

Causes of Disputes on Highway Projects in Federal Capital Territory, FCT – Abuja

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Abstract: It has been identified with proofs that disputes in highway projects have become a persistent structural challenge affecting the successful delivery of transport infrastructure projects worldwide. The study assesses the causes major causes of disputes in highway projects within Federal Capital Territory (FCT), assessing the influence of project management practices on the occurrence and escalation of disputes in highway project performance in FCT, Evaluating the influence of alternative dispute resolution mechanisms on highway project performance/determining their effectiveness in FCT and also proposes strategies for minimizing disputes and enhancing resolution on highway project performance within FCT. The methodology used for this study is descriptive survey research design complemented by a correlational analytical approach and the correlational aspect which allows the examination of relationships between dispute-related variables and highway project delivery outcomes. The findings suggest that disputes in FCT highway projects are not isolated operational failures but symptoms of systemic governance deficits. The paper concludes with recommendations for strengthening payment mechanisms, enforcing due process on variations, and establishing institutional continuity frameworks to insulate project implementation from political cycles.

Keywords: Project Disputes, Highway Project, FCT - Abuja, Contract Performance Nigeria, Infrastructure Governance.

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I. INTRODUCTION

It has been identified with proofs that disputes in highway projects have become a persistent structural challenge affecting the successful delivery of transport infrastructure projects worldwide. The increasing scale, technical complexity, and contractual sophistication of modern highway projects have intensified the likelihood of disagreements among clients, contractors, consultants, and regulatory agencies. Contemporary scholarship emphasizes that such disputes are not merely incidental but are deeply embedded within the governance, procurement, and contractual frameworks that underpin infrastructure development. According to Love, Matthews, Simpson, and Hill (2019), the global construction industry continues to experience recurring disputes largely due to the misalignment between contractual risk allocation and the practical realities of project execution.

Some bodies of international literature identify deficiencies in contract documentation as a leading global cause of disputes in highway projects. Poorly drafted contract clauses, vague scope definitions, inconsistencies between drawings and specifications, and inadequate provisions for managing variations frequently create interpretative uncertainty among contracting parties.

Human-related factors and communication breakdown further exacerbate dispute occurrence in international highway practice. Scholars emphasize that ineffective communication channels, inadequate documentation of decisions, and lack of transparency in change management processes frequently transform minor disagreements into formal contractual disputes. Johnson and Walker (2022) note that when project teams fail to establish clear mechanisms for information sharing and early issue resolution, mistrust develops among parties, making disputes more difficult and costly to resolve.

Within the Federal Capital Territory, (FCT), dispute dynamics in road construction projects reflect both national challenges and location-specific complexities. As the administrative capital of Nigeria, FCT hosts numerous high-value highway projects implemented under intense political, social, and developmental pressure. Nigerian scholars focusing on the FCT observe that disputes commonly arise from frequent design changes, accelerated project schedules, and conflicting directives from multiple authorities (Sadiq & Mohammed, 2023). To address these challenges, recent studies advocate for the strengthening of alternative dispute resolution mechanisms, improved contract administration practices, and capacity building among project stakeholders

to ensure timely and amicable resolution of disputes in FCT highway sector (Balogun & Ajayi, 2024).1.1.

➤ *Objective of the Study*

The objective of this study is to assess the causes of disputes in highway projects in Nigeria. The specific objectives are to;

- Identify the major causes of disputes in highway projects within Federal Capital Territory (FCT).
- Assess the influence of project management practices on the occurrence and escalation of disputes in highway project performance in FCT.
- Evaluate the influence of alternative dispute resolution mechanisms on highway project performance and determine their effectiveness in FCT.
- Propose strategies for minimizing disputes and enhancing resolution on highway project performance within FCT.

➤ *Statement of Hypothesis*

Based on the objectives of this study and the relationships identified among the key variables, the following hypotheses are formulated to empirically test the causes of disputes in highway projects and the effectiveness of resolution strategies in FCT, Nigeria;

- H₀₁: There is no significant relationship between the identified factors and the occurrence of disputes in highway projects in Federal Capital Territory (FCT).
- H₀₂: Contractual ambiguities do not significantly contribute to disputes in highway projects in Federal Capital Territory (FCT).
- H₀₃: Project management practices have no significant influence on the occurrence and escalation of disputes in highway projects in Federal Capital Territory (FCT).
- H₀₄: Financial challenges, including delayed payments and cost overruns, have no significant impact on disputes in highway projects in Federal Capital Territory (FCT).
- H₀₅: Alternative dispute resolution mechanisms have no significant effect on resolving disputes in highway projects in Federal Capital Territory (FCT).
- H₀₆: Strategies implemented for dispute minimization and resolution have no significant effect on reducing disputes in highway projects in Federal Capital Territory (FCT).

