

Analyzing the Causes and Impacts of Disputes in the Rwanda Road Construction Sector and Determining Ways of Reducing Disputes

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Abstract: Civil works worldwide tend to provoke big differences of opinion between even the best-intentioned participants, which can swiftly escalate into contentious disagreements and be difficult to overcome. Rwanda, like other developing nations, is quickly boosting capital investment. Construction disagreements can delay project completion, increase costs, or even lead to project suspension. For significant infrastructure projects like roads, this can be disastrous and stressful. The capacity to handle contract disputes promptly and efficiently is the difference between on-time project completion and a failed capital expenditure that takes years to finish. These prompted me to study the sources, effects, and solutions. This study employed descriptive methods to construct research questions about the subject's current situation. Descriptive research tells how things are. A survey and questionnaires collected quantitative and qualitative data from respondents, which were analyzed using SPSS and spreadsheets, ranked, and a sample t-test was conducted to draw conclusions and make recommendations. Mixed-methods research combines quantitative and qualitative data. Quantitative data comes from surveys or structured interviews. This paper analyzes construction disputes in Rwanda's road-building sector, drawing on research. Cluster sampling determined the sample population. Contractors, consultants, and clients in Rwanda's construction business were cluster sampled.

Keywords: Construction Disputes; Infrastructure Projects; Dispute Resolution; Descriptive Research; Project Execution; Mixed Methodology; Cluster Sampling; Project Suspension.

Cite as: N. Kwizera, H. Haidoura, and P. Sudha, "Analyzing the Causes and Impacts of Disputes in the Rwanda Road Construction Sector and Determining Ways of Reducing Disputes," *AVE Trends in Intelligent Social Letters*, vol. 2, no. 4, pp. 163–172, 2025.

Journal Homepage: <https://avepubs.com/user/journals/details/ATISL>

Received on: 06/12/2024, **Revised on:** 26/02/2025, **Accepted on:** 04/06/2025, **Published on:** 11/12/2025

DOI: <https://doi.org/10.64091/ATISL.2025.000237>

1. Introduction

The road construction sector is a cornerstone of Rwanda's economic growth, facilitating trade, mobility, and urban development. Kigali, the nation's capital, has experienced rapid urbanisation and infrastructure expansion, necessitating significant investments in road construction [1]. However, these developments have not been without challenges, as disputes frequently arise during project execution. Such disputes can result in cost overruns, delays, and strained relationships between stakeholders, undermining the sector's contributions to national development [2]. This study focuses on understanding the

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underlying causes and impacts of disputes in Kigali's road construction sector [3]. Key factors contributing to these conflicts include miscommunication, contractual misunderstandings, inadequate project planning, payment delays, and resource constraints [4]. Additionally, regulatory and administrative challenges, coupled with the complex dynamics of multi-stakeholder projects, exacerbate the likelihood of disagreements [5]. These disputes often disrupt project timelines, inflate budgets, and compromise infrastructure quality. The impacts of unresolved disputes extend beyond project inefficiencies, affecting the broader economic and social landscape [6]. Delayed road projects impede transportation networks, hinder business operations, and limit access to essential services, particularly in urban areas like Kigali [7]. Furthermore, the recurring nature of disputes damages trust among stakeholders, creating a volatile environment for future investments in the construction sector [8]. The study also explores practical strategies for mitigating and addressing these disputes [9]. These include improving communication channels, enhancing contractual clarity, adopting alternative dispute resolution mechanisms, and strengthening regulatory frameworks [10]. By fostering collaboration among stakeholders and adopting proactive conflict-management approaches, the sector can ensure timely, cost-effective project delivery [11]. Ultimately, this research aims to provide actionable recommendations to minimise disputes in Kigali's road construction projects, ensuring sustainable urban development and contributing to Rwanda's Vision 2050 goals [12].

1.1. Objective

Analysing the causes and Impacts of disputes in the Rwanda Road Construction Sector and determining ways of reducing disputes. Case study: Kigali city – Rwanda [13].

