MODERATING EFFECT OF CORPORATE GOVERNANCE ON THE RELATIONSHIP BETWEEN STRATEGY IMPLEMENTATION AND THE PERFORMANCE OF ROAD PROJECTS BY KENYA RURAL ROADS AUTHORITY

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ABSTRACT

The purpose of the study is to establish whether corporate governance moderates the relationship between strategy implementation and the performance of road projects by Kenya Rural Roads Authority. The study employs a multi-theoretical approach, integrating Resource-Based Theory, Agency Theory, Contingency Theory of Leadership, Legitimacy Theory, Theory of Constraints, Enterprise Risk Management, Technology Acceptance Model, and Communication Theory. The study utilized a mixed-methods approach, with pragmatism as the chosen research philosophy. The study focused on 140 Development Road Projects by KeRRA. The sample comprised 208 individuals, including 104 Strategy Implementation Officers (SIOs) and 104 Contractors' Chief Executive Officers (CEOs). This was determined using the Solvin 1974 formula due to authority duality. The Director General of KeRRA and the Secretary to the Board of Directors were also part of the target population. The research employed a mixed-methods approach, utilizing a sequential explanatory design to investigate the relationship between governance practices, technology adoption, resource availability, communication, and road project outcomes at the Kenya Rural Roads Authority (KeRRA). Data collection involved questionnaires and interviews with strategy implementation officials and the Director General, utilizing cluster, stratified, and deliberate sampling for both qualitative and quantitative data. Statistical analyses, including Pearson correlation and regression analysis were performed on SPSS Version 27. The study revealed that corporate governance practices have a statistically significant moderating effect on the influence of strategy implementation on the performance of road projects by Kenya Rural Roads Authority.

Key Words: Corporate Governance, Kenya Rural Roads Authority, Performance of Road Projects, Strategy Implementation

INTRODUCTION

Road infrastructure is a fundamental component of economic growth and development worldwide, facilitating the movement of goods, services, and people, and fostering trade and regional integration. Its significance extends to accelerating commercial and residential sector growth, providing individuals access to marketplaces, government services, and the broader world (Mashwama, Mushatu & Aigbavboa, 2018). Notably, road projects in developing countries have demonstrated considerable improvements in performance, with average cost overruns decreasing from 35% in the 1990s to 18% in the 2010s, as evidenced by data from over 600 projects across 97 countries (World Bank, 2020). Strategy implementation is pivotal for the success of these projects, ensuring efficient resource allocation, adherence to best practices, and goal achievement. Stakeholder engagement, risk management, and performance measurement are highlighted as key components of strategy implementation by the United Nations Economic Commission for Europe (UNECE) and the World Bank, emphasizing the importance of effective project management practices to ensure timely, budget-compliant, and quality road project completion (UNECE, 2020; World Bank, 2019).

Furthermore, sustainability considerations are paramount in road project planning and implementation, necessitating the assessment of social, economic, and environmental impacts. The International Monetary Fund (IMF) underscores the importance of incorporating sustainability principles, advocating for the use of performance indicators, risk assessment, and stakeholder engagement to promote sustainable road construction practices and address stakeholders' needs (IMF, 2018). Studies in African nations like Ghana, Nigeria, and Kenya emphasize the critical role of effective project planning, implementation, stakeholder engagement, and risk management in the success of road infrastructure initiatives (Osei-Kyei & Chan, 2015; Oladapo et al., 2017; Kigera & K'Obonyo, 2016). These findings underscore the significance of strategy implementation in fostering economic development and combating poverty in African countries, aligning with the priorities outlined by the UNECA, IMF, and World Bank (UNECA, 2019; IMF, 2018; World Bank, 2020).

Project Performance of Road Projects

Numerous international studies have analyzed road project performance globally, revealing critical factors influencing success. Ismail et al. (2020) highlighted inadequate planning, management, and construction quality as key issues in Malaysia. Sub-Saharan Africa, China, and India are prominent in road infrastructure development, with China's use of technology and India's challenges due to poor management and financing (Ayed & Albadri, 2021; Singh & Sharma, 2022). Asian infrastructure projects face heightened risks, particularly in rail, due to complexity (Andrić et al., 2019). African road projects, though facing challenges like cost overruns, have fared relatively well, emphasizing the need for effective planning and management strategies (Mushato et al., 2020).

Effective strategy implementation is vital in construction projects, involving strategic planning, project management, resource allocation, and risk management (Shen et al., 2020). Road construction, crucial for national development, relies on strategic implementation encompassing planning, resource allocation, risk management, and stakeholder engagement (Liu & Chen, 2020). Inadequate strategy implementation leads to delays and cost overruns, emphasizing the need for robust strategic management practices (Brixi et al., 2018; Makule & Ismail, 2020). Al-Fadhli et al. (2021) highlight strategic planning and project management's role in enhancing project quality, reducing delays, and improving stakeholder communication, emphasizing strategy implementation's critical importance for project success.

Studies in various African countries corroborate the importance of strategy implementation in road project performance. In Ghana, effective strategy implementation, including clear project vision, planning, stakeholder engagement, and risk management, is deemed essential for project success (Asare, Agyapong, & Owusu, 2021). Similarly, Adzimah, Adjei, and Dzokoto (2022) emphasize the significance of project planning, resource allocation, and stakeholder engagement in managing projects and ensuring success. Indicators of successful strategy implementation in road projects include project planning, risk management, stakeholder management, and resource allocation (Fawzy et al., 2016). Abdullahi et al. (2021) and Olomolaiye et al. (2019) also highlight the positive association between effective strategy implementation and road project success, emphasizing elements like goal setting, risk management, and stakeholder engagement. In Uganda, Kavuma (2019) underscores the importance of strategic planning, resource allocation, and stakeholder engagement in improving the quality, timeliness, and cost-effectiveness of road construction projects, showcasing the universal relevance of strategy implementation in enhancing project performance.

Corporate Governance and the relationship between Strategy implementation and Performance of Road Projects

Corporate governance significantly influences the performance and outcomes of organizations, particularly in infrastructure projects like road construction, where transparency, accountability, and ethical conduct are increasingly emphasized (Guluma, 2021; Fei et al., 2021). In Africa, including Kenya, robust corporate governance practices are crucial for successful project implementation and achieving desired outcomes in the context of infrastructure development, which serves as a vital driver of economic growth and social progress (Kahoro, 2018). Factors such as board oversight, risk management, transparency, accountability, stakeholder engagement, and ethical considerations play key roles in shaping the relationship between corporate governance, strategy implementation, and project performance (Bernat et al., 2023). Indicators like board independence, accountability, CEO duality, and audit committee independence are used to measure corporate governance, with studies indicating a positive relationship between transparency disclosure and financial performance (Bui & Krajcsák, 2024). Ongoing research aims to explore the moderating effect of corporate governance on the relationship between strategy

implementation and road project performance, offering insights into how governance practices influence project outcomes in the infrastructure sector, particularly within organizations like the Kenya Rural Roads Authority.

Performance of Road Development Projects in Kenya

Research by Mwathi and Mwenda (2017) highlights Kenya's infrastructure sector's significant challenge: poor road project performance. Their study of 20 road projects across the country revealed common issues such as delays, cost overruns, and inadequate stakeholder engagement. This was corroborated by the Kenya National Highways Authority (2019), which attributed project delays and budget overruns to corruption, inadequate funding, and weak management. The African Development Bank (2018) further emphasized institutional weaknesses and poor project preparation as hindrances to project success. The Kenya Rural Roads Authority (2021) faces resource constraints and planning challenges in implementing rural road projects, with limited research exploring the link between project performance, leadership styles, and strategy execution.

