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Stakeholder Involvement, Resource Availability and Performance of Road Projects Under Kampala Capital City Authority, Uganda

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Abstract: This study examines the impact of stakeholder involvement and availability of resources on the performance of Kampala Capital City Authority (KCCA)-managed road works in Uganda. Road building is essential to the acceleration of economic growth and the quality of life, but delays and cost escalation threaten its success. The study aims to understand the extent to which the two variables contribute to ensuring the success of projects. Data were gathered over two months from 62 out of 76 road projects, including project managers, division councillors, and KCCA supervision team members. Qualitative and quantitative approaches were used, including surveys and questionnaires, and statistical analysis was done using SPSS. The findings reveal a positive correlation between stakeholder participation, available resources, and project performance. All these variables together explain 33.3% of the difference in the quality of the projects done. It emphasizes the importance of effective stakeholder engagement and adequate resources to ensure road projects are completed within time, budget, and quality. It proposes implementing formal policies for stakeholder interaction, improving accountability, encouraging public-private partnerships, and merging stakeholder feedback with resource planning. The study further calls upon additional research to facilitate comparison with other regions of the globe to determine better ways of improving project performance.

Keywords: *Stakeholder involvement, resource availability, performance, road projects Kampala Capital City Authority, Uganda*

1. Study Background

Successful road construction projects hold the key to building and maintaining infrastructure since they have impacts on economic development, social well-being, and overall quality of life (Kujukira, 2022). Road construction projects are critical pathways for moving goods and individuals, connecting communities, and facilitating access to essential services (Nuwagaba et al., 2022). As Martin and Kakumba (2020) note, good roads increase productivity, minimize travel time and costs, and promote trade by improving market accessibility. Well-constructed roads also minimize accidents and improve road safety for drivers and pedestrians (Ruth, 2022). For these reasons, timely and sufficient project completion of roads is critical in promoting social and economic development in rural and urban areas.

Abdel-Maksoud et al. (2021) observe that stakeholders should be involved in all phases of road construction, from planning through implementation and follow-up. While planning, stakeholders such as ministries of government, members of the public, investors, and contractors provide their knowledge to ensure that project goals match public desires and development targets (Kujukira, 2022). This helps set well-defined objectives, define the scope, and choose appropriate construction techniques (Abdel-Maksoud et al., 2021). In practice, stakeholders contribute through tracking performance, resolving issues at hand, and helping teams maintain timelines and quality standards (Nuwagaba et al., 2022). According to Kujukira (2022), they also offer constant consultancy and remarks, enabling effortless working arrangements on the ground. During monitoring and evaluation, regular checks by stakeholders help to track progress and make necessary changes in an effort to improve outcomes (Abdel-Maksoud et al., 2021). Nuwagaba et al. (2022) note that the kind of participation helps in building trust, increases transparency, and improves overall success within the project.

Availability of resources is a vital element that informs the conduct of road construction projects (Asiimwe, 2020). It includes financial resources, human resources, and technical resources. Adequate finance for the procurement of materials, machinery operation, and compensation for labor is needed (Asiimwe, 2020). Ggoobi et al. (2020) highlight government funding, overseas credit, and public-private partnerships as common sources of finance. Adequately qualified human resources, such as engineers, managers, and technicians, are

also needed to conduct the project in an appropriate way (Asiimwe, 2020). This necessitates appropriate recruitment, training, and offering conducive working conditions. Technical inputs such as equipment, construction materials, and state-of-the-art tools cause the roads to be durable and of superior quality (Ggoobi et al., 2020). Asiimwe (2020) adds that when equipment is available and reliable, it allows for the acceleration of job completion and quality work.

Baensch-Baltruschat et al. (2021) add that globally, countries such as Germany and Singapore are famous for possessing strong road infrastructure. There are more than 95% of roads in in good condition in Germany, which supports an efficient transportation system (Steininger, Groth, & Weber, 2021). Singapore has also developed one of the most efficient road networks, with more than 90% of roads having an excellent rating (Shan et al., 2020). Alaloul et al. (2021) credit this to continuous investment, sophisticated technologies, and efficient project management. Mirhosseini (2023) opines that the above examples reflect the importance of effective management, planning in the long term, and good governance in providing quality roads.

