



STRATEGIC COMMUNICATION AND PERFORMANCE OF ROAD INFRASTRUCTURE PROJECTS IN NORTH EASTERN KENYA

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ABSTRACT

Road infrastructure remains a critical driver of economic growth, regional integration, and access to essential services. However, despite substantial investments in road infrastructure development, many projects continue to experience delays, cost overruns, poor quality outcomes, and implementation inefficiencies. The challenge is particularly pronounced in North Eastern Kenya, where inadequate road networks continue to constrain socio-economic development, limit access to markets and public services, and undermine regional connectivity. Although previous studies have examined factors influencing infrastructure performance, limited empirical attention has been given to the role of strategic communication in enhancing the performance of road infrastructure projects, particularly within marginalized and infrastructurally constrained regions. This study therefore examined the influence of strategic communication on the performance of road infrastructure projects in North Eastern Kenya. The study was anchored on Stakeholder Theory and Resource Dependency Theory and adopted a positivist research philosophy and an explanatory research design. The target population comprised 152 respondents drawn from project managers, contractors, government agencies, and other stakeholders involved in road infrastructure projects. Primary data were collected using structured questionnaires, yielding a response rate of 92.36%. Reliability and validity tests confirmed the adequacy of the research instrument, with the communication construct recording a Cronbach's alpha coefficient of 0.823 and an Average Variance Extracted value of 0.813. Descriptive statistics and binary logistic regression analysis were employed in data analysis. The findings revealed that communication channels, communication flow, and communication frequency were perceived to be effective in supporting project implementation. Further, strategic communication exerted a positive and statistically significant influence on road infrastructure performance ($B = 0.802$, $p = 0.001$, $OR = 2.230$), indicating that projects characterized by effective communication systems were more than twice as likely to achieve satisfactory performance outcomes compared to projects with weak communication practices. The study concludes that strategic communication is a critical strategic implementation capability that significantly enhances road infrastructure performance through improved stakeholder coordination, information sharing, and project execution. The study recommends the institutionalization of structured communication frameworks and stakeholder engagement mechanisms to improve the implementation and performance of road infrastructure projects.

KEYWORDS: Strategic Communication; Road Infrastructure Performance; Communication Channels; Communication Flow; Communication Frequency; Stakeholder Engagement; North Eastern Kenya.

1. INTRODUCTION

Infrastructure development has long been recognized as one of the most important catalysts of economic growth, social transformation, and national competitiveness. Among the various forms of infrastructure, road transport infrastructure occupies a uniquely strategic position because it serves as the primary mechanism through which economic activities, public services, and social interactions are connected across geographical spaces. Efficient road networks facilitate the movement of people, goods, services, and information, thereby enhancing market accessibility, reducing transaction costs, promoting regional integration, and stimulating economic productivity [1,2]. Consequently, investments in road infrastructure continue to attract significant attention from governments, development partners, and international financial institutions seeking to accelerate economic development and improve living standards. Globally, governments invest billions of dollars annually in the construction, rehabilitation, and maintenance of road infrastructure. According to international development agencies, transport infrastructure accounts for a substantial proportion of public development expenditure due to its multiplier effects on economic growth, trade facilitation, industrial development, agricultural productivity, and poverty reduction [3]. Countries characterized by efficient transport networks generally exhibit higher levels of economic competitiveness, stronger regional connectivity, improved access to public services, and greater resilience to economic shocks compared



to countries with poorly developed transport systems [4]. Consequently, road infrastructure has increasingly been viewed not merely as a physical asset but as a strategic enabler of sustainable development and national transformation.

Despite the acknowledged importance of road infrastructure, concerns regarding project performance continue to dominate both academic and policy discussions. Across both developed and developing countries, infrastructure projects frequently experience implementation challenges manifested through delays in completion, cost escalations, quality deficiencies, scope changes, stakeholder disputes, and failure to achieve intended developmental outcomes [5]. Empirical evidence suggests that a substantial proportion of large infrastructure projects exceed their original budgets and schedules, thereby diminishing expected economic returns and reducing public confidence in infrastructure investments [6]. Such challenges have generated increasing interest among scholars and practitioners seeking to identify organizational, managerial, and institutional factors capable of improving project performance.