1.2. Justification of the Study

The road construction sector is vital to Rwanda's economic development, facilitating trade, mobility, and access to key services [14]. As Kigali City experiences rapid urbanisation and infrastructure development, the demand for new roads and the rehabilitation of existing ones continues to rise [15]. However, despite the strategic importance of road construction, the sector has seen an increasing number of disputes among stakeholders, including contractors, clients (government agencies), suppliers, and local communities [16]. The justification for this study is based on the following key points:

- **Increasing Disputes in the Road Construction Sector:** Road construction projects in Kigali City have been subject to a range of disputes, including delays, cost overruns, quality issues, and non-compliance with contractual obligations. These disputes can delay project timelines, increase costs, and negatively impact the overall effectiveness of the city's infrastructure development. Identifying the underlying causes and the specific factors that lead to these disputes is crucial for improving the industry's efficiency.
- **Economic and Social Implications of Disputes:** The consequences of unresolved disputes go beyond financial implications. They affect social outcomes, such as poor road conditions, safety risks, and hindered mobility for city residents. The study aims to assess how disputes affect the quality and safety of road construction, ultimately affecting the broader community. Understanding these impacts is vital for the government and stakeholders to create effective policies and mechanisms for dispute resolution.
- **Potential for Sustainable Development:** As Rwanda positions itself as a growing economy in the East African region, infrastructure development, particularly in urban centres such as Kigali, is pivotal. A focus on resolving disputes will not only improve the efficiency of road construction projects but will also contribute to achieving sustainable urban development. Addressing disputes can lead to better resource allocation, optimised project timelines, and enhanced infrastructure quality that aligns with the city's long-term development goals.
- **Policy Implications for the Government and Stakeholders:** The findings from this study will provide valuable insights to key stakeholders involved in road construction, including governmental bodies such as the Rwanda Transport Development Agency (RTDA), contractors, project managers, and legal professionals. By identifying key causes of disputes and assessing their impact, the study will offer recommendations on regulatory frameworks, contract management practices, and dispute-resolution mechanisms to minimise conflicts and ensure smoother execution of road construction projects.
- **Contribution to the Existing Literature:** Despite the growing importance of infrastructure development in Rwanda, there is limited research focusing specifically on disputes in the road construction sector. This study will fill this gap by providing a focused case study of Kigali, exploring the causes and consequences of disputes, and offering actionable solutions. This contribution is vital for both academia and industry professionals looking to enhance project management and reduce conflicts in road construction projects.
- **Improvement of Industry Practices and Professional Standards:** Disputes in the road construction sector often stem from poor communication, lack of transparency, and inadequate risk management strategies. By analysing these factors, the study will recommend practical solutions to improve industry practices, build professional capacity, and enhance communication between contractors and clients. This could ultimately lead to the development of professional standards and guidelines that foster a more collaborative environment.

So, this study is essential for understanding the dynamics of disputes in the road construction sector, particularly in Kigali City, and for proposing effective solutions that will ensure the smooth, timely completion of road projects [17]. By minimising conflicts, the study supports Rwanda's overarching goals of economic development, sustainable urbanisation, and efficient infrastructure delivery [18].

1.3. Scope of Study

The research primarily focused on analysing dispute occurrences in the Rwandan construction industry. The road sector received considerable attention because it is a key part of infrastructure development [19]. The survey results came from contractors, consultants, and client organisations that had worked on various road projects across the country for 1 to 30 years. This means that the geographical coverage was wide [20]. The research paper required 3 months to complete, including field surveys for data collection.

1.4. State of the Art

The state of the art in understanding disputes in the road construction sector, particularly in emerging economies like Rwanda, draws on research, real-world case studies, and industry best practices [21]. Various factors contribute to these disputes, ranging from technical, contractual, and financial issues to socio-political and environmental concerns. This section provides a detailed overview of the current understanding of road construction disputes, focusing on their causes, impacts, and existing strategies to mitigate them. It also considers the global context and lessons Rwanda can apply to its own road construction sector.