On the African continent, the development of roads has faced challenges country by country (Gamariel & David, 2021). Rwanda, for example, has registered notable improvements in road construction and maintenance (Nsanzimana & Mulyungi, 2020). Obala and Tuyishime (2023) indicate that more than 90% of Rwanda's roads are well surfaced and in good condition. Gamariel and David (2021) attribute the success to political commitment, innovative funding arrangements, and effective management. It is not the case with countries like Nigeria and Kenya, whose projects are late in execution, cost more, and are poorly implemented as a result of corruption, underfunding, and weak institutions (Matu et al., 2020). Notwithstanding this, improved road construction is a paramount goal for the majority of African governments, as they perceive its role in propelling socio-economic development (Aboginije et al., 2020).

In Uganda, where both economic growth and national development are the prime elements that encompass infrastructure, stakeholder contribution and resource availability cannot be dismissed (Mwelu et al., 2020). However, Elong (2020) and Lwanga (2021) indicate that the management of these two factors remains a major hindrance. Mutabazi (2021) explains that among the main issues is poor financing, which creates delays and insufficiency of funds. Though the government of Uganda, through UNRA and local authorities, has tried to improve infrastructure through strategic planning, some projects still fail to meet intended outcomes (Mwelu et al., 2021). For instance, the World Bank-funded Kampala Institutional & Infrastructure Development Project (KIIDP-2) has also faced rising costs, delays, and poor quality of work, as reported by the KCCA and Office of the Auditor General (Manishimwe, 2020). Such problems show the importance of being in possession of enhanced strategies that place resources at disposal on time to keep projects on track (Mutabazi, 2021).

In Kampala, projects such as the Kampala Roads Rehabilitation Project and the Kampala Annuity Roads Project have faced major problems with low levels of resources and a lack of proper stakeholder involvement (Mwelu et al., 2020). While KCCA has timetabled plans for the growth of the city infrastructure, issues such as a tight budget, low progress rates, and substandard workmanship continue to hinder processes (Elong, 2020). Lwanga (2021) outlines that most of Kampala's projects have failed, leading to a loss of money, disruption of daily life, and security concerns. This study thus focuses on how stakeholder engagement and resource management affect road construction project success in Kampala with an aim of offering pragmatic recommendations to ease the city's sustainable growth.

2. Theoretical and Literature Review

Theoretical review

Stakeholder Theory: The study is first underpinned by stakeholder theory, as initially developed by R. Edward Freeman in 1984. Stakeholders can be employees, customers, investors, government officials, communities, and so on (Freeman, 2023). Mahajan et al. (2023) explain that the theory shifts the paradigm from shareholder-only serving to recognizing a wider group of people and institutions that are either affected by or have interests in the actions of an organization. Ozdemir et al. emphasized that organizations must consider all stakeholders' interests and needs in deciding and establishing strategies. McGahan warned that if the concerns of stakeholders are not remedied, reputational damage, legal sanctions, and poor long-term results will ensue. They published their work in May 2023. In construction on the roads, the theory highlights the necessity of

involving different stakeholders such as contractors, regulators, government bodies, and the surrounding communities to ensure the accomplishment of projects. Jiang et al. (2023) highlight involving the stakeholders during the planning, implementing, and evaluating phases to ensure increased openness, accountability, and better results. But the theory has certain shortcomings, including difficulty in finding a balance between competing interests, identifying among the stakeholders who are of greater importance, and measuring their actual influence. But stakeholder theory offers a good guide for handling road construction project relationships and delivering outcomes beneficial to all.

Resource Dependency Theory: The study is further informed by resource dependency theory, which was initially developed by Jeffrey Pfeffer and Gerald R. Salancik in 1978. As posited by Guan et al. (2023), the theory is based on the realization that organizations rely on outside resources beyond their respective systems for them to carry out activities and grow. As Hossain et al. (2023) put it, organizations tend to try and reduce such dependency by diversifying the source of funding, materials, skills, and aid or by creating beneficial partnerships. According to Márquez-Carriel et al. (2023), the assurance of resources being available is a valuable strategy used to ensure seamless operations and stay competitive in a situation where this matters. Translating to road construction, theory demands sufficient availability of access to funding, skilled workers, and construction materials for maintaining flow (Wu et al., 2023). Pfister et al. (2023) also add that institutions may obtain capital from the government, appeal for grants or loans, enter into cooperation with private actors, or invest in new technologies in an effort to effectively utilize resources. Even though the theory describes how crucial access to valuable resources is, it also has some disadvantages. They include the possibility of relying too much on a small group of suppliers, scarcity or interruption risks, and complicating it to match the real costs and benefits involved in acquiring certain resources. With these reservations, however, resource dependency theory remains useful for describing how organizations can more effectively deal with their resource needs and build stronger and more reliable project delivery systems.