The persistence of project underperformance is particularly concerning because infrastructure investments consume significant public resources and are expected to generate long-term socio-economic benefits. When projects fail to achieve expected outcomes, governments incur substantial financial losses while communities continue to experience inadequate access to essential services and economic opportunities [7]. Consequently, understanding the factors that contribute to successful project implementation has become a critical research and policy priority across the world.

One factor that has increasingly emerged as a critical determinant of project success is strategic communication. Contemporary infrastructure projects are characterized by high levels of complexity involving multiple stakeholders with diverse interests, expectations, responsibilities, and resource contributions. Government agencies, contractors, consultants, financiers, local communities, regulatory bodies, and development partners must continuously interact throughout the project lifecycle. The effectiveness of these interactions largely depends on the quality of communication systems established within the project environment [8]. Communication therefore transcends the traditional role of information dissemination and becomes a strategic managerial function that facilitates coordination, collaboration, stakeholder engagement, conflict resolution, decision-making, and accountability.

Project management scholars have consistently argued that communication constitutes the backbone of effective project implementation because virtually every project activity depends on the successful exchange of information among stakeholders [9]. Inadequate communication often results in misunderstandings, duplication of effort, delayed decision-making, stakeholder resistance, resource wastage, and implementation failures. Conversely, effective communication enhances transparency, promotes stakeholder participation, improves coordination, facilitates knowledge sharing, and supports timely problem-solving [10]. As infrastructure projects continue to increase in scale, complexity, and stakeholder diversity, strategic communication has become increasingly important in determining project outcomes.

However, despite the growing recognition of communication as a critical success factor, infrastructure projects across many developing countries continue to experience communication-related challenges. Weak stakeholder engagement, fragmented communication channels, delayed information flows, limited feedback mechanisms, and poor coordination among project actors remain common features of many public infrastructure projects [11]. These deficiencies often undermine project implementation and contribute to persistent performance challenges. The situation is particularly evident in Sub-Saharan Africa where institutional capacity constraints, governance challenges, resource limitations, and geographical barriers frequently complicate infrastructure project implementation [12].

2. THEORETICAL FOUNDATION

2.1 Stakeholder Theory

This study was anchored on Stakeholder Theory, which was advanced by Freeman in 1984 to explain how organizational success is influenced by the management of relationships among stakeholders. The theory challenges the traditional view that organizations exist primarily to maximize shareholder value and instead argues that long-term success depends on the ability of organizations to recognize, engage, and respond to the interests of multiple stakeholder groups. Stakeholders include any individual or group that can affect or be affected by the achievement of organizational objectives, such as employees, customers, suppliers, regulators, financiers, communities, and government agencies [13].

The central proposition of Stakeholder Theory is that organizational effectiveness is enhanced when stakeholders are actively engaged through mechanisms that promote participation, information sharing, trust, collaboration, and mutual understanding [14]. Effective communication therefore occupies a central position within the theory because it provides the means through which stakeholder relationships are established, maintained, and strengthened. Through communication, organizations are able to clarify expectations, address concerns, coordinate activities, resolve conflicts, and build consensus around common objectives [15].



The relevance of Stakeholder Theory to infrastructure project implementation is particularly evident because road infrastructure projects are characterized by a multiplicity of stakeholders whose interests, expectations, and responsibilities often differ. Such stakeholders include government agencies, contractors, consultants, development partners, local communities, regulatory authorities, and road users. The successful implementation of road infrastructure projects depends on the ability of these stakeholders to interact effectively and coordinate their activities throughout the project lifecycle [16]. In this context, strategic communication becomes an essential mechanism for facilitating stakeholder engagement and ensuring that project objectives are aligned with stakeholder expectations.