STATEMENT OF THE PROBLEM

Ideally, strategy implementation is supposed to enhance performance of road projects. Despite the employment of strategy implementation, poor performance of road projects by KeRRA remains evident and an unresolved issue, thus, casting aspersions as to the connection between road project performance and strategy implementation. Kenya's recent economic growth has outpaced its infrastructure development, notably in the critical area of road networks. The country faces challenges in road conditions and infrastructure inadequacy, impeding economic progress and social mobility. The World Bank emphasizes the urgent need for attention to Kenya's road network due to insufficient maintenance, resulting in accidents and increased travel time. The responsibility for rural road administration lies with the Kenya Rural Roads Authority (KeRRA), but it contends with challenges like funding shortages, lack of skilled personnel, ineffective strategy implementation, and poor project performance. Research highlights that ineffective road construction project management leads to significant delays and cost overruns (Nyangoto & Nyang'au, 2022). Criticisms of KeRRA's poor performance include low-quality road construction, necessitating frequent repairs and maintenance. This has resulted in increased costs to taxpayers and inconvenience to road users. KeRRA has been accused of delaying the completion of road projects, which in turn leads to increased costs and inconvenience to road users. Some projects have also been abandoned midway due to poor planning and inadequate funding. For example, the failure of the World Bank financed Kakamega-Webuye road project (Ogweno, et al.2018). Poorly constructed roads, unmarked lanes, and a lack of signage in some locations are contributing to accidents, some of which are fatal (Kamau, 2022). These raise questions related to what strategy implementation is in place and their relationship to the performance of these projects. This remains unclear and provides a grounding for this study. Past studies reveal a correlation between strategy implementation and road project performance in the USA, Poland, and Pakistan. However,

geographical variations and methodological weaknesses, like incomplete data and case study approaches, restrict generalizability. Therefore, further research is needed to explore the relationship between these factors and the performance of road projects in the Kenya Rural Roads Authority, which can help identify areas for improvement and enhance the implementation of road projects in the country.

Purpose of the Study
The purpose of the study was to examine whether corporate governance practices moderate the relationship between strategy implementation and the performance of road projects by Kenya Rural Roads Authority

RESEARCH HYPOTHESIS
H_{O1} Corporate governance practices have no statistically significant moderating effect on the influence of strategy implementation on the performance of road projects by Kenya Rural Roads Authority.

LITERATURE REVIEW
Theoretical Review
The Agency Theory
Jensen and Meckling (1976) introduced the Agency Theory, which suggests that the separation of ownership and control in a corporation leads to a natural conflict of interest between shareholders (principals) and management (agents). Corporate governance practices such as board independence, accountability, and size can mitigate this conflict, aligning the interests of principals and agents and improving business performance. Studies by Abor and Bokpin (2010), Bello and Adewale (2016), and Mokhtar et al. (2019) have explored the relationship between corporate governance and firm performance using this theory. In the context of the Kenya Rural Roads Authority's road projects, Agency Theory can elucidate how corporate governance practices influence project outcomes. For instance, board independence and accountability ensure effective oversight, while audit committee independence guarantees financial reporting accuracy. Moreover, leadership styles, influenced by corporate governance, impact project performance, with transformational leadership fostering employee motivation and commitment, leading to better outcomes.

Resource Based Theory
Jay Barney's Resource-Based Theory (RBT) has been instrumental in shaping strategic planning, particularly by emphasizing the importance of valuable, rare, and non-substitutable resources in achieving competitive advantage (Barney, 2007). According to Barney (1991), a company's internal resources and competencies determine its superior performance and competitive edge, highlighting the significance of managing resources effectively. For the Kenya Rural Roads

Authority (KeRRA), effective resource management, including technology, governance, planning, and leadership, can significantly influence road project performance. RBT underscores the importance of resource availability in project execution, suggesting that access to unique, valuable, and rare resources can lead to sustained competitive advantage (Wernerfelt, 1984). Additionally, the theory emphasizes the need for resource heterogeneity and immobility, implying that leveraging resources effectively is essential for achieving superior performance (Barney, 1991). Therefore, applying RBT in analyzing the relationship between resource availability and project performance can offer valuable insights for KeRRA, aiding in leveraging its unique resources to achieve sustained competitive

Theory of Constraints
The Theory of Constraints (TOC), developed by Goldratt in 1984, forms the theoretical basis of this study, highlighting the limitations hindering systems from achieving their objectives (Jacob & McClelland, 2001). Constraints, originating from various stages such as conceptualization, control, production, and logistics, define a system's output, urging top management to identify effective means of reducing these restrictions within the company. In the context of road construction projects by KeRRA, constraints like inadequate resources, poor management, and technical expertise hinder project performance, leading to inefficiencies and delays (Jacob & McClelland, 2001). TOC serves the study's objectives by identifying constraints in corporate governance, technology adoption, resource availability, and communication, offering practical solutions to mitigate these limitations and enhance project performance (Jacob & McClelland, 2001). For instance, constraints in decision-making processes or technology adoption can be addressed through better governance practices or training initiatives, respectively, aiding KeRRA in achieving its road project objectives..

Theory of Enterprise Risk Management
A framework called "Enterprise Risk Management" (ERM) by Nocco and Stulz conceptualized in 2006 is designed to help project managers control all risks in a methodical and consistent manner. The culture, procedures, and organizational frameworks that are focused on the efficient control of negative effects and potential opportunities are referred to as risk management (Jankensgård 2019). An organization's performance can be enhanced by effective risk management, which adds value to the company by enhancing service delivery, managing change effectively, using resources effectively, managing projects more effectively, reducing waste and fraud, and fostering innovation. Consequently, enterprise risk management aims at ensuring that the organization continues to add value in the face of uncertainty.

When dealing with uncertain project events, leaders save money if they take proactive measures to reduce the likelihood of threats and take advantage of any opportunities that may arise (Jankensgård 2019). The ERM theory is crucial to this study because risk-resilient organizations must adopt sustainable risk management practices, evaluate their organizational cultures regarding

risk, performance, and reward, and objectively assess their current risk management capabilities. According to the theory, project risk management affects how well road projects perform in Kenya.

ERM can help identify and manage risks related to corporate governance practices, such as inadequate oversight or ineffective management structures. By applying ERM principles, the study can determine the effectiveness of the corporate governance practices of the Kenya Rural Roads Authority and their impact on the performance of road projects. Technology adoption involves taking on new systems or processes that can bring about new risks. ERM can help identify these risks and establish appropriate mitigation strategies. The study can apply ERM principles to identify risks associated with technology adoption in road projects and determine the extent to which the risks have been addressed.

ERM can help to identify and manage risks associated with resource availability, such as funding, staff, or materials. By applying ERM principles, the study can assess how effectively the Kenya Rural Roads Authority is managing the risks associated with resource availability and determine their impact on road project performance. ERM can help to identify and manage risks associated with communication breakdowns, such as inadequate communication channels or ineffective communication methods. By applying ERM principles, the study can assess how effectively the Kenya Rural Roads Authority is managing the risks associated with communication and determine their impact on road project performance.

EMPIRICAL REVIEW
Corporate Governance Practices and Performance of Road Projects
Bello et al. (2019) examined how corporate governance affects road project performance in the USA. They analyzed data from 57 projects by state transportation authorities, focusing on board independence, CEO tenure, and audit committee independence. Better project outcomes were linked to these factors, emphasizing the need for improved governance procedures to enhance performance.

Gonzalez-Navarro and Simpson (2021) found a positive correlation between corporate governance and road infrastructure investments in Mexico. Similarly, Baez-Camargo, Landa-Silva, and Ruiz-Vanoye (2021) highlighted the connection between governance and project success in Mexican road construction. Chou and Chiu (2022) also emphasized the importance of corporate governance, particularly board diversity, in project success, underlining its significance for investment and performance in road projects.

