (2022), there were 69 such projects within this period. The respondents for these projects were the project managers in all 69 highway construction projects in Kenya. The study utilized a census approach, including all 69 Category A construction projects completed by KeNHA from 2018 to 2022.

The research adopted both secondary and primary data. A data collection checklist was used to gather secondary data from KeNHA reports. Secondary data on estimated project cost, completion cost, estimated time, and completion time were utilized to complement primary data on the performance of national highway road construction projects. Semi-structured questionnaires were used to collect data from project managers across all 69 highway construction projects. The structured (closed-ended) questions incorporated both nominal and Likert scales. A Likert scale is a psychometric rating tool commonly used in surveys to measure attitudes or opinions by presenting a statement and asking respondents to indicate their level of agreement on a symmetrical scale (Babbie, 2020). In this study, a five-point Likert scale was used to measure respondent perceptions, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The unstructured (open-ended) questions were adopted to encourage participants to provide detailed responses without fear of withholding any information.

To address the validity and reliability of the research instrument, the study employed both content and face validity checks. Content validity was ensured through expert review by project management professionals and academic supervisors who assessed the relevance and clarity of questionnaire items. Face validity was established through a pilot test conducted at KeNHA headquarters with 10% of the sample ($n = 7$), where respondents provided feedback on the clarity, structure, and interpretation of the questions. Based on the pilot results, revisions were made to address unclear wording, redundant items, and inconsistent terminology. These changes improved the instrument's precision and comprehensibility. Reliability was assessed using Cronbach's alpha, with all constructs achieving values above the acceptable threshold of 0.7, indicating strong internal consistency. This process confirmed that the questionnaire was both valid and reliable for data collection.

Diagnostic tests were conducted to assess five main assumptions of linear regression analysis, which included tests for linearity, normality, multicollinearity, homoscedasticity (uniform variance), and serial correlation, to ensure that the collected data met the statistical assumptions. Both quantitative and qualitative data were generated by the research instruments. While qualitative data were analyzed using thematic analysis, quantitative data were analyzed using descriptive and inferential statistics. Descriptive statistics included standard deviation, means, percentages, and frequency distribution. Inferential statistics included simple linear regression analysis and Pearson correlation coefficient. The regression model was as follows:

$$PER = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where; PER is performance; ERDS is Evaluation Results Dissemination Strategy; β_1 is the beta coefficient; ε is error term

IV. Results

The respondents in this study were project managers in 69 Category A road construction projects completed by KeNHA between 2018 and 2022. Out of 69 questionnaires distributed, 67 were filled and returned for analysis, resulting in a response rate of 97.10%. Baruch and Holtom (2019) assert that a 50% response rate is generally suitable for organizational research, balancing practicality with sufficient data representation. Fincham (2021) recommends aiming for a 60-70% response rate in social science surveys, as higher rates help improve reliability, particularly in studies needing broad generalizability. In addition, Mellahi and Harris (2020) suggest that in strategic management research, a response rate closer to 70% is ideal to enhance validity and ensure representativeness across different demographics. Therefore, a response rate of 97.10% is considered highly acceptable for drawing conclusions and ensuring the generalizability of the findings.

Respondent's Background Information

The findings revealed a range of educational backgrounds among respondents, from those with college diplomas to those with university-level qualifications. As shown in Table 1, 85.1% (57) of respondents held undergraduate degrees, suggesting that a bachelor's level education is the most common qualification among these professionals. A smaller proportion, 11.9% (8), had pursued further education and held Master's degrees, while 3% (2) indicated they had college diplomas. This distribution demonstrates that the majority of respondents possess a strong level of education, ranging from diplomas to Master's degrees. This educational background was beneficial for the data collection process, as respondents with these qualifications could comprehend and address the questions with a higher degree of confidence and accuracy. This contributed to the reliability and validity of the responses collected.