Road infrastructure projects frequently operate in dynamic environments where stakeholder interests may conflict and project decisions may have significant social, economic, and environmental implications. Under such circumstances, ineffective communication can create misunderstandings, weaken stakeholder support, generate resistance, and ultimately compromise project performance. Conversely, effective communication fosters transparency, accountability, trust, and collaboration, thereby enhancing project implementation and performance outcomes [17]. Stakeholder Theory therefore provides a useful lens for understanding how communication channels, communication flow, and communication frequency influence the performance of road infrastructure projects. Despite its widespread application, Stakeholder Theory has been criticized for offering limited guidance on how organizations should prioritize competing stakeholder interests when stakeholder expectations conflict. Critics argue that the theory assumes that stakeholder interests can be harmonized through engagement and communication, yet in practice resource constraints and competing priorities may make such harmonization difficult to achieve [18]. Nevertheless, the theory remains highly relevant to this study because it highlights the importance of communication in facilitating stakeholder engagement and enhancing project performance.

2.2 Resource Dependency Theory

Resource Dependency Theory was developed by Pfeffer and Salancik in 1978 to explain how organizational performance is influenced by dependence on resources controlled by external actors. The theory argues that organizations are unable to generate all the resources required for their operations internally and must therefore establish relationships with external stakeholders who possess critical resources necessary for organizational survival and success [19]. Such resources may include financial capital, information, technology, expertise, regulatory approvals, political support, and social legitimacy.

The theory emphasizes that organizations operate within interdependent environments characterized by uncertainty and resource constraints. Consequently, managers must develop strategies that enable organizations to secure access to critical resources while minimizing environmental uncertainty and dependence [20]. Communication plays a central role in this process because it facilitates information exchange, relationship building, negotiation, coordination, and collaboration among stakeholders. Through effective communication, organizations are able to mobilize resources, build strategic alliances, and secure stakeholder support necessary for achieving organizational objectives.

The applicability of Resource Dependency Theory to road infrastructure projects is particularly significant because infrastructure development is inherently resource-intensive and requires the coordinated involvement of multiple stakeholders. Government agencies provide policy direction and funding, contractors contribute technical expertise and implementation capacity, consultants offer professional guidance, development partners provide financial and technical support, while local communities contribute social acceptance and legitimacy [21]. The successful implementation of road infrastructure projects therefore depends on the ability of project stakeholders to coordinate their efforts and effectively utilize available resources.

Strategic communication facilitates this coordination by enabling stakeholders to exchange information, align expectations, share knowledge, and mobilize resources necessary for project implementation. Effective communication reduces uncertainty, minimizes information asymmetry, strengthens stakeholder commitment, and improves the efficiency with which project resources are utilized [22]. Conversely, communication breakdowns may delay resource mobilization, create misunderstandings, increase implementation risks, and compromise project performance. Resource Dependency Theory therefore provides a strong theoretical explanation for the relationship between strategic communication and road infrastructure performance.

Notwithstanding its usefulness, the theory has been criticized for placing excessive emphasis on external environmental factors while giving limited attention to internal organizational capabilities that may also influence performance. Scholars have argued that organizations possess internal resources and competencies that may reduce their dependence on external actors [23]. Despite this limitation, Resource Dependency Theory remains appropriate for the current study because it highlights the importance of communication in facilitating stakeholder coordination and resource mobilization within complex project environments.



2.3 Theoretical Synthesis and Study Proposition

Stakeholder Theory and Resource Dependency Theory collectively provide a comprehensive explanation of how strategic communication influences road infrastructure performance. Stakeholder Theory emphasizes the role of communication in promoting stakeholder engagement, participation, trust, and collaboration, while Resource Dependency Theory highlights the importance of communication in facilitating information exchange, resource mobilization, coordination, and environmental adaptation. Together, the two theories suggest that effective communication systems enhance stakeholder relationships and improve access to critical project resources, thereby increasing the likelihood of successful project implementation.

Drawing from these theoretical perspectives, the study conceptualized strategic communication as a multidimensional construct comprising communication channels, communication flow, and communication frequency. It was posited that effective communication channels facilitate information dissemination, efficient communication flow enhances coordination among project stakeholders, and appropriate communication frequency supports continuous stakeholder engagement and timely decision-making. Consequently, improvements in strategic communication were expected to enhance the performance of road infrastructure projects through improved stakeholder coordination, resource utilization, project monitoring, and implementation effectiveness.

The theoretical proposition underpinning this study was therefore that strategic communication positively influences the performance of road infrastructure projects. The two theories collectively provide the foundation for explaining why projects characterized by effective communication systems are more likely to achieve satisfactory performance outcomes than projects characterized by weak communication practices.

