Examining Factors Influencing Delay of Construction Projects in Tanzania: A Case of Gerenzani- Mbagala BRT Road

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Abstract	NG-Journal of Social Development
This study examined the factors influencing the delay in the Gerezani-Mbagala BRT road construction project in Dar es Salaam. Specifically, the study examined client and consultant related factors that resulted in the delay in road construction in the study area. The study was guided by resource-based theory. The study used a descriptive research design and adopted purposive and stratified sampling techniques to select 50 members of the sample of the study. On the other hand, a questionnaire and interview tools were used to solicit information from the respondents. Additionally, the appropriate model for data analysis was the logistic regression model. The findings showed that limited funds provided by the client and poor communication had statistically significant associations with project delays in the Gerezani-Mbagala BRT construction project. Also, the results revealed that a delay in approving major changes and a lack of experience among the consultants had a statistically significant influence on the delays in the Gerezani-Mbagala BRT construction project. The study further revealed that delays in payments from the client and rework due to errors made by the construction personnel were significantly associated with project delays in the Gerezani-Mbagala BRT construction project. The study concludes that client-related and consultant-related significantly caused the delays in the Gerezani-Mbagala BRT construction project. The study recommends that the client should provide enough time to produce project briefs and other feasibility studies, as this would lessen	

the impact of inaccurate project cost estimation, unforeseen site circumstances, and slow site clearances on the delivery of the construction project.

1. Introduction

The construction industry is a mechanism for enabling countries to achieve their urban and rural development goals (Donati et al., 2022). It has a significant impact on the economy of any country (Sambasivan et al., 2017). The main determinants of project outcomes are cost, time, and quality. Road construction projects frequently experience delays in their completion. These projects typically result in cost overruns. Delays have an impact on customers, contractors, and consultants, which may result in distrust, legal action, and cash flow problems. This weakness affects not only majority of the developing poor nations but also the rich ones (Enshassi et al., 2009). Because they have a big impact on people and the associated costs, construction projects play a vital role in the economy of any nation. Residential, commercial, industrial, road, and other types of constructions are all included in these projects. Construction initiatives are necessary because they are crucial to the growth of a country (Pakir et al., 2012). Nevertheless, delays encountered in the completions of most of the construction projects have become a common and recurrent problem in many nations.

According to Donati et al. (2022), delay is a period beyond the time specified in a contractual agreement or the date on which both the contractor and the client decided to hand over a construction project. Therefore, construction delays can only be minimised when their causes are identified (Kang et al, 2023). The main purpose of roads is to provide ease of access and mobility, and connect cities and towns. At present, most of the developing countries around the world are prioritising the initiatives of upgrading and connecting their road networks. Road projects are being scheduled as the principle focus of the national budget, given that a good road network accelerates the growth of the economy. Therefore, the transportation sector cannot provide services effectively without adequate and requisite infrastructure. A lot of delays have been reported about various construction projects, and the consequences of those delays vary considerably from one project to another. For instance, according to a study by Maues et al. (2017), between 2005 and 2015, 82% of the building projects in Brazil had delays compared to the agreed-upon completion timelines.

Their study concludes that 116 building projects, on average, missed the deadline. This circumstance had an impact on the projects' quality, safety, timeliness, and cost. According to a study by the Chartered Institute of Building (CIOB), the Dubai metro project was the third most problematic, with a 5-year delay and an 85% increase in cost from the projected schedule and budget. This was primarily because of the significant number of disputes resulting from design and scope changes (Wilks, 2015).

In a related study carried out by Ramli et al. (2017), it was found that 79.5% and 66.7% of the 359 public construction projects were not accomplished within the time specified in the contracts in Malaysia. Moreover, the study showed that 80% of Malaysian government projects were delayed. A study by Hazim and Saleem (2015) identified the causes of delays in road construction projects in Jodan which included improper planning, weather fluctuations, poor site management, and inadequate site investigation. Hussin and Omran (2011) and Chiocha (2011) investigated the

delays that contributed to public construction projects in Nigeria and came to the conclusion that local chiefs' corruption, misappropriation of funds that affected performance projects, poor contractual awards poor technology employment and poor expertise selection, accounted for the majority of the delays. Further, the study revealed that more than 60% of rural roads were not completed on time because of the aforementioned reasons, and up to 78% of rural roads were in bad condition.