Table 1. Distribution of Respondents by Education Level

| Education Level | Frequency | Percent |
|----------------------|-----------|------------|
| Master's Degree | 8 | 11.9 |
| Undergraduate degree | 57 | 85.1 |
| College Diploma | 2 | 3 |
| Total | 67 | 100 |

Note: Author's own work

[Table 2](#) presents the distribution of respondents' work experience at the Kenya National Highways Authority (KeNHA). From the results, 61.2% (41) of the respondents had substantial work experience ranging from 11 to 20 years. A significant portion, 26.9% (18), had 5 to 10 years of experience, while 9% (6) had more than 20 years of experience, and 3% (2) had less than 5 years of experience. This distribution indicates a well-rounded team with a dominant presence of highly experienced project managers, supplemented by mid-level and a few highly seasoned and entry-level managers, providing a diverse range of experiences and perspectives.

Table 2. Distribution of Respondents by Duration Served in KENHA

| Period in Years | Frequency | Percentage (%) |
|-------------------|-----------|----------------|
| Less than 5 years | 2 | 3 |
| 5 to 10 years | 18 | 26.9 |
| 11 to 20 years | 41 | 61.2 |
| Above 20 years | 6 | 9 |
| Total | 67 | 100 |

Note: Author's own work

Performance of National Highway Road Construction Projects

As shown in [Table 3](#), the respondents expressed neutrality regarding the statement that KeNHA continuously seeks innovative construction methods and technologies to improve project completion time, as indicated by a mean of 2.75 (SD = 1.049). The respondents disagreed (mean = 2.28, SD = 0.918) that National Highway Road construction projects are executed efficiently, minimizing delays and disruptions. Furthermore, with a mean of 1.58 (SD = 0.89), respondents disagreed that National Highway Road construction projects are completed within the planned timeframe.

Respondents were neutral (mean = 2.69, SD = 0.925) on the statement indicating that National Highway Road construction projects are built with attention to detail and precision, ensuring high-quality construction. Similarly, with a mean of 2.84 (SD = 0.846), respondents were neutral that National Highway Road construction projects demonstrate durability and resilience, capable of withstanding various environmental and usage conditions. Additionally, with a mean of 2.37 (SD = 1.204), respondents disagreed that National Highway Road construction projects meet or exceed established quality standards and specifications.

Regarding cost-effectiveness, respondents disagreed (mean = 2.43, SD = 1.048) that cutting-edge technologies are integrated into KeNHA's construction processes to enhance cost-effectiveness. The respondents also disagreed (mean = 2.13, SD = 0.952) that KeNHA's financial management ensures cost-effectiveness during construction. However, the respondents strongly disagreed (mean = 1.49, SD = 0.859) that National Highway Road construction projects are within or under the allocated budget.

Table 3. Completion Time and Project Performance

| Sub-variables | Statements | N | Mean | Std. Deviation |
|--|--|----|------|----------------|
| Completion Time | National Highway Road construction projects are completed within the planned timeframe. | 67 | 1.58 | 0.89 |
| | National Highway Road construction projects are executed efficiently, minimizing delays and disruptions. | 67 | 2.28 | 0.918 |
| | KeNHA continuously seek innovative construction methods and technologies to improve project completion time. | 67 | 2.75 | 1.049 |
| Quality of Project | National Highway Road construction projects meet or exceed established quality standards and specifications. | 67 | 2.37 | 1.204 |
| | National Highway Road construction projects are built with attention to detail and precision, ensuring high-quality construction | 67 | 2.69 | 0.925 |
| | National Highway Road construction projects demonstrate durability and resilience, capable of withstanding various environmental and usage conditions. | 67 | 2.84 | 0.846 |
| Cost effectiveness | National Highway Road construction projects are within or under the allocated budget. | 67 | 1.49 | 0.859 |
| | KeNHA financial management ensures cost-effectiveness during construction. | 67 | 2.13 | 0.952 |
| | Cutting-edge technologies are integrated into KeNHA's construction processes to enhance cost-effectiveness | 67 | 2.43 | 1.048 |
| Composite Mean and Standard Deviation | | | 2.28 | 0.966 |

Note: Author's own work

The participants were requested to suggest any other comments or insights related to the performance of National Highway Road Construction Projects in Kenya. From the findings, the respondents indicated that incorporating best practices and insights from National Highways performance reports can enhance the performance and success of highway construction projects in Kenya, ensuring they align with international standards, prioritize stakeholder engagement, and focus on sustainability and efficiency.