3. EMPIRICAL REVIEW

Strategic communication has emerged as one of the most frequently cited determinants of project performance in contemporary project management literature. The growing complexity of infrastructure projects, coupled with increasing stakeholder diversity, has elevated communication from a routine administrative activity to a strategic capability that influences project coordination, stakeholder engagement, decision-making, resource utilization, and implementation effectiveness [24]. Consequently, scholars have increasingly sought to establish the extent to which communication practices contribute to successful project outcomes.

Existing empirical evidence generally supports the proposition that effective communication enhances project performance. Studies conducted across construction, transport, energy, and public infrastructure sectors consistently report positive associations between communication effectiveness and indicators of project success, including timely completion, cost control, quality achievement, stakeholder satisfaction, and implementation efficiency [4,5,8]. These findings suggest that communication facilitates the alignment of stakeholder expectations and promotes coordinated action among project actors. However, despite broad agreement regarding the importance of communication, considerable variation exists regarding the communication dimensions that exert the greatest influence on project outcomes.

One stream of literature emphasizes the importance of communication channels in enhancing project performance. Proponents argue that clearly defined communication channels improve information dissemination, reduce ambiguity, enhance transparency, and strengthen accountability among project stakeholders [4,5]. Studies conducted in transport and construction projects have generally reported positive relationships between communication channels and project success. Nevertheless, most of these studies were undertaken in highly institutionalized environments characterized by relatively advanced communication infrastructure and strong project governance systems. Consequently, the transferability of such findings to geographically dispersed and infrastructurally constrained regions remains uncertain. Furthermore, many studies have treated communication channels as a unidimensional construct without examining how different communication mechanisms influence project performance under varying contextual conditions.

A second body of literature focuses on communication flow as a determinant of project performance. Empirical evidence suggests that effective communication flow enhances coordination, facilitates timely decision-making, improves responsiveness to implementation challenges, and strengthens stakeholder participation [6,7]. However, findings regarding the magnitude of this influence remain inconsistent. While some studies report communication flow as a strong predictor of project success, others identify organizational structure, leadership, and resource availability as more influential determinants. These inconsistencies may be attributable to differences in project environments, stakeholder configurations, and methodological approaches employed by researchers. In addition, many studies have focused on general construction projects rather than road infrastructure projects specifically, thereby limiting the contextual relevance of their findings.

Communication frequency has also attracted considerable scholarly attention. Existing studies generally suggest that frequent communication enhances project monitoring, facilitates feedback, improves stakeholder engagement, and supports effective project



control [8,9]. Nevertheless, empirical evidence indicates that communication frequency alone does not guarantee project success. Some scholars argue that excessive communication may generate information overload, increase coordination costs, and create inefficiencies if communication quality and relevance are not adequately managed. This suggests that communication effectiveness depends not only on how often stakeholders communicate but also on the quality, clarity, and strategic relevance of the information exchanged. Such findings highlight the need for a more nuanced understanding of communication practices within infrastructure project environments.

Within the African context, empirical studies generally support the positive influence of communication on infrastructure project performance [12,13]. However, much of the available evidence originates from relatively urbanized settings and focuses on general infrastructure or construction projects. Limited attention has been devoted to road infrastructure projects operating in marginalized regions characterized by infrastructural deficits, geographical dispersion, security challenges, and limited communication networks. As a result, existing findings may not adequately explain communication dynamics within such contexts.

Similarly, studies conducted in Kenya have reported positive associations between communication practices and infrastructure project outcomes [15,16]. However, these studies exhibit several limitations. First, most have concentrated on county development projects, building construction projects, or public sector programmes rather than road infrastructure projects. Second, communication has frequently been examined as a general project management practice without disaggregating it into communication channels, communication flow, and communication frequency. Third, existing studies have largely focused on urban and peri-urban settings, leaving limited empirical evidence regarding infrastructure projects implemented in geographically remote regions such as North Eastern Kenya.