2. Materials and Methods

2.1. Requirement Analysis and Materials

The Materials and Methods section of a research study is essential for outlining the specific materials, tools, and methodologies used to analyse the causes and impacts of disputes in the road construction sector in Kigali City, Rwanda. This section will detail the types of data required, the materials needed to conduct the research, and the methods used to collect, analyse, and interpret the data.

2.1.1. Requirement Analysis

Before undertaking the study, a comprehensive requirements analysis is necessary to ensure that all critical research elements are identified. These requirements include identifying the types of data, the key stakeholders involved, the study's scope, and the tools needed for the research process. In the context of this study, the following key requirements are identified:

2.1.2. Data Collection Needs

- **Primary Data:** First-hand information will be gathered from stakeholders involved in road construction projects, including contractors, project managers, clients (government agencies), and local communities.
- **Secondary Data:** Existing data, such as previous studies, reports from the Rwanda Transport Development Agency (RTDA) and the Ministry of Infrastructure (MININFRA), and other government documents, will be reviewed to understand the scope and context of disputes in the road construction sector in Kigali.

2.1.3. Key Stakeholders to Involve in the Study

- **Contractors and Construction Companies:** These will provide insights into common sources of disputes, such as payment delays, project timelines, and quality issues.
- **Government Agencies:** Ministries like MININFRA and RTDA, which oversee road projects, will be important for understanding contractual issues and regulatory challenges.
- **Project Managers and Supervisors:** These individuals will offer perspectives on day-to-day management challenges, coordination issues, and communication failures that might lead to disputes.
- **Legal Professionals:** Legal experts involved in resolving disputes in the construction sector can provide knowledge of contract enforcement, dispute-resolution mechanisms, and the role of arbitration/mediation.
- **Local Communities and Residents:** Because road projects often affect local communities, gathering feedback on issues such as land acquisition, compensation, and environmental impacts will be essential.

2.1.4. Scope of the Study

- **Geographical Scope:** The study will focus on the road construction sector in Kigali City, Rwanda's capital, a primary area of urban development and infrastructure investment.
- **Time Frame:** The study will primarily focus on ongoing and recently completed road construction projects in Kigali over the past five years, to ensure relevance to current industry practices and challenges.
- **Types of Disputes:** The study will examine disputes related to delays, cost overruns, quality of work, land acquisition, and legal issues such as contract enforcement.

2.1.5. Data Requirements

- **Qualitative Data:** Interviews, focus groups, and stakeholder case studies will provide in-depth perspectives on the causes and impacts of disputes in road construction projects.
- **Quantitative Data:** Survey data will be collected to quantify the frequency and severity of specific disputes, such as payment delays, safety violations, and project delays.

2.2. Materials Required

The materials needed for this study will include both physical tools and resources for fieldwork and software and databases for data analysis. The following materials are necessary.

2.2.1. Fieldwork Materials

- **Interview and Survey Tools:** Questionnaires and interview guides will be designed to collect data from stakeholders. These will be tailored to each group (contractors, project managers, government officials, and residents) to capture each group's unique perspectives and experiences.
- **Recording Devices:** Audio and video recording devices for interviews and focus group discussions to ensure that responses are accurately captured for analysis.
- **Data Collection Forms:** Structured forms for survey data collection, ensuring consistency and reliability when gathering quantitative data from contractors, clients, and stakeholders.
- **Access Permissions and Ethical Approvals:** Necessary permissions and ethical clearance from relevant authorities (e.g., local government, contractors, and research ethics committees) to collect primary data from stakeholders, especially in sensitive areas like land acquisition and financial disputes.

2.2.2. Secondary Data Materials

- **Government Reports and Documentation:** Access to reports from the Rwanda Transport Development Agency (RTDA), Ministry of Infrastructure (MININFRA), and other relevant authorities regarding road construction projects, dispute resolution mechanisms, and project outcomes.
- **Academic Papers and Previous Studies:** Literature on road construction, dispute causes, and dispute resolution in similar contexts, which will help contextualise the findings.
- **Legal Documents:** Copies of contracts, agreements, and other legal documents related to ongoing and past road construction projects in Kigali, which will provide insight into common contractual challenges and issues.