Empirical Literature Review

Stakeholder Involvement and Project Performance

Stakeholder participation has been known for a long time as an important causative factor of road construction project performance, especially in the public sector. Khan et al. (2021) conducted a quantitative analysis of public infrastructure projects in Pakistan, where they utilized a quantitative design to assess the influence of project governance and stakeholder management on project performance. They found that stakeholder management plays a big role in optimizing performance through support from effective governance systems. This concurs with Matsiko et al. (2024), whose mixed-method study under the Uganda National Roads Authority verified that stakeholder involvement at the planning phase, through consultations with the local community and district leaders, led to reduced delays to the project and higher beneficiaries' ownership. Similarly, Okaka (2023), in a case study conducted in Kiambu County, Kenya, investigated how stakeholder coordination affected the completion of Class B road projects. Her study showed that poor coordination among stakeholders led to miscommunication, wastage of funds, and delay. All three studies, collectively, find a common factor that timely and well-organized stakeholder participation, particularly in the planning stage, is vital for the success of road projects. While the settings vary across Uganda, Kenya, and Pakistan, the replicability of the findings accentuates the international importance of early engagement and proper management of stakeholder relations within public sector infrastructure delivery.

Prebanić and Vukomanović (2023) examined European infrastructure projects based on stakeholder engagement processes as success drivers. Following qualitative interviews and document analysis of projects, their study concluded that regulated engagement, transparency, and open lines of communication enable community trust and improve project timeliness. Building on this, Rane et al. (2021) took a more technology-oriented approach in their study of stakeholder involvement in green supply chains using blockchain and IoT integration. From their mixed-methods study, they concluded that transparency tools digitally helped greatly to coordinate stakeholders and eradicate delays. While based on environmental quality management, the learning is equally easily transferable to road infrastructure, stakeholder traceability and feedback loops are also more applicable. However, Wojewnik-Filipkowska et al. (2021), in their survey of Central European infrastructure project managers, uncovered the opposite challenge. Although stakeholder theory value is recognized, its application in practice is weak due to institutional weaknesses and vague responsibilities. This body of research describes a range from theoretical optimum to technology-facilitated delivery and

institutional obstacles to practical realization. It is clear that stakeholder involvement is theoretically embraced but its productive contribution to road project performance depends largely on organizational readiness, tools of engagement, and the governance arrangements under which projects are being delivered.

In an African environment, Waris et al. (2022) conducted a case study in the Malaysian public sector infrastructure and illustrated that projects with well-defined stakeholder roles and regular interaction had fewer disputes and enhanced completion. This aligns with work by Kordi et al. (2021), who used qualitative analysis to map social sustainability attributes onto stakeholder roles along the construction lifecycle. They held that active participation in all project stages increased performance as well as long-term benefit. Lucien and Amolo (2025), employing African road construction projects, further established these claims and reported that applying methods such as frequent stakeholder consultations, feedback incorporation, as well as open grievance redress mechanisms provides better results. While Waris et al. emphasize formal arrangements, Lucien and Amolo present the community-based approach, and Kordi et al. integrate the two, linking social outputs with technical processes. These studies collectively argue that effective stakeholder engagement is not one-fitting. It ought to be flexible enough to attend to both organizational effectiveness and social equity. Applied to projects in roads in institutions like Kampala Capital City Authority, these results show that achievement is realized by reconciling formal plans for stakeholder engagement with participatory practices among local communities as well as performance and sustainability-improving practices.

Evidence of the added value from stakeholder engagement in African road projects also comes from research in Nigeria and Kenya. Nnadi and Oyama (2023), using a descriptive survey from Nigeria, established that early stakeholder engagement reduces resistance and improves implementation. Majani and Senelwa (2025), using a mixed-method study in Bungoma County, Kenya, established that stakeholder participation in decision-making enhances efficiency and local ownership. This concurs with Matu et al. (2020), whose investigation of Kenya's urban road infrastructure identified participatory planning as key to the timely and cost-effective delivery of projects. The papers allude to a universal fact in every nation in Africa. Projects that do not listen to the voices of the local stakeholders are likely to fail, while projects that listen to the voices of the people tend to succeed. Above all, this highlights the core focus of the current research on Kampala Capital City Authority, where the same problems of project delays, nonconsultation, and poor coordination of resources are also persistent. With lessons learned in East and West Africa as the basis, this literature attests that stakeholder participation, when well planned, open, and sustained, is not a procedural requirement but a vital resource for achieving effective and sustainable road-construction outputs.