The reviewed literature demonstrates broad consensus regarding the importance of communication in project implementation. However, significant empirical, methodological, and contextual gaps remain. Empirically, limited evidence exists regarding the influence of strategic communication on road infrastructure performance in North Eastern Kenya. Methodologically, previous studies have rarely examined communication as a multidimensional construct comprising communication channels, communication flow, and communication frequency. Contextually, the unique socio-economic and infrastructural characteristics of North Eastern Kenya remain largely underrepresented in existing scholarship. The present study sought to address these gaps by examining the influence of strategic communication on the performance of road infrastructure projects in North Eastern Kenya.

4. MATERIALS AND METHODS

4.1 Research Philosophy

The study was guided by the positivist research philosophy. Positivism assumes that social phenomena can be objectively observed, measured, and analyzed using scientific methods to establish causal relationships among variables [25]. The philosophy was considered appropriate because the study sought to examine the influence of strategic communication on the performance of road infrastructure projects using quantifiable data and statistical techniques. Positivism further emphasizes objectivity, empirical measurement, hypothesis testing, and generalization of findings, which were consistent with the objectives of the study.

4.2 Research Design

The study adopted an explanatory research design. Explanatory research is suitable where the objective is to establish causal relationships between independent and dependent variables and explain how variations in one variable influence variations in another [26]. The design was considered appropriate because the study sought to determine the influence of strategic communication on the performance of road infrastructure projects in North Eastern Kenya. The design enabled the researcher to test the study hypothesis and establish the magnitude and direction of the relationship between the study variables.

4.3 Study Area

The study was conducted in North Eastern Kenya, a region comprising Garissa, Wajir, and Mandera counties. The region occupies a strategic position within Kenya due to its proximity to neighboring countries and its importance in promoting regional trade and integration. Despite recent investments in infrastructure development, the region continues to experience significant road infrastructure challenges, including inadequate road connectivity, limited accessibility, and implementation constraints associated with geographical dispersion, security concerns, and infrastructural deficits. These characteristics make the region an appropriate context for examining factors influencing the performance of road infrastructure projects.

4.4 Target Population

The target population comprised 152 respondents drawn from key stakeholders involved in road infrastructure projects in North Eastern Kenya. These stakeholders included project managers, resident engineers, contractors, consultants, county government officials, officials from road agencies, and representatives of project beneficiary communities. The selected respondents were considered suitable because



they possessed direct knowledge and experience regarding the implementation and performance of road infrastructure projects within the study area.

4.5 Data Collection

The study utilized primary data collected through structured questionnaires. The questionnaire was designed to capture respondents' perceptions regarding strategic communication and road infrastructure performance. Strategic communication was operationalized using three dimensions, namely communication channels, communication flow, and communication frequency. Responses were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Prior to data collection, the research instrument was subjected to pilot testing to assess clarity, relevance, and reliability. Necessary modifications were made based on feedback obtained during the pilot study. The final questionnaire was then administered to the selected respondents to obtain data for analysis.

4.6 Reliability and Validity of the Research Instrument

The reliability of the research instrument was assessed using Cronbach's alpha coefficient. Cronbach's alpha values of 0.70 and above are generally considered acceptable for social science research [27]. The strategic communication construct recorded a Cronbach's alpha coefficient of 0.823, indicating satisfactory internal consistency and reliability of the measurement items.

Construct validity was assessed using the Average Variance Extracted (AVE) criterion. AVE values exceeding 0.50 indicate that the measurement items adequately capture the intended construct [28]. The strategic communication construct recorded an AVE value of 0.813, demonstrating satisfactory convergent validity.

4.7 Measurement of Study Variables

The independent variable was strategic communication, conceptualized through three dimensions: communication channels, communication flow, and communication frequency. The dependent variable was road infrastructure performance.

Descriptive analysis of communication indicators was based on frequencies, percentages, and modal values. The mode was preferred to the mean because the communication indicators were measured using five-point Likert-scale items, which generate ordinal data. Unlike means, which assume equal intervals between response categories, the mode identifies the most frequently occurring response category and therefore provides a more appropriate measure of central tendency for ordinal data [29,30].

For inferential analysis, composite scores were computed and subsequently recoded into binary categories to facilitate logistic regression analysis. Composite scores ranging from 7 to 21 represented low strategic communication, while scores ranging from 22 to 35 represented high strategic communication. Similarly, road infrastructure performance was recoded into satisfactory and unsatisfactory performance categories.