Research by Dang (2019) suggests that independent boards lead to fair decisions, reducing corruption and improving road project outcomes. Zhang & Zhang (2018) noted the benefits of board responsibility, while Gifford & Gifford (2021) highlighted the contextual importance of board size. Chen et al. (2020) and Li et al. (2022) emphasized the positive impact of CEO duality on project performance. Additionally, Wang & Zhang (2019) stressed the role of independent audit committees in improving project transparency and accountability, ultimately enhancing performance. In summary, promoting independent and accountable governance frameworks is

crucial for improving decision-making, risk management, and performance in road projects worldwide.

Kaszubowski & Kaszubowski (2019) looked at how well Polish road projects performed in relation to corporate governance. An examination of a case study was conducted together with the use of a questionnaire survey as the tool for gathering data. The study's conclusions demonstrated that corporate governance significantly affects how well Polish road projects perform. The study identified four key indicators of corporate governance that influence project performance, which are: board independence, board diversity, stakeholder engagement, and risk management. However, the research was done in a distinct location with more advanced infrastructure compared to the current study. The study by Kaszubowski and Kaszubowski (2019) is relevant to the function of strategy implementation officers as it shows that corporate governance, particularly board independence, diversity, stakeholder engagement were crucial for road projects perfromance in Poland, which may have implications for the road engineering industry in other countries.

Wang and Othman (2021) looked into how corporate governance affected the success of road projects in Malaysia and China. Data collection was accomplished using questionnaires. Questions on the project's performance, corporate governance procedures, and project features were included in the survey questionnaire. The data were examined using regression analysis as well as other descriptive and inferential statistics. According to the study, corporate governance significantly improves the effectiveness of road projects in both China and Malaysia. The indicators of corporate governance that had the most significant effect on project performance were transparency, accountability, and stakeholder engagement. Significant determinants of project performance were the scope and complexity of the project as well as the amount of industry rivalry. According to the study's findings, corporate governance is crucial for the effective completion of road projects in Malaysia and China.

Mohamed and Azman (2019) studied the effect of corporate governance on the performance of road projects was conducted in Malaysia. The study used a qualitative research methodology, including interviews with key stakeholders and a review of relevant documents. The study measured the effectiveness of corporate governance through indicators such as transparency, accountability, and ethical behavior. The results show a positive association between the two variables by ensuring that resources are allocated efficiently, risks are managed effectively, and stakeholder interests are protected. The findings of Kaszubowski and Kaszubowski's (2019) study on corporate governance's impact on road project performance in Poland suggest that the function of strategy implementation officers as project managers can be influenced by indicators of corporate governance such as stakeholder engagement and risk management. However, the study's applicability to countries with less advanced infrastructure, such as the current study's focus, may be limited.

Yeboah, Tuffour, and Afriyie (2019) investigated the performance of Ghanaian road projects and corporate governance. Regression analysis was used in conjunction with a survey of project stakeholders The study's results revealed no significant associations with board size or CEO

duality, but a substantial favorable link between board independence and project performance. The authors suggest that improving board independence can lead to better decision-making and accountability in road projects in Ghana. The study by Yeboah et al. (2019) on corporate governance and road project performance in Ghana is relevant to the function of strategy implementation officers as project managers because it shows how board independence is crucial for decision-making and accountability, which could influence the success of road projects.

Babajide and Ogundana (2021) looked at corporate governance and road infrastructure performance in Nigeria. This took into account a review of corporate governance practices in road infrastructure agencies in Nigeria, as well as interviews with key stakeholders. The study used four indicators of corporate governance: board composition, board effectiveness, risk management, and stakeholder engagement. Even though there were some good corporate governance processes, the study's results demonstrated that, in Nigerian road infrastructure agencies, there were also significant gaps and weaknesses. The authors suggest that improving corporate governance in these agencies can lead to better project planning, execution, and sustainability. Improving corporate governance in road infrastructure agencies can lead to better project planning, execution, and sustainability, which is relevant to the function of strategy implementation officers as project managers

Mbwana and Kibona (2019) looked on the effectiveness of Tanzanian road projects in terms of corporate governance. A nexus of corporate governance and project performance was investigated using regression analysis along with a survey of project stakeholders. The results disclosed that neither board size nor CEO duality were significantly related to project performance, but that board independence, audit committee effectiveness, and openness were. The authors suggest that improving these indicators of corporate governance can lead to better project outcomes in Tanzania's road sector.

In their 2019 study, Akwaa-Mensah, Ntow-Kummi, and Osei-Asibey (2019) explored the connection between Kenyan road project success and corporate governance. The study's cross-sectional survey approach was employed to gather information from 80 road building projects in Kenya. The questionnaire measured various dimensions of corporate governance, including transparency, accountability, fairness, and stakeholder engagement. The study used several indicators of corporate governance, including board effectiveness, audit committee effectiveness, management transparency, internal control, risk management, and ethical standards. The results showed a significant beneficial association between corporate governance and project success. More precisely, the study found a correlation between higher degrees of transparency, accountability, and stakeholder engagement and better project performance. Road building projects can perform better if strategy implementation officers use corporate governance norms that promote transparency, accountability, and stakeholder participation. The study, however, did not discover a substantial link between fairness and project success

A mixed-methods technique was used to undertake Muriuki, et al. (2021)'s investigation of the effectiveness of Kenyan road developments. The researchers used surveys, interviews, and

document analysis as well as quantitative and qualitative data gathering techniques. According to the study, corporate governance significantly influences whether road developments in Kenya are successful. It has been discovered that good governance techniques including accountability, openness, and stakeholder involvement have a favorable effect on project performance. In contrast, poor governance practices, such as corruption, lack of accountability, and inadequate stakeholder engagement, were found to have a negative impact on project performance.

Performance of Road Projects

A study by Kumar et al. (2019), evaluated the effectiveness of India's national roads. The study employed a case study methodology. Six Indian national highways were evaluated for performance using a variety of metrics, including travel time, safety, road quality, and serviceability. The authors come to the conclusion that while performance on India's national highways has improved, there is still a need for greater maintenance and safety measures.

Aremu et al. (2021) performed research on how well Nigerian road projects performed. The study's main objective was to assess the government of Nigeria's road development initiatives during the previous ten years. The writers combined quantitative and qualitative methodologies to examine the projects' performance. The completion rate, building quality, adherence to environmental rules, and cost effectiveness of the road projects were all considered as performance factors in the research. The study's findings showed that although the road projects' completion rates were high, sometimes poor construction quality and insufficient respect to environmental standards occurred. The analysis also discovered that the projects' general cost effectiveness was low.

Oluwajana et al. (2022) evaluate the variables influencing the project cost and timely completion of roads in the Nigerian states of Ondo and Ekiti. The study's findings indicate that insufficient equipment, poor planning, and other factors were the main reasons why road projects in Nigeria didn't finish on time. poor managerial abilities, the complexity of the project's development, equipment failure, and a lack of supplies. Inflation, inaccurate estimates, dishonest business practices, contractors' lack of project knowledge, insufficient planning, and overdesign were other key factors that had an impact on the expense of road building projects.

The prompt completion of a project is the one goal that clients and contractors have in common. This is due to the likelihood that potential income will be lost, and additional expenses will arise. Construction projects around the world, especially in Developing Nations, are plagued by the same issue of time and cost overruns (Oluwajana et al. 2022). However, schedule and expense overruns are frequent in Nigeria's construction sector and have continued unabatedly, according to Oluwajana et al. (2022).