2.2.3. Software and Analytical Tools

- **Statistical Analysis Software:** Programs such as SPSS, Excel, or R for analysing quantitative survey data, identifying trends, and running statistical tests.
- **Qualitative Data Analysis Software:** Software like NVivo or Atlas. Time for organising and analysing qualitative interview data, transcribing and categorising responses, and identifying key themes related to disputes.
- **Geographical Information Systems (GIS):** If applicable, GIS software can be used to map project locations, land acquisition issues, and community impacts at a geographic scale to visualize conflict areas.

2.2.4. Literature and Theory Reference Materials

- **Books and Journals on Construction Law and Project Management:** These materials will provide theoretical frameworks for understanding construction disputes, particularly in road infrastructure projects.

- **Dispute Resolution Frameworks:** Reference materials on alternative dispute resolution (ADR) mechanisms, including arbitration, mediation, and negotiation strategies, used in the construction and infrastructure sectors.

3. Methodology

The research will adopt a mixed-methods approach, combining both qualitative and quantitative research methods to collect comprehensive data on the causes, impacts, and solutions to disputes in the road construction sector.

3.1. Qualitative Methods

- **Interviews:** Semi-structured interviews with key stakeholders (e.g., contractors, project managers, legal professionals, government officials, and community representatives) will be conducted. These interviews will explore the deeper causes of disputes and provide insights into how stakeholders perceive the issues and possible solutions.
- **Focus Groups:** Discussions with groups of stakeholders, such as contractors, clients, or community members, will be held to understand common experiences and challenges.
- **Case Studies:** Detailed case studies of specific road construction projects that have encountered significant disputes will be developed. These will be used to identify recurring patterns and highlight the practical challenges faced during project implementation.

3.2. Quantitative Methods

- **Surveys:** Structured questionnaires will be distributed to a larger sample of stakeholders in the road construction sector. The surveys will measure the frequency of specific types of disputes, the financial and social impacts of those disputes, and the effectiveness of current dispute resolution practices.
- **Statistical Analysis:** Data from the surveys will be analysed to quantify the relationships between dispute causes and their impacts. This will help identify the most prevalent issues and how they affect project success.

3.3. Expected Outcome

The combination of qualitative and quantitative data collection methods will lead to a deeper understanding of:

- The most common causes of disputes in Kigali’s road construction sector are:
- The financial, social, and operational impacts of these disputes on project timelines, costs, and quality.
- The effectiveness of current dispute resolution strategies, including ADR mechanisms and contract management practices.
- Recommendations for reducing disputes, improving contract management, and optimising communication among stakeholders.

In summary, the requirements analysis and materials section outlines the tools, data sources, and methods needed to conduct a comprehensive study of disputes in the road construction sector in Kigali City, Rwanda. These materials and methods will help uncover key insights into the sector's challenges and inform recommendations to reduce disputes.

3.4. Research Design

The study design focused on analysing the causes and Impacts of disputes in the Rwanda Road Construction Sector and on determining ways to reduce them. Case study: Kigali city, Rwanda, is displayed in Table 1:

Table 1: Used methodology for the study

Objectives	Hypotheses	Methodology	Statistics
To identify the causes of disputes in road construction projects in Kigali	Poor contract management practices significantly contribute to disputes in Kigali's road construction sector.	- Qualitative approach: Semi-structured interviews with contractors, government officials, and project managers. - Case study analysis of ongoing and completed projects.	- Descriptive statistics (frequencies and percentages) of common causes of disputes. - Thematic analysis of interview data.