4.8 Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 30. Descriptive statistics comprising frequencies, percentages, and modal values were used to summarize respondents' perceptions regarding strategic communication. Inferential analysis was undertaken using binary logistic regression because the dependent variable was binary in nature.

The binary logistic regression model estimated the probability of satisfactory road infrastructure performance as a function of strategic communication. The binary logistic regression model was specified as:

$$\text{Ln}(\text{Pi} / 1 - \text{Pi}) = \beta_0 + \beta_1 \text{SC} \dots\dots\dots (1)$$

Where:

Pi = Probability of satisfactory road infrastructure performance

SC = Strategic Communication

β_0 = Constant (intercept)

β_1 = Logistic regression coefficient associated with strategic communication

The statistical significance of the model was assessed at the 5 percent level of significance. Odds ratios were used to interpret the likelihood of achieving satisfactory project performance associated with improvements in strategic communication.

4.9 Ethical Considerations

The study adhered to established ethical principles governing social science research. Permission to conduct the study was obtained from relevant authorities prior to data collection. Participation in the study was voluntary and respondents were informed of the purpose



of the research before providing consent. Confidentiality and anonymity of respondents were maintained throughout the study, and information collected was used solely for academic purposes. Data were securely stored and accessed only by authorized persons involved in the research process.

5. RESULTS AND DISCUSSION

Prior to hypothesis testing, the adequacy of the data and measurement scales was assessed. Out of the 152 questionnaires administered, 140 were successfully completed and returned, representing a response rate of 92.36 percent. The response rate exceeded the minimum threshold recommended for survey research and was therefore considered adequate for statistical analysis [25].

The reliability and validity of the strategic communication construct were also assessed. The construct recorded a Cronbach's alpha coefficient of 0.823 and an Average Variance Extracted (AVE) value of 0.813, exceeding the recommended thresholds of 0.70 and 0.50 respectively [26,27]. These results confirmed that the measurement items possessed satisfactory internal consistency and convergent validity and were therefore suitable for subsequent analysis.

5.1 Strategic Communication and Road Infrastructure Performance

Descriptive analysis was undertaken to examine respondents' perceptions regarding strategic communication. Since the communication indicators were measured using five-point Likert-scale items, frequencies, percentages, and modal values were used to summarize the responses. The mode was preferred to the mean because Likert-scale responses generate ordinal data and the mode provides a more appropriate measure of central tendency by identifying the most frequently occurring response category [28,29].

Table 1
Descriptive Statistics for Strategic Communication

Dimension	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mode
Communication Channels	The communication channels used in my organization are efficient.	1.5	5.3	4.5	58.6	30.1	4
	Multiple communication channels are effectively used in my organization.	1.5	7.5	6.8	64.7	19.5	4
	Communication channels are clearly defined and understood by stakeholders.	2.3	4.5	12.8	51.9	28.6	4
Communication Flow	Information flows smoothly among all project stakeholders.	2.3	6.0	12.8	47.4	31.6	4
	Communication flow is well organized and systematic.	0.0	6.0	12.8	47.4	33.8	4
	There are minimal delays in communication among project teams.	2.3	6.8	12.0	54.1	24.8	4
Communication Frequency	Communication occurs frequently enough to meet project needs.	2.3	3.0	12.0	54.9	27.8	4
	Communication frequency is sufficient to support timely task completion.	1.5	6.0	10.5	57.9	24.1	4
	There is regular communication between management and project teams.	0.0	3.8	13.5	57.1	25.6	4

The findings indicate that respondents generally agreed that communication channels, communication flow, and communication frequency were effective in supporting road infrastructure project implementation. All indicators recorded a modal value of four (Agree), suggesting that the dominant perception among respondents was that communication systems within road infrastructure projects were functioning effectively. The findings imply that project stakeholders had access to clearly defined communication channels, efficient information flow mechanisms, and regular communication processes that facilitated coordination and implementation activities.

These findings are consistent with previous studies which reported that effective communication enhances stakeholder engagement, improves project coordination, facilitates information sharing, and contributes to successful project implementation [4,5,6,8]. The findings further support Stakeholder Theory, which emphasizes the importance of communication in promoting stakeholder participation and collaboration, and Resource Dependency Theory, which highlights the role of communication in facilitating coordination and resource mobilization among project stakeholders [13,19].