When it comes to the planning and management of construction projects, three factors of time, cost, and quality play a major role (Oluwajana et al. 2022). Meeting output quality standards as well as the timeline and financial goals are all part of Oluwajana et al. (2022) concept of the success of the project. The main challenges to its success are therefore project changes that compel

trade-offs in terms of cost, time, and quality. Oluwajana et al. (2022) claim that recent increases in public investment have been made to refresh and revive the existing networks of highways and roads, which are quickly growing old and degrading and require prompt restoration efforts.

Additionally, government organizations have lately started employing novel contracting strategies that aim to accomplish numerous objectives, reduce project costs and timelines, and maximize quality and long-term return on public investment. As a result, for new and rising contracts, there is increasing need to identify an ideal resource utilization approach that minimizes construction costs and time while optimizing quality.

METHODOLOGY

Research Philosophy

The study utilized a mixed-methods approach, blending qualitative and quantitative methods for data collection and analysis, a strategy increasingly valued for its ability to provide a comprehensive understanding of complex research issues (Tashakkori & Teddlie, 2010). Pragmatism emerged as the most suitable research philosophy, prioritizing practical problem-solving and enabling researchers to adapt various data collection and analysis techniques to the study's context, objectives, and available resources (Creswell, 2014).

Research Design

The research adopted a sequential explanatory design, which involved collecting qualitative data followed by quantitative data, as recommended by Creswell and Plano-Clark (2017). This approach facilitated a thorough investigation into the relationship between strategy implementation, corporate governance, and road project performance, offering valuable insights for future industry decision-making.

Target Population

The target population was 140 road projects from which an accessible population of 208 Strategy Implementation Officers (SIOs) in Charge was obtained. The SIOs included 140 Strategy Implementation Officers (SIOs) in Charge at KeRRA and 140 Contractors' Chief Executive Officers (CEOs) or their equivalents. The Director General at KeRRA was also considered part of the target population. These professionals were responsible for strategy implementation in road projects.

Sampling Technique and Sample Size

The study utilized a combination of sampling techniques, including cluster sampling, purposive sampling, and Slovin's formula to determine the sample size. Cluster sampling helped in dividing the population into manageable clusters, reducing time and costs. Purposive sampling ensured relevant participants were selected based on their roles and expertise. Slovin's formula determined the sample size, resulting in 104 SIOs from KeRRA and 104 SIOs from contractors, totaling 208 participants.

Data Collection Instruments

An interview schedule and questionnaires were used to collect data. Questionnaires containing closed-ended questions were used to collect primary data from the SIOs. There were five levels on the Likert scale questions, with 1 denoting "strongly disagree," 2 denoting "disagree," and so on. Three represented neutrality, four represented agreement, and five represented strong agreement. Because they were very dependable, provided more data volume than other scales, and provided better approximations than the typical response curve, Likert scales were considered the most relevant scales. An interview schedule was used to collect data from the Director General.

Data Collection Procedure

In order to gather data, the researcher physically distributed questionnaires to respondents, accompanied by 4 research assistants. To increase the response rate, the researcher made follow-up calls and handed out the letters of reference from Kenya Methodist University and the National Commission for Science, Technology, and Innovation (NACOSTI). By keeping a registry of all the questionnaires that were sent out to respondents, the researcher took great care to ensure that they were all returned.

The pilot testing of research instruments, involving 10% of the sample size in the Nairobi Region, aimed to identify and resolve any potential issues before the main study. This process, guided by Baggs and Schmitt (2013) and Polit & Beck (2021), ensured the feasibility, validity, and reliability of the research design, allowing for accurate and meaningful data collection. Furthermore, reliability analysis, based on Cronbach's alpha, was employed to verify the internal consistency of data items, while validity was ensured through pre-tests, considering both content and criterion validity.

Data Analysis and Presentation

The researcher utilized both quantitative and qualitative data analysis approaches to examine data from various groups of respondents. Statistical analysis of the quantitative data gathered through questionnaires, including descriptive statistics, correlation analysis, and regression analysis, was performed using the SPSS program version 23. Descriptive statistics were employed to compile responses to Likert scale questions, offering an overview of respondents' perceptions regarding the

relationship between road project success and strategy execution. Correlation analysis determined the intensity and direction of the association between independent variables (strategic implementation and leadership styles) and the dependent variable (performance of road projects). Regression analysis was utilized to establish how effectively the independent variables predicted the dependent variable.

Ethical Consideration

Confidentiality was crucial since information that was pertinent to the study was critical from a strategic standpoint. Names of responders were covered up as a result. The researcher avoided asking improper or unpleasant questions. KeRRA provided the go-ahead to gather data from respondents within its constituency. Additionally, participants actively chose to take part in the study after doing their research. The safeguards improved the respondents' participation willingness and objectivity.

RESULTS AND DISCUSSIONS

The response rate for the study, averaging 90.9%, surpassed the recommended threshold of 75%, ensuring the sample's representativeness (Afolayan & Oniyinde, 2019; Rothman, 2018). Demographic characteristics revealed a predominantly male (61.9%) and educated (66.1% with a College-level qualification) sample, with varied tenures within their organizations (51.9% for 4-8 years). All respondents were involved in road development projects with KeRRA, reflecting diverse roles, including Road Engineers (47.6%) and Chief Executive Officers (52.4%), minimizing potential biases and enhancing the study's comprehensiveness.

Descriptive Statistics for Corporate Governance Practices

This table presents the results of a study assessing the perceptions of respondents regarding various corporate governance practices at the Kenya Rural Roads Authority (KeRRA). The study used a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to gauge agreement with different statements related to KeRRA's corporate governance policies. The table includes descriptive statistics such as the mean, standard deviation, skewness, and kurtosis for each statement.

The results suggest that the respondents generally view the corporate governance practices at KeRRA positively, with mean scores ranging from 3.60 to 3.76 on the Likert scale. These scores indicate a moderate to high level of agreement with the statements. The standard deviations are relatively consistent across the statements, suggesting a relatively narrow spread of responses.

For the statement "The size of the board of directors at KeRRA is appropriate for effective decision-making," the mean agreement score of 3.63 and standard deviation of 0.98 imply that respondents, on average, moderately agree that the board's size is suitable for decision-making. The negative skewness indicates that more respondents leaned towards agreement, suggesting a positive sentiment overall. The kurtosis value of 0.451 suggests that the distribution is relatively normal with a slight peak. This result aligns with a study by Nyamori et al. (2020), which

emphasized the significance of a balanced board size for efficient decision-making and effective governance in Kenya's public sector.

In the case of "The CEO of KeRRA holds a separate position from the board of directors, allowing for greater checks and balances," the mean score of 3.62 and standard deviation of 0.89 indicate that respondents, on average, hold a moderate agreement with this statement. The negative skewness and relatively platykurtic distribution suggest a concentration of responses towards agreement. This finding aligns with research by Omondi and Murimi (2019), which highlighted the importance of segregating leadership roles for improved corporate governance in Kenyan organizations.

Regarding the audit committee, with a mean agreement score of 3.71 and standard deviation of 0.95, respondents moderately agreed that the audit committee operates independently and effectively. These results resonate with the research by Odongo and Otuya (2018), which emphasized the pivotal role of robust and independent audit committees in enhancing the governance of public organizations in Kenya.

In the context of the impact of corporate governance practices, "Corporate governance practices at KeRRA have a positive impact on the performance of road projects" received a mean score of 3.72 and standard deviation of 0.90. The slightly negative skewness and near-zero kurtosis suggest a distribution that closely resembles a normal curve. This result corresponds to the observations from Kamau and Muriithi (2019), who established a link between effective governance and successful infrastructure project outcomes in Kenya.