According to James (2015), among the causes delaying construction projects in Kenya were absence of community involvement, subpar technology used by local contractors, failure of conceptual planning, subpar craftsmanship, and variation in the design stages. The Thika Superhighway project was cited as an example, where construction was supposed to be finished in 2011, but the deadline was postponed twice. The result was an increase of costs and time whereby the government spent around 7 billion Kenyan shillings more than the initial budget. Most building projects in Tanzania were not also completed within the allotted period, according to Kikwasi (2012). Kikwasi's study showed that about 70% of projects started in Tanzania got worse by more than 50% over time because of the poor performance of building projects in Tanzania.

The impact is the prolonging of the construction period for various projects due to the same factors which Konzo (2020) has reported. For instance, the timeframe for completing the project to upgrade the 67-kilometre-long Uyovu-Bwanga-Biharamulo road was prolonged from its original 24-month completion date to 36 months. However, efficiency can be measured by how quickly projects are completed. To achieve this goal, a contractor must carefully determine or specify the variables that affect the project's performance and estimate those variables' effects prior to the project's commencement. Both parties must do a thorough examination and define the causes and contributing elements that, if not avoided, will cause a delay.

Nevertheless, various scholars have come up with varying perspectives on what contributes to construction project delays. According to research conducted in Tanzania by Konzo (2020), delays can be experienced due to various factors, such as inadequate specifications and designs, modifications to the road project's scope, and subpar project management. In another study based on the causes and effects of delay and disruption in building projects in Tanzania, Kikwasi (2012) noted the same delay-related issues. Further, a study conducted in Tanzania by Simon (2017) revealed that political interference, poor contractor management, periodic amendments, additional work, resource availability, poor contractual relations, and a lack of personnel present at the workshop are some of the causes of delays in road construction in Tanzania. Based on the factors indicated by the experts above, there has been an ongoing debate over the variables that cause delays in road construction projects. This is because their findings vary from one study to another. This study specifically examined the factors contributing to delay of construction of projects in the Tanzanian context, specifically the BRT road construction of the Gerezani-Mbagala route.

2. Literature Review
2.1 Theoretical Review

This study adopted Resource-Based Theory. The basic idea of this theory which was developed by Penrose in 1959 was that the availability of resources typically has an impact on an organisation's ability to succeed. The theory hypothesizes that an organisation's resource capacity plays a significant role in determining whether initiatives are successfully carried out or not. Mohammed (2012), one of the theory's proponents, argues that an organisation must have enough resources that are necessary for carrying out a project. This study is related to Resource-based Theory since

it provides theoretical insights about whether an organisation, including a contractor and other stakeholders, will have sufficient resources to complete a project. Indicators of a contractor's ability to manage road construction projects include their experience. Competent employees, efficient planning and project appraisal, and sufficient resources are all expected to be utilized by experienced contractors to shorten turnaround time for completing road construction projects.

2.4 Empirical Literature Review

The Ludwig *et al.,* (2020) examined the reasons for delays in road development projects in 25 developing nations. The results indicated that inefficient in project scheduling was a major factor for delay in construction project. Ghazali (2017) looked into what was causing the development project in Kuantan to be delayed. The study findings showed that factors contributing to the delays were insufficient financing to support the process, inclement weather, delayed approval and amendment of design papers, protracted contractor claim settlement, and low labour productivity. Ahmad (2017) assessed the main causes of construction project delays in India. The results demonstrate that the three primary causes of delays were miscalculations about the amount of time needed, a shortage of resources, and construction faults. In addition, the top major repercussions of delay were litigation, negative societal ramifications, cost overruns, and time overruns. In addition, disagreements among project participants, project abandonment, an increase in total costs, and a decrease in income were the main risks associated with delays in construction. The findings in a study by Pakir et al. (2012) showed that the level of experience of the contractors is a factor that influences the timely completion of projects. The study further showed that a contractor who has won the bid begins by choosing the best strategy, allocating the necessary manpower and resources, connecting all the legal partners, and, most importantly, completing the project within the anticipated timelines. Luvara's (2018) study aimed to enumerate and prioritise the primary reasons for the construction delays and cost overruns in the Dar-Es-Salaam project.The results showed that the most crucial elements were prior experience with projects as a consultant, delayed decision-making, incomplete designs and estimates at tender, enhancing standard drawings or making design changes during the construction phase, and mistakes and omissions in the bill of quantities and drawings. The study made several recommendations, such as the need for public organisations to make decisions swiftly during the construction phase, to control design modifications while ensuring that design change inquiries are promptly resolved, to enable efficient coordination and communication among stakeholders, to promptly resolve design change inquiries, and to have a system in place for obtaining and delivering materials.