One respondent offered the following perspective: "Leveraging international best practices, focusing on quality assurance and timely delivery, implementing robust performance evaluation systems, and prioritizing sustainability initiatives, National Highway road construction projects in Kenya can strive towards excellence, efficiency, and sustainability in infrastructure development."

The respondents also indicated that KeNHA could consider implementing performance-based contracting in Kenyan highway projects to incentivize timely completion, quality construction, and adherence to budget. Furthermore, they suggested that regular inspections and strict quality control measures can prevent substandard work and reduce the need for future repairs. They also stated that performance benchmarking against international standards and best practices can guide the continuous improvement and efficiency of National Highway Road construction projects in Kenya.

Finally, the respondents indicated that the performance of National Highway Road construction projects in Kenya is vital for economic growth, trade facilitation, social inclusion, and environmental sustainability. Well-planned and efficiently executed projects can stimulate economic activity, improve connectivity, and reduce transportation costs, benefiting both businesses and communities. Prioritizing safety measures, environmental sustainability, and climate resilience is essential to mitigate risks and ensure long-term viability.

Evaluation Results Dissemination Strategy

The study sought to understand how evaluation results dissemination strategy influenced the performance of highway construction projects in Kenya. This was achieved by examining the mean and standard deviation of the data, as shown in [Table 4](#).

From the results, the respondents agreed (mean = 3.87, SD = 0.649) with the statement indicating that project evaluation findings are disseminated through diverse channels to reach a wide range of stakeholders. With a mean of 3.85 (SD = 0.657), the respondents agreed that dissemination channels for project evaluation effectively communicate the key findings and recommendations. The respondents agreed (mean = 3.79, SD = 0.708) that dissemination channels for project evaluation facilitate easy access to evaluation reports and relevant documentation.

Also, with a mean of 3.79 (SD = 0.686), the respondents agreed that evaluation findings consider the unique characteristics and preferences of diverse consumer categories. The respondents agreed (mean = 3.78, SD = 0.647) with the statement indicating that project evaluation findings are disseminated in a manner that is tailored to the specific needs and interests of different consumer groups. Likewise, with a mean of 3.78 (SD = 0.692), the respondents agreed that dissemination of evaluation findings occurs promptly after the completion of the evaluation process. The respondents agreed (mean = 3.76, SD = 0.767) that project evaluation findings are disseminated in a timely manner, allowing stakeholders to access the information when it is most relevant. With a mean of 3.75 (SD = 0.682), the respondents agreed that dissemination strategies for project evaluation effectively target and reach different consumer segments. Similarly, with a mean of 3.75 (SD = 0.682), the respondents agreed that timeliness of dissemination ensures that stakeholders can utilize the evaluation findings to inform decision-making processes.

Table 4. Evaluation Results Dissemination Strategy

| | N | Mean | Std. Deviation |
|---|----|------|----------------|
| The project evaluation findings are disseminated through diverse channels to reach a wide range of stakeholders. | 67 | 3.87 | 0.649 |
| Dissemination channels for project evaluation effectively communicate the key findings and recommendations | 67 | 3.85 | 0.657 |
| Dissemination channels for project evaluation facilitate easy access to evaluation reports and relevant documentation. | 67 | 3.79 | 0.708 |
| Project evaluation findings are disseminated in a manner that is tailored to the specific needs and interests of different consumer groups. | 67 | 3.78 | 0.647 |
| Dissemination strategies for project evaluation effectively target and reach different consumer segments. | 67 | 3.75 | 0.682 |
| Evaluation findings consider the unique characteristics and preferences of diverse consumer categories. | 67 | 3.79 | 0.686 |
| Project evaluation findings are disseminated in a timely manner, allowing stakeholders to access the information when it is most relevant. | 67 | 3.76 | 0.676 |
| Dissemination of evaluation findings occurs promptly after the completion of the evaluation process. | 67 | 3.78 | 0.692 |
| Timeliness of dissemination ensures that stakeholders can utilize the evaluation findings to inform decision-making processes. | 67 | 3.75 | 0.682 |
| Composite Mean and Standard Deviation | 67 | 3.79 | 0.675 |

Note: Author's own work

Correlation Analysis

Pearson correlation analysis is a statistical method used to measure the strength and direction of the linear relationship between two continuous variables. In this study, Pearson correlation analysis was employed to assess the relationship between evaluation results dissemination strategy and the performance of highway construction projects in Kenya.