The statement "Corporate governance practices at the contractor level have a positive impact on the performance of road projects" garnered a mean agreement score of 3.68 and standard deviation of 0.95. While this result does not align with a specific study, it highlights the perceived positive influence of governance practices on contractor-level performance.

The mean agreement scores of 3.60 and standard deviation of 0.87 for "There is transparency in the decision-making processes at KeRRA" indicate a moderate level of agreement among respondents.

For the statement on accountability, "Employees at KeRRA and contractors are held accountable for their actions and decisions," the mean score of 3.76 and standard deviation of 0.87 indicate a moderate to high level of agreement. This result underscores the respondents' positive perception of accountability mechanisms within the organization.

Lastly, the mean agreement scores of 3.64 and standard deviation of 0.84 for "There are adequate mechanisms in place to detect and prevent fraud and corruption in the management of road projects" points to a moderate level of agreement. This result aligns with findings by Kiamba et al. (2023), reflecting the challenges associated with implementing robust anti-corruption measures in Kenyan public projects.

In response, to questions relating to the what steps KeRRA takes to ensure the efficacy of corporate governance practices, the Director General gave the following responses.
Response on Board Independence: (How does KeRRA ensure that its Board is independent?)

KeRRA takes several crucial steps to ensure the independence of its Board. First and foremost, the nomination and appointment process for Board members is transparent and free from undue influence. Candidates are selected based on their qualifications and expertise, rather than personal or political affiliations. Additionally, the Board members are not employed by KeRRA or have any direct financial interests that could compromise their impartiality. Regular performance evaluations of Board members are conducted to ensure that they are fulfilling their roles independently and in the best interest of the organization.

The findings show that according to the director, KeRRA's rigorous measures to ensure the independence of its Board have significant implications for the organization's governance and decision-making processes. By maintaining a transparent nomination and appointment process, free from external influences, and by selecting Board members based on expertise rather than affiliations, KeRRA fosters a culture of unbiased and informed decision-making. The absence of financial interests among Board members minimizes conflicts of interest and enhances their ability to act in the organization's best interest. Regular performance evaluations further reinforce the commitment to independence and accountability, ultimately contributing to effective oversight and strategic direction for the road projects.

Response on Board Accountability: (How does KeRRA ensure that its Board is accountable to its stakeholders and the public? (Board Accountability)

KeRRA places a strong emphasis on ensuring that its Board remains accountable to stakeholders and the public. Regular communication channels are established to provide updates on the organization's projects, financial performance, and strategic initiatives. The Board holds open and transparent meetings where stakeholders and the public can attend, ask questions, and voice concerns. Furthermore, KeRRA publishes comprehensive reports that outline the Board's decisions, the rationale behind them, and their impact on the organization's goals. This commitment to transparency ensures that the Board's actions are aligned with the expectations of stakeholders and the public.

Response on Board Size: (What factors influenced KeRRA's decision on its Board size, and how has it affected the organization's performance?)

The decision on KeRRA's Board size was influenced by a careful consideration of the organization's complexity, the need for diverse expertise, and the efficiency of decision-making. A balanced number of Board members were selected to ensure representation from

> *different relevant fields, such as engineering, finance, and public administration.*
> *This diversity allows for well-rounded discussions and informed decisions. The optimal Board size has facilitated quicker decision-making, as it strikes a balance between incorporating various perspectives while maintaining operational efficiency.*

This implies that KeRRA's thoughtful consideration of Board size reflects its dedication to effective governance and decision-making. By selecting a balanced number of Board members with diverse expertise, KeRRA ensures that critical discussions encompass a wide range of perspectives. This approach promotes well-rounded decisions and innovative problem-solving. The optimal Board size's positive impact on decision-making efficiency translates to quicker responses to challenges and opportunities. Through this balance between representation and efficiency, KeRRA enhances its ability to steer road projects toward successful outcomes.

Response on CEO Duality: What is your opinion on the use of CEO duality in an organization, and how does KeRRA ensure the independence of its CEO?).

> *The question of CEO duality is an important one, and at KeRRA, we recognize the value of having an independent CEO. The separation of the CEO and Board Chair roles helps prevent conflicts of interest and ensures a system of checks and balances. KeRRA maintains a clear distinction between the CEO and Board Chair responsibilities to prevent concentration of power and decision-making authority. The CEO's performance is evaluated objectively by the Board, and the selection process for the CEO role is based on merit, experience, and leadership qualities that align with the organization's goals.*

KeRRA's stance on CEO duality underscores its commitment to organizational integrity and balanced leadership. The separation of the CEO and Board Chair roles strengthens checks and balances within the organization, mitigating the risks associated with concentrated power. This separation minimizes conflicts of interest and promotes an environment where decisions are made with the organization's best interest in mind. The clear evaluation process for the CEO's performance and the merit-based selection criteria ensure that leadership remains focused on achieving the organization's goals while upholding its independence and ethical standards.

Response on Audit Committee Independence: (What measures does KeRRA have in place to ensure the independence of its Audit Committee?)

> *KeRRA places a high priority on maintaining the independence of its Audit Committee. The members of the Audit Committee are selected based on their expertise in finance, accounting, and auditing, and they are not involved in the day-to-day operations of the organization. This separation ensures that the Committee can critically review financial reports, internal controls, and risk*

> *management practices without any bias. The Audit Committee also has a direct line of communication with external auditors, which further enhances its ability to provide an unbiased assessment of KeRRA's financial health and compliance with regulations.*

KeRRA's prioritization of Audit Committee independence is crucial for maintaining financial transparency and accountability. By selecting members with relevant expertise and excluding involvement in day-to-day operations, KeRRA ensures that financial oversight remains unbiased and thorough. The Committee's direct line of communication with external auditors enhances its ability to provide accurate and impartial assessments of the organization's financial health and regulatory compliance. This commitment to independent financial oversight boosts KeRRA's credibility and builds trust among stakeholders, promoting confidence in the organization's performance and project execution.

Table 1: Descriptive Statistics for Corporate Governance Practices

	N	Mean	Std. Dev
The size of the board of directors at KeRRA is appropriate for effective decision-making.	189	3.63	0.98
The CEO of KeRRA holds a separate position from the board of directors, allowing for greater checks and balances.	189	3.62	0.89
The audit committee at KeRRA operates independently and effectively in its oversight of financial reporting and controls.	189	3.71	0.95
Corporate governance practices at KeRRA have a positive impact on the performance of road projects.	189	3.72	0.90
Corporate governance practices at the contractor level have a positive impact on the performance of road projects.	189	3.68	0.95
There is transparency in the decision-making processes at KeRRA.	189	3.60	0.87
Employees at KeRRA and contractors are held accountable for their actions and decisions.	189	3.76	0.87
There are adequate mechanisms in place to detect and prevent fraud and corruption in the management of road projects.	189	3.64	0.84
Valid N (listwise)	0		

Descriptive Statistics for Project Completion within Budgetary Allocation

Table 2 presents the results of a survey conducted among Strategy Implementation Officers in Charge to gauge their perception of project completion within budgetary allocation, particularly in the context of road projects. The respondents were asked to rate their agreement levels on a Likert scale with five points, ranging from 1 (strongly disagree) to 5 (strongly agree), regarding various statements related to the performance of road projects. Table 2 discusses mean ratings for different

statements related to project budgeting, offering insights into respondents' perceptions. The first statement, "Projects are often completed over budget," garnered a mean rating of 3.56, suggesting a moderate level of agreement among respondents. This indicates that a significant portion of the surveyed individuals share the viewpoint that road projects commonly exceed their initially allocated budgets. This insight implies potential challenges in budget management and a pattern of projects going beyond financial projections.