Resource Availability and Road Project Performance

Resource availability plays a vital role in determining how well road construction projects perform, especially in developing urban settings. Karuga et al. (2024), studying the Nairobi Metropolitan area in Kenya, explored how financial resource scheduling affects road project outcomes. Their research, based on a descriptive survey design, established that projects with structured financial planning and timely disbursement of funds achieved higher completion rates and stayed within budget. These results are echoed by Aradukunda and Sikubwabo (2024), who assessed the influence of financial resource management on project performance in Kigali City's public institutions between 2018 and 2022. Using a combination of quantitative and qualitative methods, their study revealed that effective financial controls, monitoring systems, and transparency directly contributed to improved project delivery. Similarly, Robert et al. (2021) focused on Uganda's public institutions and evaluated how managing financial resources impacts development outcomes. Though based in the education sector, their findings confirmed that when funds are properly allocated, tracked, and reported, project performance improves significantly. These three studies, though drawn from different sectors and cities, make a solid case for financial planning as a foundation for project efficiency. The connection to road construction under KCCA becomes clear: without predictable, well-managed financial inputs, performance suffers regardless of planning or technical expertise.

Beyond finances, human resource capacity is another critical component that shapes the success of road construction projects. Kipchirchir (2022), in a doctoral study under the Kenya National Highways Authority in Nairobi, examined how resource management, especially human capital, affects road project outcomes. Using a case study methodology, he found that poorly trained personnel, lack of supervision, and delays in staff deployment were key causes of underperformance. In line with these findings, Muntu et al. (2021) carried out

a cross-country study in Indonesia, revealing that human resource management, when supported by incentives and skill development programs, leads to better quality output and adherence to timelines. Ilić (2021), working in a European context, also looked at human resource practices in project environments. His research highlighted the importance of aligning HR functions with project goals, stating that weak alignment often leads to project delays and cost overruns. Together, these studies emphasize the human aspect of construction work. Skilled labor, adequate staffing, and proper HR planning form the foundation on which technical tasks are executed. For KCCA projects, this evidence underscores the need to not only recruit qualified personnel but also ensure that their deployment and management align with the project's changing demands.

Physical and material resources are another pillar in determining road construction performance. Tabitha and Sang (2025) examined road projects in Embu County, Kenya, focusing on how physical resource capability influences performance. Their study, conducted through structured questionnaires and interviews, found that the availability of machinery, construction materials, and logistical support directly correlated with speed and quality of project delivery. Alvanchi et al. (2021), in their study on materials logistics in road construction, used simulation methods to test different logistics planning scenarios. The results showed that well-structured material flows not only reduce wastage but also shorten construction timelines. Cheserek and Oscar (2023), who focused on the Kenya Urban Roads Authority Western Region, studied the role of project technology in construction. Their research indicated that the use of up-to-date machinery and digital tracking tools significantly improved output quality and monitoring efficiency. All three studies demonstrate that delays and performance issues often trace back to the physical and material readiness of a project. Applied to Kampala, this implies that availability and timely delivery of construction equipment, materials, and site support services are just as crucial as technical planning or budgeting.

Technological capacity also has a growing influence on the performance of modern road projects. Kamarkor et al. (2024) assessed technological factors affecting road construction in Nairobi County. Through a survey-based design, they concluded that technology adoption, including GIS mapping, automated grading tools, and real-time data systems, led to faster project completion and better cost control. Their findings align with those of Cheserek and Oscar (2023), who observed that technology improves not only efficiency but also transparency in resource utilization. Additionally, Alvanchi et al. (2021), in a study using discrete event simulation, showed how technological integration in material logistics could reshape planning and eliminate idle time. Taken together, these studies present a strong argument that project performance improves when technology is not treated as an afterthought but embedded in core operations. For KCCA road projects, embracing technology in areas such as design, monitoring, procurement, and reporting can transform project delivery. The collective evidence highlights that financial, human, physical, and technological resources do not operate in isolation. Their interplay is what determines whether road projects are completed on time, within budget, and to the required standards.