To assess the impacts of disputes on road construction projects in Kigali	Disputes in road construction projects lead to significant cost overruns and delays.	- Quantitative approach: Surveys of contractors, project managers, and clients to quantify the financial and temporal impacts.	- Inferential statistics (Chi-square tests, correlations) to assess the relationship between disputes and project delays/cost overruns.
To examine the effectiveness of current dispute resolution mechanisms	Alternative dispute resolution (ADR) mechanisms, such as mediation, reduce the frequency and intensity of disputes.	- Mixed methods: Survey data on the use of ADR mechanisms and interview data to explore experiences with ADR.	- Descriptive statistics (frequencies and percentages) on ADR usage. - Comparative analysis of ADR vs non-ADR outcomes using t-tests or ANOVA.
To recommend ways of reducing disputes in road construction projects	Implementing clearer contract terms and communication strategies will reduce the occurrence of disputes.	- Action research: Analysing best practices and proposing contract management strategies and communication improvements.	- Content analysis of contract terms, and pre-and post-intervention comparisons in the use of recommended practices
To evaluate the role of external factors (e.g., land acquisition, weather) in disputes	External factors, such as land acquisition issues and adverse weather conditions, significantly contribute to disputes.	- Qualitative and quantitative methods: Interviews with local communities and contractors about land acquisition and weather-related issues.	- Correlational statistics to assess the relationship between external factors and dispute frequency.

3.5. Presentation of the Study Area

Kigali City, the capital of Rwanda, is the focal point of this study due to its rapid urbanisation, growing population, and significant infrastructure development, including road construction. Spanning approximately 730 square kilometres and home to a population exceeding 1.2 million, Kigali faces challenges including hilly terrain, increasing infrastructure demand, land acquisition issues, and financial constraints. The road network in Kigali is expanding, with both primary and urban roads being upgraded, though there remain concerns about funding, environmental impacts, and traffic congestion. These factors create an ideal setting to explore the causes, impacts, and dispute-resolution strategies in the road construction sector.

The road construction sector in Kigali involves a wide range of stakeholders, including government agencies, contractors, local communities, and legal professionals, all of whom contribute to or are impacted by disputes. Common types of disputes include contract issues, financial management, land acquisition, project delays, and construction quality. To address these conflicts, the Rwandan government has implemented mechanisms such as Alternative Dispute Resolution (ADR), government oversight, and dispute resolution committees. This study will examine these disputes and mechanisms, aiming to provide insights on how to improve project outcomes and reduce disputes, thus contributing to sustainable urban development in Kigali.

3.5.1. Sampling Methods and Techniques

The target audience was split into three groups: client organisations, contractors, and consulting firms. The researcher got a list of contractors and consulting businesses from RTDA and RPPA. For customer organisations, local government District Engineers and MININFRA were considered. The researcher readily obtained the data they needed by grouping respondents by job title or seniority. Cluster sampling procedures were used to determine the sample size, and questionnaires were distributed randomly. This method was chosen because the research area is narrow; respondents were asked if they had worked on road construction before. To prevent tiny samples, however, the contractor's category aimed for a sample size of 50, the project consultants' category aimed for 40, and the clients' representatives' category aimed for 30. The lists used to pick samples from both the contractor and consultant groups were from 2024.

3.5.2. Population of the study

The study population comprises the individuals or entities from whom data will be collected to analyse the causes and impacts of disputes in the road construction sector in Kigali, Rwanda. The study will focus on key stakeholders directly involved in road construction projects within the city. These stakeholders include individuals and organisations that are likely to experience or influence disputes during the execution of road construction projects, as well as the program evaluation population (100) listed in Table 2:

Table 2: Research population

Contractor's Category	Project Consultants	Client	Total
50	40	30	120

3.5.3. Sampling Techniques

The sample size was calculated based on the total population of technicians in Kigali, with a 95% confidence level and a 5% margin of error. This combination of methods captured diverse perspectives and experiences, providing actionable insights into the construction technician role (Table 3).

Table 3: Sample of study

Contractor's Category	Project Consultants	Client	Total
25	20	15	60

3.5.4. Sample Size

The sample size will be determined based on the overall population of project managers in Kigali. A minimum sample size of 60 participants will be targeted to provide a statistically significant basis for analysis. This sample was included approximately:

- 25 Contractor's category
- 20 Project consultants
- 15 Clients

3.5.5. Criteria of Participants' Selection

The criteria for selecting participants in this study are designed to ensure that the data collected is relevant, comprehensive, and reflective of the various perspectives involved in road construction disputes in Kigali, Rwanda. Participants will be selected based on their direct involvement in the road construction sector and their ability to provide meaningful insights into the causes, impacts, and strategies for reducing disputes.