Moving on to the second statement, "Budgetary constraints are taken into consideration in projects," the mean rating of 3.60 indicates a slightly higher level of agreement. This implies that a majority of respondents believe that project planners and implementers do consider budget limitations during the execution of projects. This acknowledgment highlights an awareness and, to some extent, an integration of budgetary constraints into project planning processes.

The third statement, "There is adequate allocation of funds for project completion," received a mean rating of 3.57, indicating a sentiment ranging from neutral to moderately agreeable. While respondents may not be entirely convinced about the sufficiency of fund allocation, the overall moderate agreement suggests a general sense of satisfaction or acceptance regarding the adequacy of funds for completing projects.

For the fourth statement, "The budgetary allocation is sufficient for project completion," the mean rating of 3.48 implies a moderate level of agreement. This suggests that respondents are somewhat inclined to believe that the budgetary allocations may not be entirely adequate for project completion. It hints at a perception among respondents that there might be room for improvement in ensuring budgets align more closely with the actual needs of the projects.

Finally, the fifth statement, "Projects are completed within the allocated budget," received a mean rating of 3.59, indicating a moderate level of agreement. This suggests that a substantial portion of respondents holds the opinion that projects generally adhere to their budgetary limits. While not an overwhelming agreement, it still indicates a positive perception that many projects are successfully executed within the confines of their allocated budgets. Overall, these mean ratings offer a nuanced understanding of respondents' perspectives on different aspects of project budgeting, shedding light on both areas of confidence and potential areas for improvement.

Table 2: Results for Project Completion within Budgetary Allocation

	N	Mean	Std. Deviation
Projects are often completed over budget.	189	3.5556	.76027
Budgetary constraints are taken into consideration in projects.	189	3.6032	.83551
There is adequate allocation of funds for project completion.	189	3.5661	.76639
The budgetary allocation is sufficient for project completion.	189	3.4815	.86043
Projects are completed within the allocated budget.	189	3.5926	.86181
Valid N (listwise)	0		

Descriptive Statistics for Completion Time

Table 3 presents the descriptive statistics for completion time, based on the responses of Strategy Implementation Officers in Charge. The table provides insights into their perceptions about Project Completion Time, using a Likert scale with a range from 1 to 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree." The mean value for the statement "Projects are often delayed" is 3.5926, with a standard deviation of 0.79770. These results indicate that, on average, respondents slightly agree that projects are often delayed. The relatively low standard deviation suggests that there is a moderate level of agreement among the respondents regarding this statement. In other words, there is a common perception among the participants that projects tend to experience delays, and there is relatively little variability in this viewpoint.

For the statement "Completion time is well-managed," the mean is 3.5714, and the standard deviation is 0.77283. This implies that, on average, respondents slightly agree that completion time is well-managed, with a moderate level of agreement among them. The results suggest a prevailing sentiment among participants that the management of completion time is generally satisfactory, and there is a moderate degree of consensus in this regard.

Regarding the statement "Project timelines are realistic," the mean is 3.5291, and the standard deviation is 0.79590. This indicates that, on average, respondents slightly agree that project timelines are realistic, with a moderate level of agreement. The findings suggest a common perception among the respondents that the timelines set for projects are, on the whole, considered realistic, and there is a moderate level of alignment in this viewpoint.

For the statement "Projects are completed within the expected time frame," the mean is 3.5291, and the standard deviation is 0.74766. This implies that, on average, respondents slightly agree that projects are completed within the expected time frame, and there is a moderate level of agreement. The results suggest a prevailing belief among the participants that projects generally adhere to the anticipated time frame, and there is a moderate degree of consensus in this perspective.

The statement "Delays in project completion are due to external factors" has a mean of 3.6190 and a standard deviation of 0.82698. This suggests that, on average, respondents slightly agree that delays in project completion are attributed to external factors, and there is a moderate level of agreement. The findings indicate a shared viewpoint among the participants that external factors play a role in project delays, and there is a moderate degree of consensus regarding this causal relationship.

Table 3: Descriptive Statistics for Completion Time

	N	Mean	Std. Dev
Projects are often delayed.	189	3.5926	.7977
Completion time is well-managed.	189	3.5714	.7728
Project timelines are realistic.	189	3.5291	.7959

Projects are completed within the expected time frame.	189	3.5291	.7477
Delays in project completion are due to external factors.	189	3.6190	.8270
Valid N (listwise)	189		

Descriptive Statistics for Quality of Project as per Provided Standards

Table 4 presents the descriptive statistics for the ratings provided by Strategy Implementation Officers in Charge concerning the Quality of Project as per Provided Standards. The Likert scale with a maximum of five points was used for respondents to rate their level of agreement with various statements.

The mean score for the statement "The quality of road projects is substandard" is 3.7090, with a standard deviation of 0.75440. The result implies that, on average, the respondents are leaning towards a neutral to slight agreement that road projects' quality is substandard. This could indicate concerns or reservations about the quality of road projects not meeting desired standards.

For the statement "The quality of the projects meets the provided standards," the mean score is 3.6402, and the standard deviation is 0.77024. This result implies that respondents are somewhat neutral or leaning slightly towards agreement that the quality of projects aligns with the provided standards. This could reflect a cautious optimism about project quality.

The statement "Quality control measures are well-implemented" has a mean score of 3.6720 and a standard deviation of 0.79781. The result suggests that respondents are somewhat inclined to agree that quality control measures are effectively implemented. This could indicate a degree of confidence in the mechanisms in place to maintain project quality.

Regarding the statement "The quality of the project is inspected and evaluated," the mean score is 3.6508, and the standard deviation is 0.68786. This result implies that respondents, on average, are moderately agreeing that project quality undergoes inspection and evaluation processes.

For the statement "There are mechanisms to ensure compliance with standards," the mean score is 3.6455, and the standard deviation is 0.79643. The result implies that respondents are somewhat neutral or leaning slightly towards agreement that there are mechanisms in place to ensure compliance with standards.

Table 4: Descriptive Statistics for Quality of Project as per Provided Standards

	N	Mean	Std. Deviation
The quality of road projects is substandard.	189	3.7090	.75440
The quality of the projects meets the provided standards.	189	3.6402	.77024
Quality control measures are well-implemented.	189	3.6720	.79781
The quality of the project is inspected and evaluated.	189	3.6508	.68786
There are mechanisms to ensure compliance with standards.	189	3.6455	.79643
Valid N (listwise)	189		

Correlations

The presented table 4.11 displays the correlation coefficients and their statistical significance between different factors related to Strategy Implementation and the Performance of Road Projects, with a specific focus on two groups: "Road Engineers" and "Chief Executive Officers." The analyzed factors include Corporate Governance Practices (X_1), Technology Adoption (X_2), Availability of Resources (X_3), Communication (X_4), Leadership Styles (X_5), and the Performance of Road Projects (Y). The significance level used is 0.05.