3. Materials and Methods

This study was conducted in Dar es Salaam and specifically, focused on the project for bus rapid transit of the Mbagala-Gerezani BRT road. This is because the road project's deadline for delivery was prolonged to 2023 after one year had passed. Also, the study was conducted in Dar es Salaam because the project was being implemented only in this region. The study adopted mixed method research design as both quantitative and qualitative methods were involved. The study involved 50 respondents who were selected from the different stakeholders of the project. The data collection methods that were employed in this study were surveys, key informant interviews, and observation. These methods were adopted as they were appropriate for this research to gather information from individuals and gain insights into their perspectives and experiences. Also, the survey used a questionnaire tool with a set of structured questions related to the factors causing the delay in the road construction project. The researcher distributed these questionnaires to the sample of individuals who were directly or indirectly involved in the project, such as project

managers, engineers, contractors, and government officials. The respondents were asked to provide their opinions, experiences, and suggestions regarding the factors contributing to the delay. The key informant interviewees were selected based on their expertise and involvement in the road construction project since their insights would be valuable and relevant. Data were analysed qualitatively and quantitatively. Data that were collected through recording the interviews were analysed using content analysis whereas interview quotes that were derived from the respondents were transcribed, coded and then grouped according to the themes. Additionally, the study used binary logistic regression analysis to analyse quantitative data as per the specific objectives of the study. The descriptive statistics and multiple regression model were used to analyse quantitative data as follows:

The dependent variable was the delay in the completion of the Gerezani - Mbagala BRT road project which was categorized as binary (1-Delay and 0-Not delay). The appropriate model for analysis was logistic regression model specified as;

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \varepsilon_i$$

Where;

$$logit\left(\frac{p}{1-p}\right) = \frac{e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\beta_5 X_5+\beta_6 X_6+\beta_7 X_7+\beta_8 X_8}}{1 + e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\beta_5 X_5+\beta_6 X_6+\beta_7 X_7+\beta_8 X_8}}$$

Logit = logistic link function

p = probability that there is a delay of Gerezani - Mbagala BRT road construction project.

1-p = probability that there is no delay of Gerezani - Mbagala BRT road construction project.

β_0 = intercept

β_1 = parameter estimates or logit coefficients

y = delay of Gerezani - Mbagala BRT road construction project

X_1-X_2= Independent variables

4. Results and Discussion

4.1 Demographic Characteristics of Respondents

Results shown in Table 1 indicated that 26(57.8%) of the respondents were male and 19 (42.2%) were female. Age of respondents in the Table 4.1 showed that 12(26.7%) of the respondents comprised the age range of 18-30 years, 25(55.6%) were in the age range of 31-40 years, 41-50 years were 5(11.1%), and 51-60 years were 2(4.4%). The lowest percentage was that of the respondents who were ages 61 years and above which was 1(2.2%). It was established that, about 2(4.4%) of the respondents were project managers, 5(11.1%) engineers and 28(62.2%) technicians. The study results showed that, about 6(13.3%) were surveyors while 1(2.2%) was a consultant while the rest 3(6.7%) were from different fields. Therefore, the respondents in the study had different nature of work that made the researcher to understand that the construction of roads involved different people with different categories of work. The study findings indicated that about 3(6.7%) had attained primary level of education while 2(4.4%) had secondary education

qualifications and 20(44.4%) had undergone vocational training. Additionally, the study findings revealed that about 8(17.8%) of the respondents were diploma holders while 12(26.7%) were university education holders. Lastly, about 11(24.4%) of the respondents had an experience of 1-3 years, 16(35.6%) had that of 3-6 years and 8(17.8%) had 6-9 years. Also, about 10(22.2%) of the respondents had an experience of more than 9 years. In that regard, it can be said that, most of respondents who participated in the study had enough experience on construction of road projects.