3.5.6. Data Collection Techniques and Instruments

The study employed both qualitative and quantitative methods, including surveys, interviews, and focus groups, to gather data on program awareness, accessibility, and the perceived effectiveness of construction project management.

3.5.7. Type of Data and Techniques of Data Collection

Table 4 below shows the data type and the data collection techniques.

Table 4: The type of data and techniques of data collection

No.	Activities	Techniques	Instruments
1.	Survey	Questionnaires	Online surveys using Google Forms
		Interviews	Structured interviews
		Focus groups	Group discussions with predefined questions
2.	Observation	Direct observation	Observing participants' interactions with the system
		Video recording	Recording driving sessions to analyse behaviour
		Field notes	Written notes on observed behaviours and system usage
3.	Data Analytic	Data mining	Analysing large datasets to identify patterns and trends
		Statistical analysis	Applying statistical tests to quantify system performance
		Machine learning algorithms	Developing predictive models based on historical data

3.5.8. Data Collection Method

The data collection method for this study was designed to capture both qualitative and quantitative data on the causes, impacts, and strategies for reducing disputes in the road construction sector in Kigali. Multiple data collection methods will be employed

to ensure a comprehensive understanding of the issues. These methods will include surveys, interviews, and document analysis, tailored to the specific stakeholder groups involved in the study. Surveys were used to collect quantitative data from a large number of stakeholders involved in road construction projects in Kigali. The surveys will be designed to capture responses on key aspects of disputes, including causes, impacts, and existing dispute resolution mechanisms. The use of structured questionnaires will allow for consistent data collection and easier analysis.

3.5.9. Data Collection Instruments

For this study, various data collection instruments were used to gather both quantitative and qualitative data on the causes, impacts, and strategies for reducing disputes in the road construction sector in Kigali, Rwanda. The selection of appropriate instruments is crucial to ensuring that data is collected systematically, accurately, and comprehensively from the target participants.

3.6. Administration of Data Collection Instruments

The researcher self-administered the data-gathering instruments in the study. This paper used a questionnaire and an interview guide as research tools. The researcher personally administered the instruments to the respondents. There were two types of tools: questionnaires and an interview guide. The questionnaire gathered quantitative data, but the interview guide collected qualitative data. The researcher preferred the questionnaire for data collection as it is appropriate for high sample sizes. The interview guide was the second source of information used in this investigation.

The researcher had an interview with the district engineer responsible for the school building. The interview's goal was to add to the information gathered from the questionnaires. The interview guide was appropriate for the specified responders due to time constraints and significant responsibilities. The researcher directly administered the data-collection equipment in this study to ensure accuracy and consistency in the data-gathering procedure. Two main tools were used: a questionnaire and an interview guide:

- **Data Collection Instruments:** For the Design and implementation of an automatic car washer and payment system. In a case study in Rwanda, a combination of qualitative and quantitative data collection instruments was used to ensure comprehensive and reliable information. These instruments are designed to capture relevant data on the needs of automatic car washers and payment systems.
- **Data Analysis Techniques:** The data collected to analyse the causes and Impacts of disputes in the Rwanda Road Construction Sector and to determine ways to reduce them. A case study of Kigali city, Rwanda, was analysed using a combination of qualitative and quantitative methods to provide a comprehensive understanding of the technology's feasibility, effectiveness, and potential for scaling up. The chosen analysis methods helped interpret the data in relation to the study's objectives, hypotheses, and research questions.

4. Results and Discussion

After reviewing the different answers, researchers identified the main problems common to all groups. According to this research, disputes in the Rwandan road construction industry can be avoided by maintaining accurate contract records, following work programs, ensuring that everyone involved in the contract can communicate, and establishing alternative dispute resolution centres. For these results to be useful, policymakers, high-ranking government officials, stakeholders, and funding organisations should take ownership and work to implement them. In addressing the study questions presented in paper one, all findings articulated in this paper must be critically acknowledged and adhered to to mitigate disputes within the road building sector in Rwanda.