Table 5: Association between Strategy Implementation and performance of Road Projects

Position			X_1	X_2	X_3	X_4	X_5	Y
SIOs at KeRRA	X_1	Pearson Correlation	1					
		Sig. (2-tailed)						
		N	90					
	X_2	Pearson Correlation	.550	1				
		Sig. (2-tailed)	.000					
		N	90	90				
	X_3	Pearson Correlation	.603	.556	1			
		Sig. (2-tailed)	.000	.000				
		N	90	90	90			
	X_4	Pearson Correlation	.459	.666	.548	1		
		Sig. (2-tailed)	.000	.000	.000			
		N	90	90	90	90		
	X_5	Pearson Correlation	.360	.595	.471	.637	1	
		Sig. (2-tailed)	.000	.000	.000	.000		
		N	90	90	90	90	90	
	Y	Pearson Correlation	**.508**	**.618**	**.578**	**.615**	**.816**	1
		Sig. (2-tailed)	.000	.000	.000	.000	.000	
		N	90	90	90	90	90	90
SIOs with Contractors	X_1	Pearson Correlation	1					
		Sig. (2-tailed)						
		N	99					
	X_2	Pearson Correlation	.749	1				
		Sig. (2-tailed)	.000					
		N	99	99				
	X_3	Pearson Correlation	.738	.780	1			
		Sig. (2-tailed)	.000	.000				
		N	99	99	99			
	X_4	Pearson Correlation	.719	.809	.827	1		
		Sig. (2-tailed)	.000	.000	.000			
		N	99	99	99	99		
	X_5	Pearson Correlation	.620	.726	.711	.840	1	
		Sig. (2-tailed)	.000	.000	.000	.000		
		N	99	99	99	99	99	
	Y	Pearson Correlation	**.652**	**.687**	**.701**	**.758**	**.765**	1
		Sig. (2-tailed)	.000	.000	.000	.000	.000	
		N	99	99	99	99	99	99

**. Correlation is significant at the 0.05 level (2-tailed).

Key
X_1 = Leadership Styles
X_2 = Technology Adoption
X_3 = Availability of Resources
X_4 = Communication
X_5 = Corporate Governance

For the " SIOs with KERRA" group, there are statistically significant correlations between all the independent variables (X_1 to X_5) and the dependent variable (Y). The correlation coefficients range from 0.36 to 0.81. Notably, all correlations are positive, indicating that as the independent variables increase, the performance of road projects also tends to increase. This suggests that factors like Corporate Governance Practices, Technology Adoption, Availability of Resources, Communication, and Leadership Styles are positively associated with better performance in road projects. The strength of these correlations varies, with Leadership Styles (X_5) showing the strongest positive correlation (r = 0.816).

There is a significant positive correlation between Leadership Styles (X_1) and Performance of Road Projects (Y) with a correlation coefficient of 0.508 ($p < 0.05$). Similarly, Technology Adoption (X_2) is significantly positively correlated with Performance of Road Projects (Y) with a coefficient of 0.618 ($p < 0.05$). Availability of Resources (X_3) is significantly positively correlated with Performance of Road Projects (Y) with a coefficient of 0.578 ($p < 0.05$). Communication (X_4) also shows a significant positive correlation with Performance of Road Projects (Y) with a coefficient of 0.615 ($p < 0.05$). Corporate Governance (X_5) demonstrates the strongest positive correlation with Performance of Road Projects (Y) with a coefficient of 0.816 ($p < 0.05$).

For the "SIOs with Contractors" group, there are statistically significant positive correlations between all independent variables (X_1 to X_5) and the dependent variable (Y). The correlation coefficients range from 0.62 to 0.84. Again, this indicates that as the independent variables increase, the performance of road projects tends to increase. This aligns with the findings from the "Road Engineers" group, highlighting the consistent positive associations between the examined factors and project performance.

In the context of CEOs, similar trends are observed. Corporate Governance Practices (X_1) are significantly positively correlated with Performance of Road Projects (Y) with a coefficient of 0.652 ($p < 0.05$). Technology Adoption (X_2) also shows a significant positive correlation with Performance of Road Projects (Y) with a coefficient of 0.687 ($p < 0.05$). Availability of Resources (X_3) exhibits a significant positive correlation with Performance of Road Projects (Y) with a coefficient of 0.701 ($p < 0.05$). Communication (X_4) is significantly positively correlated with Performance of Road Projects (Y) with a coefficient of 0.758 ($p < 0.05$). Leadership Styles (X_5) indicates the strongest positive correlation with Performance of Road Projects (Y) with a coefficient of 0.765 ($p < 0.05$).

Comparing the two sets of analyses, it's evident that the associations are generally consistent across the two groups. Both "Road Engineers" and "Chief Executive Officers" show significant positive correlations between the independent variables (Corporate Governance Practices, Technology Adoption, Availability of Resources, Communication, and Leadership Styles) and the dependent variable (Performance of Road Projects). This suggests that these factors are crucial in influencing the success of road projects regardless of the specific group being examined.

The presented correlations demonstrate a clear positive relationship between various strategic implementation factors and the performance of road projects. These correlations are statistically significant, indicating that the associations are likely not due to chance. The consistency of these associations across the two groups, "Road Engineers" and "Chief Executive Officers," further underscores the importance of factors such as Leadership Styles, Technology Adoption, Availability of Resources, Communication, and Corporate Governance Practices in achieving successful road project outcomes.

The findings of the present study align closely with existing literature on the relationship between strategic implementation factors and road project performance. The significant positive correlations observed between Leadership Styles, Technology Adoption, Availability of Resources, Communication, and Corporate Governance Practices with the performance of road projects resonate with prior research. For instance, Wong et al. (2021) found a favorable correlation between technology alignment and project success in Malaysian road construction, which parallels our findings regarding Technology Adoption. Similarly, Ameyaw et al. (2019) discovered that technological alignment significantly improves project performance in Ghanaian road construction, consistent with our results on the positive correlation between Technology Adoption and road project performance. Moreover, the emphasis on effective communication strategies in improving project performance echoes the findings of Park et al. (2019), underlining the importance of Communication in our study context.

Furthermore, the literature review provided insights into the influence of Corporate Governance Practices on project success, which is corroborated by our findings. Wang and Othman (2021) demonstrated that corporate governance significantly improves the effectiveness of road projects in both Malaysia and China, emphasizing the role of transparency, accountability, and stakeholder engagement. Our study aligns with these findings, as we observed a significant positive correlation between Corporate Governance Practices and the performance of road projects in Kenya. Moreover, Muriuki et al. (2021) highlighted the importance of good governance techniques, including accountability and stakeholder involvement, in influencing project performance, which resonates with our findings regarding Corporate Governance Practices.

REGRESSION ANALYSES
Model Summary

The table presents the results of the regression analysis comparing models without and with the moderating variable, Corporate Governance Practices, on the relationship between independent

variables (Leadership Styles, Availability of Resources, Technology Adoption, and Communication) and the dependent variable, Performance of Road Projects. The Model Summary indicates that the model including the moderating variable slightly improves the predictive ability compared to the model without it. The R-squared value increases from .704 to .711 when incorporating the moderating variable, suggesting that approximately 71.1% of the variance in the dependent variable can be explained by the independent variables and the moderating variable combined. The adjusted R-squared also shows a slight improvement from .698 to .703 with the inclusion of the moderating variable. These results imply that introducing the moderating variable has a modest effect on the regression model, indicating that Corporate Governance Practices may indeed play a role in moderating the relationship between the independent variables and the performance of road projects. Further analyses such as examining the significance of interaction terms can provide deeper insights into the specific effects of Corporate Governance Practices on the regressed variables

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Without the Moderating Variable	.839[a]	.704	.698	.25329
With the Moderating Variable	.843a	.711	.703	.25113

a. Predictors: (Constant), Leadership Styles, Availability of Resources, Technology Adoption, Communication

a1. Predictors: (Constant), Corporate Governance Practices, Leadership Styles, Availability of Resources, Technology Adoption, Communication

Analysis of Variance (ANOVA)

The ANOVA results indicate significant regression for both models, without and with the moderating variable ($F_{(4, 184)} = 109.520$, $p < .000$; $F_{(5, 183)} = 89.959$, $p < .000$, respectively), suggesting that the models explain a significant amount of variance in road project performance. However, it's noteworthy that the model with the moderating variable has a slightly lower regression sum of squares and mean square compared to the model without it, indicating a potential reduction in explanatory power. Nevertheless, both models exhibit high statistical significance. These findings suggest that while the introduction of the moderating variable may influence the regressed variables.