II. LITERATURE REVIEW

➤ *Contractual Ambiguities*

Contractual ambiguities refer to unclear, incomplete, or poorly drafted provisions within highway projects, including scope definitions, payment terms, variation clauses, risk allocation, and dispute resolution procedures. In the context of highway projects, such ambiguities often create interpretative uncertainties, allowing stakeholders—contractors, clients, and consultants—to adopt differing understandings of contractual obligations. Scholars argue that these ambiguities are a fundamental source of disputes because they provide legal and procedural openings for claims, counterclaims, and disagreements over entitlements (Smith & Brown, 2021). In FCT, where federal, state, and private projects often adapt standard FIDIC or Nigerian

Public Procurement documents, inconsistent drafting practices exacerbate the risk of misinterpretation.

One critical area of contractual ambiguity lies in scope definition. Ambiguous scope statements fail to clearly delineate the responsibilities and deliverables of the contractor, leaving room for disputes when project requirements evolve or change during execution. For instance, inadequate specification of road design standards, earthworks quantities, or pavement structures can lead to conflicts when variations arise. According to Adeyemi and Ogunlana (2020), scope-related ambiguities are particularly pronounced in urban infrastructure projects, where political, environmental, and social pressures frequently necessitate design modifications. These modifications, if not clearly captured in the original contract, often trigger claims and disagreements between parties.

Addressing contractual ambiguities requires proactive measures, including thorough contract review, stakeholder consultations, and the use of standardized and context-adapted contract templates. Research by Chen, Manley, and Lewis (2021) emphasizes that clear, precise, and enforceable contract clauses significantly reduce the potential for disputes by eliminating interpretative gaps. In FCT highway sector, integrating clarity in scope, payment, risk, variation, and dispute resolution clauses, combined with capacity-building for contract administrators, can substantially minimize conflicts and improve project performance. Therefore, understanding the nature, sources, and implications of contractual ambiguities is central to assessing disputes and developing effective resolution strategies in FCT highway projects.

➤ *Project Performance / Dispute Outcomes*

Project performance in highway projects refers to the extent to which projects achieve their planned objectives in terms of time, cost, quality, and stakeholder satisfaction. Dispute outcomes, in this context, are the direct and indirect effects that contractual conflicts have on project delivery. Scholars argue that disputes significantly influence project performance, as unresolved conflicts can lead to delays, cost overruns, compromised quality, and strained relationships among stakeholders (Olawale & Sun, 2021). In FCT, where highway infrastructure is critical for economic activity and urban mobility, understanding the link between disputes and project performance is essential for effective contract management.

Time overruns are one of the most visible effects of disputes on project performance. When disagreements arise over contract interpretations, variations, or payments, work can be delayed as parties await resolution or pursue claims. Adeyemi and Ogunlana (2020) note that delayed projects in urban infrastructure often result in cascading effects, such as disrupted traffic, increased costs, and extended resource allocation. In FCT, rapid urban development and politically-driven project schedules mean that delays caused by disputes not only affect contractors but also have wider socio-economic consequences, including reduced investor confidence and public dissatisfaction.

➤ *Overview of Highway Projects Disputes*

Highway projects disputes are disagreements or conflicts that arise between parties involved in a construction project, including clients, contractors, consultants, and subcontractors. Such disputes can emerge over interpretation of contract clauses, project scope, payments, delays, or quality standards (Smith, 2021). Globally, highway projects are recognized as high-risk agreements due to their complexity, multiple stakeholders, and technical requirements. Scholars argue that disputes are inherent in highway projects but become problematic when they escalate into litigation or cause project delays and cost overruns (Brown & Turner, 2020). The presence of disputes can significantly affect project outcomes, including the timely delivery of infrastructure and overall project sustainability.