From the results, as shown in [Table 5](#), evaluation results dissemination strategy has a positive and significant relationship with the performance of highway construction projects in Kenya ($r=0.669$, $p\text{-value}=0.000$). This suggests that effective dissemination of evaluation results positively influences project performance.

Table 5. Correlation Coefficients

| | | Project Performance | Evaluation Results Dissemination Strategy |
|---|---------------------|----------------------------|--|
| Project Performance | Pearson Correlation | 1 | .669** |
| | Sig. (2-tailed) | | .000 |
| | N | 67 | 67 |
| | Pearson Correlation | .669** | 1 |
| Evaluation Results Dissemination Strategy | Sig. (2-tailed) | .000 | |
| | N | 67 | 67 |

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

Note: Author's own work

Regression Analysis

Simple linear regression analysis was used to assess the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya. The null hypothesis tested was:

H_{01} : Evaluation results dissemination strategy has no statistically significant influence on the performance of highway construction projects in Kenya.

Table 6 presents the model summary evaluating the relationship between evaluation results dissemination strategy and the performance of highway construction projects in Kenya. The results indicate that the R-squared value is 0.447, signifying that 44.7% of the variance in the performance of highway construction projects in Kenya can be explained by the evaluation results dissemination strategy.

Table 6. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|--------------|-------------------|-----------------|--------------------------|-----------------------------------|
| 1 | .669 ^a | .447 | .439 | .36625 |

a. Predictors: (Constant), Evaluation Results Dissemination Strategy

Note: Author's own work

The analysis of variance (ANOVA), as shown in Table 7, was used to assess the significance of the model evaluating the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya. From the results, the F-calculated (20.954) was greater than F-critical (3.99), and the p-value (0.000) was less than the significance level (0.05). This implies that the model is a good fit for the data and, therefore, can be used in predicting the influence of evaluation results dissemination strategy on the performance of highway construction projects in Kenya.

Table 7. Analysis of Variance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|------------|-----------------------|-----------|--------------------|----------|-------------------|
| 1 | Regression | 7.061 | 1 | 7.061 | 52.636 | .000 ^b |
| | Residual | 8.719 | 65 | .134 | | |
| | Total | 15.780 | 66 | | | |

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Evaluation Results Dissemination Strategy

Note: Author's own work

Table 8 shows the regression coefficients for the influence of evaluation results dissemination strategy on performance of highway construction projects in Kenya. Regression equation was;

$$PER = 2.042 + 0.524ERDS$$

The results show that evaluation results dissemination strategy has a statistically significant positive influence on the performance of highway construction projects in Kenya ($\beta_1=0.524$, p-value=0.000). For every unit increase in evaluation results dissemination strategy, the performance of highway construction projects in Kenya improves by 0.524 units. The p-value for the evaluation results dissemination strategy is less than 0.05, indicating that the predictor variable is statistically significant.

Table 8. Regression Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficient | Sig. |
|---|-----------------------------|------------|--------------------------|-----------|
| | B | Std. Error | Beta | |
| 1(Constant) | 2.042 | .277 | | 7.371.000 |
| Evaluation Results Dissemination Strategy | .524 | .072 | .669 | 7.255.000 |

a. Dependent Variable: Project Performance

Note: Author’s own work

V. Discussion

The study found that evaluation results dissemination strategy has a positive and significant influence on the performance of highway construction projects in Kenya. These findings align with Osvaldo et al. (2021), who observed that evaluation results dissemination positively influences project performance in Brazil.

The study revealed that project evaluation findings are disseminated through diverse channels, ensuring broad stakeholder outreach and effective communication of key findings and recommendations. These dissemination efforts also facilitate easy access to evaluation reports and relevant documentation, enhancing transparency and accessibility across stakeholders. These findings are consistent with Ashcraft et al. (2020), who reported that effective dissemination of research results involves the development of reports and the use of multiple dissemination channels such as official reports, emails, and social media platforms.