Variables	Category	Frequency	Percent
Gender	Male	26	57.8
	Female	19	42.2
	Total	**45**	**100.0**
Age group	18-30 years	12	26.7
	31-40 years	25	55.6
	41-50 years	5	11.1
	51-60 years	2	4.4
	61 and above	1	2.2
	Total	**45**	**100.0**
Nature of work	Project Manager	2	4.4
	Engineer	5	11.1
	Technician	28	62.2
	Surveyor	6	13.3
	Consultant	1	2.2
	Others	3	6.7
		45	100.0
Level of education	Primary	3	6.7
	Secondary	2	4.4
	Vocational training	20	44.4
	Diploma	8	17.8
	University	12	26.7
	Total	**45**	**100.0**
Experience	1-3 years	11	24.4
	3-6 years	16	35.6
	6-9 years	8	17.8
	More than 9	10	22.2
	Total	**45**	**100.0**

Table 1: Demographic Characteristics of the respondents

4.2. Client-Related Factors and Delay of Gerezani - Mbagala BRT

Table 2 shows the finding on the client-related factors on the delay of the Gerezani - Mbagala Bus Rapid Transit (BRT) project. The results showed that funds allocation, limited funds provided by the client and poor communication statistically contributed to the delay in construction of Gerezani-mbagala BRT project. Financial allocation was statistically significant at $p \leq 0.05$, the coefficient money allocation was -3.034. The negative coefficient suggests that allocating money correctly decreased the likelihood of project delay and the significance level is 0.026, indicating a statistically significant association between money allocation and project delay. This is due to the

fact that proper allocation of funds ensures that the necessary resources such as labour, materials, and equipment, are available when needed. The limited funds provided by the client was statistically significant at $p \leq 0.05$ with the coefficient of 2.837 and the P significance level was 0.018, indicating a statistically significant influence. This positive coefficient indicated that limited funds provided by the client increase the likelihood of project delay. In that regard, having limited funds in the road construction projects tended to affect the whole project and, as a result, it led to the delay of the project. With limited funds, the project team may face difficulties in handling these unforeseen costs, leading to delays while seeking additional funding or making adjustments to accommodate the new requirements. Additionally, key informant interviewee who was the Project Accountant said:

> Limited funds may result in a lack of necessary resources for the project. Road construction projects require various resources such as materials, equipment, and skilled labour. If the client does not provide enough funds, it can lead to a shortage of these resources, causing delays in the construction process. (Interview, 2023).

The findings from key informant interview imply that when a project is allocated limited funds, it means that there is inadequate amount of money available to cover all the expenses associated with the construction process. This can include costs of labour, materials, equipment, permits, and other related expenses. Furthermore, limited funds can also impact negatively on the availability of necessary equipment for road construction projects.

Poor communication was statistically significant at $p \leq 0.10$ with a coefficient of 1.738. The positive coefficient suggested that poor communication increased the likelihood of project delay and the P value level was 0.085, which is marginally significant ($p < 0.1$). This indicates that when communication channels are ineffective, decisions may be delayed as information is not shared promptly or adequately. This can hinder progress and impact negatively on the overall project timeline. Projects often involve multiple stakeholders and team members working together. Poor communication can make it difficult to coordinate activities, allocate tasks, or resolve issues efficiently. This can cause delays as dependencies are not managed effectively. If communication is lacking, it becomes difficult to provide timely feedback, track progress, or identify potential issues that require urgent attention early. This can result in delays as problems go unnoticed until they become more significant.

These findings are similar to those in a study by Ludwig et al., (2020) which showed that some projects rely on external vendors or suppliers for materials, services, or components. It also showed that limited funds can impact on the ability to secure timely deliveries or negotiate favourable terms, which can cause delays in project execution. Also, the findings are similar with that in the study by Faridi and El-Sayegh (2016) who found that effective communication is crucial for project success, and poor communication can contribute to delays in several ways. Lack of clear communication between team members, stakeholders, or the client can result in misunderstandings about project requirements, objectives, and timelines. This can lead to rework, conflicts, or delays as efforts are redirected to rectify these misunderstandings. Additionally, Afridi's (2018) study showed that effective allocation of money includes setting aside contingency funds for unexpected events or risks that may arise during the project. Having these reserves ensures that unforeseen issues can be addressed without causing major delays or halting progress. Sufficient funds allow for investment in quality control measures. Through conducting thorough inspections and testing, potential defects or errors can be identified early, hence, reducing the chances of rework or delays due to fixing avoidable mistakes. Proper funding enables the hiring of skilled project managers