Table 7: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
Without the Moderating Variable	Regression	28.104	4	7.026	109.520	.000[b]
	Residual	11.804	184	.064		
	Total	39.909	188			
With the Moderating Variable	Regression	28.367	5	5.673	89.959	.000[b]
	Residual	11.541	183	.063		
	Total	39.909	188			

a. Dependent Variable: The Performance of Road Projects

b. Predictors: (Constant), Leadership Styles, Availability of Resources, Technology Adoption, Communication

a1. Dependent Variable: The Performance of Road Projects

b1. Predictors: (Constant), Leadership Styles, Availability of Resources, Technology Adoption, Communication, Corporate Governance Practices (Moderating Variable)

Beta Coefficients

Table 7 presents the results of a regression analysis that examines the relationship between various factors and the performance of road projects, with a focus on the moderating effect of leadership styles. The dependent variable, "The performance of road projects," is assessed in relation to four independent variables: leadership practices, technology adoption, availability of resources, and communication. The table also includes the results for the model without the moderating variable and the model with the moderating variable, which is, corporate governance practices.

Table 8: Effect of Moderating Variable on Regressed Variables: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Without the Moderating Variable	(Constant)	.943	.135		6.990	.000
	Leadership Styles	.454	.054	.567	8.406	.000
	Technology Adoption	.087	.056	.109	1.553	.122
	Availability of Resources	.162	.053	.200	3.021	.003
	Communication	.029	.056	.043	.528	.598
With the Moderating Variable	(Constant)	.916	.134		6.814	.000
	Leadership Styles	.457	.054	.571	8.533	.000
	Technology Adoption	.050	.058	.063	.859	.392
	Availability of Resources	.120	.057	.148	2.115	.036
	Communication	.019	.056	.028	.344	.731
	Corporate Governance Practices	.095	.046	.129	2.042	.043

a. Dependent Variable: The Performance of Road Projects

The Regression models were as follows.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon\ldots\ldots\ldots\ldots\ldots(1)$$

Y= 1.265+ 0.83 + 0.150 + 0.165 + 0.239 + 0.152

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_j Z_j + \varepsilon\ldots\ldots\ldots\ldots (2)$$

$Y = 0.916 + 0.095 + 0.050 + 0.120 + 0.019 + 0.457 + 0.134$

In both models, Leadership Styles significantly positively predict the performance of road projects (β = 0.567, p < .001; β = 0.571, p < .001, respectively), indicating that higher levels of effective leadership are associated with better project performance. In the model without the moderating variable, Technology Adoption does not significantly predict road project performance (β = 0.109, p = .122). However, when Corporate Governance Practices are included, Technology Adoption remains non-significant (β = 0.063, p = .392), suggesting that technological factors may not directly influence project performance in this context. Corporate Governance Practices do not influence the relationship between leadership styles and predict the performance of road projects.

Availability of Resources is a significant predictor of road project performance in both models ($\beta = 0.200$, p = .003; $\beta = 0.148$, p = .036, respectively), indicating that having adequate resources positively impacts project outcomes. Communication does not significantly predict road project performance in either model ($\beta = 0.043$, p = .598; $\beta = 0.028$, p = .731, respectively), suggesting that communication factors may not have a direct influence on project performance. The situation even becomes worse with the introduction of the moderating variable.

In the model including the moderating variable, Corporate Governance Practices emerge as a significant predictor of road project performance ($\beta = 0.129$, p = .043), indicating that better corporate governance practices are associated with improved project outcomes. This suggests that the introduction of the moderating variable adds explanatory power to the model, highlighting its importance in understanding the relationship between the predictors and the dependent variable.

While Leadership Styles and Availability of Resources consistently emerge as significant predictors of road project performance, the introduction of Corporate Governance Practices as a moderating variable enhances the model's predictive ability, indicating its importance in influencing project outcomes.

Hypothesis Testing
Based on the $p < 0.05$ rule for statistical significance, let's evaluate each research hypothesis using the results from Table 7.

H_O6 *Corporate governance practices have no statistically significant moderating effect on the influence of strategy implementation on the performance of road projects by Kenya Rural Roads Authority.*

In Table 7, the p value for the moderating variable, corporate governance practices was 0.043, which was less than 0.05. Therefore, we can reject H_O6. This decision implies that corporate governance practices have a statistically significant moderating effect on the influence of strategy implementation on the performance of road projects by Kenya Rural Roads Authority. The findings are in agreement with those in a study by Wang and Othman (2021) corporate governance significantly improves the effectiveness of road projects.

CONCLUSIONS
The study's findings reveal a positive view of corporate governance practices at KeRRA, with respondents generally agreeing with various governance policies. These include the size of the board of directors, CEO segregation, audit committee effectiveness, transparency, accountability, and anti-corruption mechanisms. These views align with existing literature emphasizing governance's importance in public sector efficiency and project success. Additionally, the study shows positive correlations between strategic factors (leadership styles, technology adoption, resources, communication, and governance) and road project performance as perceived by KeRRA's Strategy Implementation Officers and contractors. Regression analyses highlight governance's significant moderating effect on this relationship, emphasizing its role in improving

project outcomes. These findings contribute to the literature on governance in infrastructure projects, emphasizing the need for effective governance in KeRRA's road development initiatives.

RECOMMENDATIONS

Based on the positive perception of corporate governance practices revealed in the study, it is recommended that the KeRRA Board of Directors continues to prioritize and maintain transparency, accountability, and effectiveness in its governance policies. Regular assessments and reviews of governance structures and practices should be conducted to ensure alignment with best practices and to address any emerging challenges or areas for improvement. Additionally, the board should consider incorporating feedback from stakeholders, including Strategy Implementation Officers (SIOs) and contractors, to further enhance governance processes and foster a culture of continuous improvement.

Given the significant positive correlations between strategic implementation factors and road project performance, SIOs and contractors should continue to prioritize effective leadership styles, technology adoption, availability of resources, communication, and corporate governance practices in their project planning and execution processes. It is recommended that SIOs and contractors actively engage with governance structures within KeRRA, such as the audit committee and decision-making processes, to ensure alignment with organizational objectives and enhance project outcomes. Collaboration and communication between SIOs and contractors, as well as with KeRRA's governance bodies, should be strengthened to facilitate the exchange of insights, best practices, and challenges encountered during project implementation.

In light of the statistically significant moderating effect of corporate governance practices on the relationship between strategy implementation factors and road project performance, KeRRA management should prioritize initiatives aimed at further strengthening governance mechanisms. This includes investing in training and capacity-building programs for board members, SIOs, and contractors to enhance their understanding of governance principles and their role in promoting effective governance practices within the organization. Moreover, KeRRA management should ensure that mechanisms are in place to monitor and evaluate the implementation of governance policies, with a focus on identifying areas of improvement and addressing any gaps or deficiencies. By fostering a culture of good governance throughout the organization, KeRRA can maximize the positive impact of its governance practices on road project performance and contribute to the overall success of infrastructure development initiatives in Kenya.

Suggestions for Further Studies

Based on the provided findings, here are five suggestions for further study:

There is need for a study on synergistic factors impacting road project success. Given the acknowledgment that factors beyond corporate governance practices influence road project success, a comprehensive investigation into these synergistic factors could be valuable. This study could explore the interplay between governance practices, technological adoption, resource

availability, communication, and other variables to uncover complex relationships and identify key drivers of successful road projects.

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