To establish whether strategic communication significantly influenced road infrastructure performance, binary logistic regression analysis was conducted. The Omnibus Test of Model Coefficients was statistically significant ($p < 0.05$), indicating that the model



provided a better fit than the null model. The Hosmer-Lemeshow goodness-of-fit test was not statistically significant ($p > 0.05$), suggesting that the model adequately fitted the data. Further, the model summary statistics indicated satisfactory explanatory power, confirming the suitability of the model for hypothesis testing.

Table 2

Binary Logistic Regression Results for Strategic Communication and Road Infrastructure Performance

Variable	Category	β	S.E.	Wald	p-value	Odds Ratio
Strategic Communication	Weak Strategic Communication Practices (RC)	—	—	—	—	1.000
	Strong Strategic Communication Practices	0.802	0.244	10.830	0.001	2.230

Dependent Variable: Road Infrastructure Performance (0 = Unsatisfactory Performance; 1 = Satisfactory Performance)

RC = Reference Category

The binary logistic regression results presented in Table 2 indicate that strategic communication exerted a positive and statistically significant influence on road infrastructure performance ($\beta = 0.802$, $p = 0.001$). The positive coefficient suggests that improvements in strategic communication increased the likelihood of achieving satisfactory road infrastructure performance. Specifically, projects characterized by strong strategic communication practices were 2.23 times more likely to achieve satisfactory performance outcomes than projects characterized by weak strategic communication practices.

The findings suggest that effective communication channels, efficient communication flow, and appropriate communication frequency enhance stakeholder coordination, facilitate information exchange, improve decision-making, and strengthen project implementation processes. These communication practices enable project stakeholders to develop a common understanding of project objectives, coordinate activities effectively, address implementation challenges in a timely manner, and minimize conflicts that may undermine project performance.

The findings are consistent with previous empirical studies which established that strategic communication contributes significantly to project success by enhancing stakeholder engagement, improving coordination, strengthening accountability, and facilitating efficient project execution [4,5,6,8]. The results further support Stakeholder Theory, which emphasizes the role of communication in fostering stakeholder participation and collaboration, and Resource Dependency Theory, which views communication as a critical mechanism for coordinating stakeholders and mobilizing resources required for successful project implementation [13,19].

The study therefore rejects the null hypothesis that strategic communication has no statistically significant influence on the performance of road infrastructure projects in North Eastern Kenya. The findings provide empirical evidence that strengthening strategic communication practices can significantly improve the performance of road infrastructure projects.

6. CONCLUSION AND IMPLICATIONS

This study examined the influence of strategic communication on the performance of road infrastructure projects in North Eastern Kenya. The findings established that strategic communication exerts a positive and statistically significant influence on road infrastructure performance. Specifically, projects characterized by strong strategic communication practices were significantly more likely to achieve satisfactory performance outcomes than projects characterized by weak strategic communication practices. The findings demonstrate that effective communication channels, efficient communication flow, and appropriate communication frequency enhance stakeholder coordination, facilitate information sharing, strengthen decision-making processes, and support successful project implementation.

The study contributes to the growing body of knowledge on infrastructure project management by providing empirical evidence on the role of strategic communication in improving road infrastructure performance within a geographically marginalized and infrastructurally constrained context. The findings further extend the applicability of Stakeholder Theory and Resource Dependency Theory by demonstrating that communication serves as a critical mechanism through which stakeholders coordinate activities, mobilize resources, and align their efforts toward the achievement of project objectives.

From a practical perspective, the findings underscore the need for road agencies, project managers, contractors, and other stakeholders to institutionalize structured communication systems throughout the project lifecycle. Strengthening communication practices may improve stakeholder engagement, reduce implementation inefficiencies, enhance accountability, and ultimately contribute to improved infrastructure performance.



The study was limited to road infrastructure projects in North Eastern Kenya and focused exclusively on strategic communication as a predictor of project performance. Future studies may examine the influence of strategic communication in other infrastructure sectors and geographical contexts, as well as explore the role of emerging digital communication technologies in enhancing project implementation and performance.

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