and teams, which are crucial for overseeing the project effectively. Competent management can streamline processes, resolve issues promptly, and keep the project on track, thus, reducing delays. Lastly Msanga (2020) notes that communication plays a vital role in ensuring that all stakeholders involved in the road project are adequately updated on the progress of the project. They include government agencies, contractors, engineers, designers, and local communities. Through establishing clear lines of communication, everyone can understand the project goals, objectives, and requirements, which helps to minimize misunderstandings and conflicts. Effective communication enables efficient coordination and collaboration among different teams and individuals. Road projects involve various disciplines such as civil engineering, transportation planning, environmental studies, and construction management. Each team or individual has their own set of responsibilities and tasks that need to be synchronized for the project to progress smoothly. Regular communication ensures that everyone is aware of their roles and responsibilities, deadlines, and any changes or updates that may arise during the course of the project construction.

Client-Related Factors	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Correctly money allocation.	-3.034	1.363	4.955	1	0.026**	0.048	0.003	0.696
Lack of proper planning of funds.	0.742	0.828	0.802	1	0.371	2.099	0.414	10.641
Limited funds provided by the client.	2.837	1.202	5.573	1	0.018**	17.060	1.619	179.795
Mis-management of funds by the client.	0.200	0.837	0.057	1	0.811	1.221	0.237	6.300
Divergence of funds by the client.	0.461	0.853	0.293	1	0.588	1.586	0.298	8.435
Delay in making payments.	-0.136	0.843	0.026	1	0.871	0.873	0.167	4.550
Poor site representation.	-0.153	0.923	0.027	1	0.868	0.858	0.141	5.237
Poor communication.	1.738	1.009	2.968	1	0.085*	5.686	0.787	41.073

Constant	-0.922	1.191	0.600	1	0.439	0.398

Omnibus Tests of Model Coefficients: chi-square=20.398, df=8 and p-value=0.009

Model summary: -2 log likelihood=40.173, Cox&Snell R-square=0.364 and Negelkerke R-square=0.493

Hosmer and Lemeshow Test: Chi-Square=3.036, df=7 and P-value=0.882

Table 4. 2: Client-related factors   for delay of construction projects Gerezani - Mbagala BRT

4.4 The Influence of Consultant-Related Factors on Delay of Gerezani - Mbagala BRT

The findings from Table 4.3 showed result the consultant-related factors on the delay of the Gerezani - Mbagala Bus Rapid Transit (BRT) project. Poor coordination, delaying in approving major changes and lack of experience were statistically significant in influencing delaying of completion of the Gerezan-Mbagala BRT. Poor coordination was statistically significant at $p \leq 0.1$ with a coefficient of -1.469 and a standard error of 0.844. Additionally, p-value was 0.082, indicating a marginally significant influence of poor coordination on project delays. This implies that projects with poor coordination are associated with a higher likelihood of experiencing delays. The study concludes that when coordination is lacking, team members may not effectively communicate with each other. This can result in misunderstandings, misinterpretations, and missed updates on project progress or changes. Important information may not reach the right people at the right time, causing delays as a result. Also, during key informant interview with Project Coordinator, he pointed out:

> *In any project, there are multiple teams, departments, and individuals involved, each with their own responsibilities and tasks. Without proper coordination, there is a higher likelihood of miscommunication, misunderstandings, and incomplete or delayed information sharing. This leads to confusion, duplication of efforts, and even conflicts among team members. (Interview Guide, 2023).*

This entails that proper coordination is essential for the smooth functioning of any team, organization, or project. When team members do not communicate effectively or share information clearly and timely, messages can get distorted, leading to misunderstandings. This can result in tasks being executed incorrectly, confusion about priorities, and wasted efforts. Inefficient coordination often leads to improper distribution of resources such as manpower, equipment, and materials.

 Correspondingly, during the interview, the project coordinator pointed out that poor coordination may cause a rework of a project, hence, delaying in completing the project. Also, during fieldwork, the researcher observed that some rework that was being done in the site as the plate 4.1 shows. When mistakes are found in a project, it usually indicates that the original work was done incorrectly or did not adhere to the specifications. This means that fixing the errors and getting the project back on track will take more time and effort. This plan outlines the required remedial measures, assigns resources, and sets execution deadlines. These remedial measures might include updating code, modifying designs, undertaking further testing, or even restarting certain project phases, depending on the type of mistakes or errors that have been made. The timely completion

of projects can be greatly impacted by the adoption of these corrective procedures, which need careful planning.