4.1. Strength

This study is distinguished by its comprehensive approach to identifying and analysing the causes and impacts of disputes in the Rwandan road construction sector, particularly in Kigali City. By examining key factors such as inadequate contract management, unclear contract documentation, and poor communication between stakeholders, the research highlights critical issues that contribute to disputes. Additionally, the study provides practical recommendations for addressing these issues, including proper record-keeping, adherence to work programs, and the establishment of alternative dispute resolution (ADR) centres. These findings are valuable for improving the management of road construction projects. They can be applied not only in Kigali but also across Rwanda's growing infrastructure sector, contributing to more efficient project execution and reducing legal and financial risks.

4.2. Limitations

One challenge is the potential difficulty in implementing the recommended solutions across the diverse range of stakeholders involved in road construction projects, including contractors, government agencies, and local communities. Resistance to change, lack of awareness of the benefits of ADR methods, and insufficient resources may hinder their adoption. Furthermore, the study focuses primarily on the road construction sector in Kigali, which may not fully capture the broader challenges faced by the construction industry in other parts of Rwanda. This limitation suggests that further research could explore the application of these findings in different regions and examine the scalability of these solutions to other sectors of infrastructure development.

5. Conclusion and Recommendations

This study critically reviewed the causes and impacts of disputes in Rwanda's road construction sector, identifying key issues that contribute to conflicts. Major causes include inadequate contract management and contractor supervision, insufficient clarity and factual information from consultants, and discrepancies in client-provided contract documents. Ambiguities such as incomplete designs, unclear terms, and the absence of essential procedures (e.g., health and safety guidelines, environmental policies) were found to be significant contributors to disputes. The study also found that, as in other countries such as the UK and Malaysia, failure to monitor contract implementation, the use of inexperienced workers, and poor planning often lead to conflicts. Disputes negatively impact the company's reputation, profitability, and project timelines, with delays, cost overruns, and management expenses being the most significant issues.

The study also explored dispute resolution strategies employed in the Rwandan road construction sector, revealing that negotiation, followed by arbitration and adjudication, are the most commonly used methods. Disputes related to delays, payment, and contract terms were most frequent. Recommendations include promoting the use of negotiation and other Alternative Dispute Resolution (ADR) methods to reduce the reliance on costly litigation. Proper record-keeping, adherence to work programs, and the establishment of ADR centres were highlighted as essential strategies for preventing disputes. The study calls for better contract management, more training for professionals on dispute management, and the establishment of arbitration boards to streamline dispute resolution. Additionally, the research suggests more awareness and research into ADR methods to improve the Rwandan road construction sector's approach to dispute resolution.

List of Abbreviations

- **UPAFA:** University Private African Franco-Arabe
- **ADR:** Alternative Dispute Resolution
- **USA:** United States of America
- **Rwf:** Rwandan Francs
- **UK:** United Kingdom
- **FIDIC:** Fédération Internationale Des Ingénieurs-Conseils
- **RTDA:** Rwanda Transport Development Authority
- **MININFRA:** Ministry of Infrastructure
- **RPPA:** Rwanda Public Procurement Authority
- **MRT:** Mass Rapid Transit
- **KIAC:** Kigali International Arbitration Centre
- **NTB:** National Tender Board
- **PSF:** Private Sector Federation
- **DRB:** Dispute Resolution Boards
- **CADR:** Centre for Arbitration and Dispute Resolution

Acknowledgement: The authors thank the academic staff of the University Private African Franco-Arabe (UPAFA), Lebanese French University of Technology and Applied Sciences (ULF), and Dhaanish Ahmed College of Engineering for their support and efforts in making this paper a success.

Data Availability Statement: The data supporting the findings of this study are available from the corresponding author upon request. Access is provided to maintain research integrity and transparency, and to facilitate further academic verification and reproducibility.

Funding Statement: This research was conducted without external funding from any public or private funding agency.

Conflicts of Interest Statement: The authors declare no conflict of interest.

Ethics and Consent Statement: All authors affirm their approval for this work to be made publicly accessible. The study was conducted in accordance with established ethical standards, and the authors support its availability for scholarly use and educational purposes.

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