Stakeholder Involvement, Resource Availability and Road Project Performance

The dual impact of stakeholder participation and resource availability has come to be increasingly recognized as crucial towards enhancing road project performance. Khan et al. (2021), through their empirical analysis of public sector infrastructure projects in Pakistan, demonstrated how proper management of stakeholders coupled with effective project governance enhances the quality of project delivery. In their quantitative study, they found that collaborative working with stakeholders ensured better resource mobilization and reduced delays in project execution. Similarly, Shaukat et al. (2022), in a study on sustainable project management for development projects, found stakeholder engagement to be a moderator, increasing the effect of team building and resource coordination to make a project successful. Structural equation model results confirm that even resourceful projects are successful only if stakeholders are engaged in the decision-making process. Lee (2021), which focuses on nonprofit organizations, adds one more layer by showing that consistent measurement of performance is more likely with the involvement of stakeholders and transparent resource allocation. These three studies emphasize that resources are not absolute but their efficiency greatly depends on how effectively the stakeholders are involved in impact and tracking their utilization.

McGahan (2021) adds to this argument by integrating the resource-based view of the firm with stakeholder theory, that enduring project success is dependent on the merging of internal capability and external stakeholder relations. This assumption is reiterated in Eaton et al. (2021), who derived a conceptual framework

in the water resource management arena, proving that both active stakeholder participation and adequate resource facilitation are essential towards maintaining behavioral change and results. Their mixed-methods approach highlighted how inclusive practices of engagement supported resource targeting and overall project legitimacy. Similarly, Murphy et al. (2021), in the context of global mental health projects, have identified the main barriers and enablers of stakeholder engagement and concluded that the effectiveness of the application of resources depends significantly on how well stakeholders are brought in as early as the planning stage. These findings, although based on varying industries, all point to the same result: stakeholder involvement and resource availability must occur simultaneously so that infrastructure projects like roads are attained properly and in a sustainable manner.

The dual synergy of both of these aspects is likewise apparent in existing research on the sustainability and competitiveness of projects. Lyulyov et al. (2023), in their review of companies engaging in green competitiveness, concluded that stakeholder involvement had a positive influence on mobilization and utilization of resources, which ultimately translated to sustainability performance. Chukwuma-Eke et al. (2022) proposed a financial optimization framework for significant energy projects, which suggested that quality budgeting was not only contingent upon budgetary instruments but also coordinated stakeholder inputs to ensure maximal relevance and consideration of funding priorities. Lastly, Hamdan et al. (2021), in their analysis of sustainable neighborhood projects, concluded that collaborative frameworks by stakeholders enabled efficient exchange of resources and easy implementation. Collectively, the research suggests that Kampala Capital City Authority road projects can be greatly enhanced by adopting both stakeholder engagement and resource mobilization. When these are addressed in a harmonious strategy, project delivery becomes more timely, cost-efficient, and community-sensitive.

3. Research Methodology

This study utilized a quantitative approach using a cross-sectional study to assess the effect of stakeholder involvement and resource availability on the performance of road construction projects under Kampala Capital City Authority (KCCA). Of 76 identified projects, 62 were selected using Krejcie and Morgan's (1970) table for selecting sample size. Stratified random sampling was employed by first classifying the projects according to their completion status and subsequently applying simple random sampling per stratum. Structured questionnaires were used to collect primary data from key stakeholders such as project managers, KCCA supervision officers, and division councillors. The questionnaire method was selected because of its ability to yield standardized data across respondents. Three main variables were under investigation in this research: stakeholder participation, quantified in terms of planning, executing, and monitoring activities; resource availability, quantified in terms of financial, human, and technical resources; and project performance, quantified in terms of cost control, on-time delivery, and quality of outputs. The reliability of the instrument was tested using Cronbach's alpha, all of which were above the actual value of 0.70. Content validity was ensured through the use of the Content Validity Index (CVI), whose scores were also above 0.70. Data were coded and analyzed with SPSS software version 26. Descriptive statistics were employed in the presentation of the project descriptions, while Pearson correlation and regression analysis were employed to identify the correlations between variables. Interpretation of findings occurred at the project level, presenting evidence-based information on the determinants of road construction project performance in Kampala.