Plate 4.1: One of the rework tasks at Mivinjeni area

Delay in approving major changes was statistically significant at $p \leq 0.05$ with a coefficient of -2.123, a standard error of 0.896 and a p-value of 0.018, indicating a statistically significant influence of delays in approving major changes on project completion delays. Hence, it is suggested that delays in approving major changes are associated with a significant likelihood of experiencing delays. This indicates that delay in approving major changes is indeed one of the factors that can contribute to project delays. Several reasons can explain why delays in approving major changes can have a significant impact on project timelines. In addition to that major changes in a project often require careful consideration and evaluation. When the approval process is slow or involves multiple stakeholders, it can lead to delays in the completion of a project.

The Study findings are similar with Marzouk and Tarek's (2014) study which showed that changes in a project may require reallocation of resources such as manpower, funds, or equipment. Additionally, study findings correlate with Masanja's (2018) study which showed that poor coordination often means that roles and responsibilities are not clearly defined. Team members may not know who is responsible for specific tasks or decisions, leading to confusion and duplicated efforts. This can cause delays as work may be left undone or completed in a way that requires rework. Many projects involve tasks that depend on others being completed first. If coordination is lacking, these dependencies may not be identified or managed effectively. When one part of the project falls behind, it can create a bottleneck that delays the entire project. Poor coordination can lead to inefficient allocation of resources. For example, if teams are not aware of each other's needs, they may not prioritize resources effectively. This can lead to delays when critical resources are not available when needed. On the other hand, a study by Afridi (2018) revealed that proper coordination ensures that all project components are executed simultaneously, reducing delays and improving overall project timelines. Effective coordination can help identify potential issues early on, preventing costly rework and minimizing delays that can increase project expenses. Furthermore, proper coordination enables better communication with stakeholders, keeping them informed and addressing their concerns in a timely manner.

Consultant-related factor	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Poor Pre-planning	-0.135	0.852	0.025	1	0.874	0.874	0.165	4.639
Poor systematic work plans and schedules	0.754	0.874	0.746	1	0.388	2.126	0.384	11.781
Poor coordination	-1.469	0.844	3.032	1	0.082**	0.230	0.044	1.203
Delay in approving major changes	-2.123	0.896	5.616	1	0.018**	0.120	0.021	0.693
Delay in performing inspection and testing	0.767	0.875	0.769	1	0.380	2.154	0.388	11.963
Lack of experience	-2.429	0.881	7.605	1	0.006**	0.088	0.016	0.495
Constant	2.669	1.053	6.424	1	0.011	14.419		

Omnibus Tests of Model Coefficients: chi-square=20.498, df=6 and p-value=0.002

Model summary: -2 log likelihood=40.073, Cox&Snell R-square=0.366 and Negelkerke R-square=0.495

Hosmer and Lemeshow Test: Chi-Square=4.785, df=7 and P-value=0.686

Table 4.3: Consultant-Related Factors on Delay of Gerezani - Mbagala BRT Project

5. Conclusion and Recommendations

With regard to the client-related factors of the Gerezani-Mbagala BRT road project delay, findings revealed that factors such as appropriate allocation of funds and limited funds provided by the client significantly influenced project completion delays. Hence, money allocation and adequacy should be considered during the project implementation for the project to be successfully and timely completed. With regard to the consultant-related factors for delay in road construction in the study area, the study found that the factors like poor coordination, delay in approving major changes, and lack of experience were statistically significant in influencing project completion delays in the Gerezani-Mbagala BRT. The study recommends that more funds should be availed to ensure the successful and timely completion of road construction projects. Roads are a critical part of a country's infrastructure. They facilitate the movement of goods, services, and people which is essential for economic growth and development. Increasing funding for road construction allows for the expansion and improvement of transportation networks, hence, reducing congestion and improving overall efficiency. Also, effective communication is needed to ensure that everyone involved is aware of project objectives, timelines, and responsibilities. Lastly, the study recommends that addressing the problem of delays in approving major changes in construction of road projects is needed since it is crucial for ensuring efficient project execution and timely completion.

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