Furthermore, the study found that evaluation findings consider the unique characteristics and preferences of diverse consumer categories. In addition, the study revealed that project evaluation findings are disseminated in a manner that is tailored to the specific needs and interests of different consumer groups. These findings agree with Osvaldo et al. (2021)’s argument that evaluation findings should take the form of specific community needs and interests.

The study findings showed that project evaluation results are disseminated in a timely manner, enabling stakeholders to access the information when it is most relevant. Moreover, the study found that these dissemination strategies effectively target and reach different consumer segments, ensuring stakeholders can utilize the findings to inform their decision-making processes. These findings are in line with Winiko et al. (2018)’s conclusion that dissemination of evaluation results should be timely to inform decision-making.

The study’s findings generally agree with Thambura et al. (2025) in confirming that knowledge-sharing practices in M&E contribute positively to program performance, although this study goes further by defining and isolating dissemination strategies as a distinct construct. The findings also align with Amina and Ngugi (2022) in demonstrating a positive influence of M&E results on project performance, although their study did not focus specifically on the dissemination process. Similarly, the study agrees with Ibrahim and Njue (2024) that dissemination of M&E findings positively influences project outcomes, though their focus was on sustainability in institutional building projects, whereas this study concentrated on performance in large-scale highway construction.

VI. Conclusion

This study concludes that evaluation results dissemination strategy has a positive and significant impact on the performance of highway construction projects in Kenya. Specifically, the study found that three key dimensions dissemination channels, tailored dissemination based on consumer categorization, and timeliness of dissemination play a critical role in influencing project outcomes. Evaluation findings are communicated through various channels to reach a wide range of stakeholders, ensuring accessibility, clarity, and relevance. These dissemination efforts are not only structured to reflect the preferences of different stakeholder groups but are also delivered in a timely manner, enabling stakeholders to make informed, evidence-based decisions that ultimately enhance project performance.

Theoretical and Practical Implications

Theoretically, the findings contribute to the growing body of knowledge on monitoring and evaluation (M&E) by bridging the gap between knowledge-sharing theory and practical dissemination strategy, specifically in the context of large-scale infrastructure projects. By isolating dissemination as a distinct construct—rather than subsuming it under general M&E utilization this study provides a more nuanced understanding of how evaluation results can be strategically communicated to optimize project performance. Practically, the study offers actionable

insights for project managers, policymakers, and infrastructure agencies, emphasizing the importance of diversified and tailored communication strategies to enhance transparency, stakeholder engagement, and project outcomes. Commercially, the findings are relevant for contractors and consultants involved in highway construction, where improved information flows can reduce project delays, minimize budget overruns, and enhance accountability. Societally, effective dissemination of evaluation findings supports public trust and participatory development by keeping communities and end-users informed and involved.

Limitations and Suggestions for Future Research

While the study offers valuable insights, it was limited to highway construction projects under the Kenya National Highways Authority (KeNHA), which may constrain the generalizability of the findings to other institutions or sectors. Moreover, the model explained 44.7% of the variation in project performance, suggesting that additional factors such as organizational capacity, political interference, or contractor experience may also play a role. Future research should expand the scope to include other actors in the highway construction ecosystem, such as the Kenya Rural Roads Authority (KeRRA) and private contractors. Further studies could also explore moderating or mediating variables, such as stakeholder engagement or institutional culture, to better understand the pathways through which dissemination influences performance.

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Competing Interest Statement

The authors declare that there is no conflict of interest. This research was conducted in the absence of any commercial or financial relationships, and the authors have no competing interests to disclose.

Author (s) Contribution Statement

Leonard Mue Musyoka contributed to the conception and design of the study, collected the data, and wrote the initial draft of the manuscript, including the introduction, literature review, methodology, and discussion sections. Reuben Wambua Kikwatha, Johnbosco Mutuku Kisimbi, and Anthony Wainaina Ndungu supervised the research process, contributed to refining the study design, and provided critical revisions to the manuscript. They also contributed to reviewing and editing the responses to reviewers' comments. All authors read and approved the final version of the manuscript for submission.

Informed Consent of the Participants

Informed consent was obtained from all participants prior to data collection.

Data Availability Statement

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

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