4. Results

Demographic Characteristics of Respondents

In the study, most of the respondents were male (59.4%) and fell between the ages of 36 and 55 (88.6%), showing that Kampala's road construction projects are largely managed by a mature and experienced group. A good number (85.4%) were in senior or managerial positions, with very few from junior or mid-level ranks. On top of that, 79.6% had been with their organizations for over 10 years, and none had less than six years of experience. This paints a picture of a workforce that is deeply experienced and likely well-versed in handling complex projects. However, it also brings to light a gap when it comes to involving younger professionals. The lack of youth presence may affect the sector's ability to tap into fresh ideas, innovation, and long-term talent development.

Table 1: Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Involvement in Planning-1	1											
Involvement in Implementation-2	0.04	1										
Involvement in Monitoring and Evaluation-3	0.11	.128*	1									
Stakeholder Involvement-4	.551**	.650**	.677**	1								
Financial Resources-5	.201**	0.027	0.023	.117*	1							
Human Resources-6	.346**	0.776	0.04	.164**	.233**	1						
Technical Resources-7	.418**	0.07	0.02	.244**	.408**	.355**	1					
Resource Availability-8	.438**	0.03	0.03	.242**	.721**	.668**	.837**	1				
Project Cost-9	.172**	0.03	.136*	.173**	.154**	.635**	.176**	.401**	1			
Project Schedule-10	0.189*	.270**	0.342*	.194**	.213**	.133*	.429**	.367**	0.09	1		
Project Quality-11	.173**	0.137*	0.06	.169**	.305**	.359**	.378**	.465**	.226**	.475**	1	
Project Performance-12	.203**	.197**	0.08	.249**	.315**	.494**	.469**	.569**	.555**	.771**	.807**	1

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

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

Stakeholder involvement and the Performance of road construction projects under Kampala Capital City Authority.

The results reveal a significant positive relationship between stakeholder involvement and the performance of road construction projects under Kampala Capital City Authority ($r = .249$, $p < .01$), suggesting that increased engagement of stakeholders contributes meaningfully to better project outcomes. Each aspect of stakeholder involvement; whether in planning, implementation, or monitoring; shows a positive and significant link with the specific performance dimensions of project cost ($r = .172$, $p < .01$), schedule ($r = .189$, $p < .05$), and quality ($r = .173$, $p < .01$). This pattern indicates that when stakeholders are actively involved throughout the project cycle, there is improved alignment with budget targets, better adherence to timelines, and enhanced delivery of quality standards. Additionally, the overall project performance variable records a significant positive correlation with stakeholder involvement ($r = .203$, $p < .01$), reinforcing the view that stakeholder participation plays a critical role in the success of road construction projects.

Resource Availability and the Performance of road construction projects Under Kampala Capital City Authority.

The results show a high and significant positive correlation between resource availability and road project works performance under Kampala Capital City Authority ($r = .569$, $p < .01$). This means that road project performance rises when resources such as finances, qualified human capital, and technical equipment are available. All the measures of resource availability are significantly positively correlated with project performance; thus, better access to resources improves cost control, satisfaction in terms of the schedule, and maintains quality. Similarly, the various measures of performance are also positively correlated with resource availability, which suggests that sufficient availability of resources is critical in achieving successful road construction projects.

The interaction effect of stakeholder involvement and resource availability on the performance of road construction projects under Kampala Capital City Authority.

The third objective was addressed by running a regression analysis on the interaction of the two independent variables on the dependent variable.

The results are presented in Table 2.

Table 2: Regression results on the combined effect

Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.212	.110		20.031	0.000
	Interaction (stakeholder involvement and resource availability)	.106	.010	.533	10.661	0.000

ANOVA and Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.533	.284	.282	.3046	113.657	.000b

a Dependent Variable: Performance
a Predictors: (Constant), Interaction (stakeholder involvement and resource availability)
Source: Primary Data, 2024

The research reveals that the interaction effect of stakeholder involvement and resource availability has a positive impact on the performance of the project with a beta value of 0.533 (Beta = .533, $p < .01$). This shows that as the stakeholder involvement and resource availability of one unit both increase at the same time, the project performance is also enhanced by 0.533 units. Moreover, the model is significant at the statistical level of predicting project performance as measured by the F-statistic of 113. The regression model with this interaction significantly explains the variation of Kampala Capital City Authority road construction project performance. Specifically, the model summary indicates that stakeholder involvement and availability of resources together account for 28.2% (Adjusted R Square = .282) of the project performance variation, while other factors not included in this study account for 71.8% of the variation.

Discussion of Findings

The study statistically shows that when the stakeholders are involved in the different stages of road construction projects within Kampala Capital City Authority, their performance improves greatly. With a correlation value of $r = .249$ and significance at $p < .01$, it is evident that greater engagement, whether during planning, implementation, or monitoring, is linked to better outcomes like keeping costs under control, completing work on time, and delivering quality roads. Past research by Matsiko et al. (2024) and Majani and Senelwa (2025) did stress stakeholder involvement, especially in Kenya and Uganda, but they were focused on independent phases or project components only. What makes this research stand out is that it shows how all aspects of stakeholder involvement are important and how these correspond very much to every essential project performance metric. More importantly, it brings to the fore Kampala's urban road works, a context which previous research has been prone to neglect. Through showing how the discourses of KCCA officials, contractors, and local leaders are blended in an attempt to determine project outcomes, the study generates a richer and more localized conceptualization of the functioning of stakeholder engagement in practice.

With respect to the impact of resource availability in enhancing project success, the evidence is compelling. It is strongly positively correlated with project performance, with $r = .569$ and $p < .01$. All resources, be they financial, human, or technical, are of utmost concern. Technical resources, for instance, showed a correlation of $r = .418$, human resources at $r = .346$, and financial resources at $r = .201$. These figures confirm that the availability of sufficiently skilled labor, sufficient finance, and suitable technology can directly improve the performance of road projects. These conclusions are consistent with other studies by Karuga et al. (2024), who reported that improved financial planning improved performance in Nairobi, and Kipchirchir (2022), who observed how a shortage of resources delayed road works in Kenya. But unlike those studies, which only concentrated on a single category of resources or did not cover Uganda in particular, this study gives a more comprehensive picture by discussing all the main categories of resources within the Kampala local context. That makes it highly relevant to local planners and leaders trying to make actual decisions about resource allocation and project management.

In analyzing the combined effect of stakeholder involvement and resource availability, together. The regression analysis did yield a statistically significant combined effect with a beta value of .533 and $p < .01$. The model explains about 28.2 percent of the changes in project performance, which means that when these two variables are simultaneously improved, outcomes in projects are greatly improved. Previous research, like McGahan (2021) and Shaukat et al. (2022), had also shown that these factors could be used to make a project successful, but they did not have actual statistics to back it up. This research fills this gap by giving actual statistics from Kampala's public road projects and how the two are clearly effective when both are utilized together. It sends an unmistakable message to project teams and policy makers: if road construction projects are to thrive, they do not only require focusing on resources or stakeholders but simultaneously improving both.

5. Conclusion

In conclusion, this study has established that stakeholder involvement and resource availability are both critical drivers of road construction project performance under Kampala Capital City Authority. The results confirmed a statistically significant relationship between stakeholder engagement and improved project outcomes, highlighting the value of inclusive participation throughout planning, implementation, and monitoring stages. Similarly, the availability of financial, human, and technical resources showed a strong positive link with performance, underscoring the importance of well-managed inputs in delivering quality, timely, and cost-effective infrastructure. More importantly, the study revealed that the combined effect of stakeholder involvement and resource availability produces even greater improvements in project results, offering a practical solution for enhancing project success. Unlike past research that treated these elements in isolation or remained at a conceptual level, this study provides empirical evidence rooted in the Ugandan context, filling a key gap and offering clear direction to policymakers, project managers, and development partners working to improve urban infrastructure delivery in Kampala.

Recommendations

Based on the findings of the study, several recommendations have been suggested to enhance the performance of road projects under the Kampala Capital City Authority:

Establish formal policies and guidelines for stakeholder engagement that mandate regular consultation, feedback loops, and transparent communication. This could include creating stakeholder advisory committees or forums to facilitate ongoing negotiations and address concerns proactively. Such policies will ensure that stakeholder perspectives are systematically incorporated into project planning and execution, leading to more effective and accepted project outcomes. Policymakers should also adopt tight accountability mechanisms and performance monitoring systems to track project progress and outcomes. Implementing regular audits, performance reviews, and reporting requirements can help identify issues early, ensure compliance with standards, and drive continuous improvement. Transparent reporting and accountability measures will also build trust among stakeholders and ensure that projects meet their goals effectively. Also promote and incentivize public-private partnerships to leverage additional expertise, funding, and innovative solutions for road construction projects. PPPs can provide access to specialized skills and advanced technologies while sharing risks and responsibilities. Creating a supportive regulatory environment and offering financial incentives for private sector involvement can enhance resource availability and stakeholder engagement.

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