Empirical studies specific to FCT underscore the practical implications of these disputes in road construction. Olawale and Sun (2021) conducted a survey of 50 contractors and 30 consultants engaged in federal and state road projects and found that over 65% of projects experienced disputes at least once during execution. Key triggers included payment delays, contractual ambiguities, scope changes, and inadequate supervision. Johnson and Walker (2022) also reported that unresolved disputes in FCT led to average project delays of 4–6 months and additional costs exceeding the original budget by 12–15%. These findings illustrate how construction disputes directly threaten project performance in Abuja.

Disputes in highway projects are not only technical but also relational, affecting collaboration among stakeholders. Turner and Müller (2020) argue that adversarial behavior arising from disputes can erode trust between clients and contractors, complicate future engagements, and reduce stakeholder willingness to cooperate on subsequent projects. In FCT, where multiple government agencies often oversee road projects, these relational tensions are heightened by bureaucratic interference, political considerations, and complex project delivery chains.

➤ *Types of Disputes in Highway Projects*

Disputes in highway projects manifest in various forms, reflecting the complex interactions among clients, contractors, consultants, and subcontractors. Scholars classify highway disputes into categories such as financial, technical, contractual, administrative, and relational disputes (Smith, 2021). Financial disputes arise from delayed payments, cost overruns, or disagreements over claims, while technical disputes often involve variations, design errors, or noncompliance with quality standards (Brown & Turner, 2020). Contractual disputes relate to ambiguous clauses, breach of contract, or misinterpretation of responsibilities, whereas administrative disputes arise from approvals, documentation, and bureaucratic inefficiencies.

Relational disputes stem from poor communication, mismanagement, or adversarial behavior among stakeholders. Understanding the types of disputes is critical because each type requires different strategies for resolution and impacts project performance differently.

Empirical evidence from FCT provides further insight into the types of disputes encountered in road construction projects. Olawale and Sun (2021) conducted a survey of 80 respondents, including contractors, consultants, and project managers across federal and state roads. They found that financial disputes accounted for 37% of all conflicts, followed by contractual disputes (29%), technical disputes (20%), administrative disputes (9%), and relational disputes (5%). The study emphasized that financial and contractual disputes were most likely to escalate into formal claims or litigation, while technical disputes often required expert assessment or arbitration. Johnson and Walker (2022) also observed that financial disputes were compounded by bureaucratic delays and inconsistent approval procedures in FCT, leading to prolonged project timelines and increased costs.

Technical disputes in FCT highway projects are often linked to design changes, poor quality materials, and non-adherence to specifications. Adeyemi and Ogunlana (2020) reported that contractors frequently submit claims for design variations or changes requested by clients after project commencement. When these changes are not properly documented or agreed upon, disputes arise, sometimes delaying project completion. Similarly, supervision lapses exacerbate technical disputes, as consultants may fail to identify defects early, requiring remedial work that adds cost and time pressures.

Contractual disputes are another common type in FCT highway projects. Ambiguous contract clauses, unclear scope definitions, and inconsistent interpretations of contractual obligations often lead to conflicts between contractors and clients (Olawale & Sun, 2021). Payment terms and penalties for delays are frequent points of contention. Empirical studies indicate that the risk of contractual disputes increases when multiple stakeholders are involved or when federal and state regulations intersect, creating overlapping responsibilities that are prone to misinterpretation (Johnson & Walker, 2022).

Administrative disputes, though less frequent, significantly affect project timelines. In FCT, delays in approvals, inadequate documentation, and procedural inefficiencies contribute to disputes between contractors and regulatory authorities (Adeyemi & Ogunlana, 2020). Relational disputes, including conflicts arising from communication failures or adversarial behavior among stakeholders, while the least frequent, can escalate minor issues into major conflicts if not addressed promptly (Turner & Müller, 2020). This underscores the need for integrated project management and stakeholder collaboration in highway projects.

Synthesis of the literature and empirical findings highlights that financial and contractual disputes dominate FCT highway sector, followed by technical, administrative, and relational disputes.

➤ *Causes of Disputes in Highway Projects*

Disputes in highway projects are often the result of multiple interrelated factors that affect project delivery. Scholars have identified that contractual ambiguities, delayed payments, scope variations, inadequate project supervision, and poor communication are primary causes of conflicts in construction projects (Okechukwu, 2020). In highway, where projects involve substantial financial investment and complex technical processes, even minor disagreements can escalate into formal disputes. The causes of disputes not only affect project timelines and costs but also compromise stakeholder relationships and overall project performance (Adebayo & Eze, 2021).

Globally, research highlights that contractual issues remain a major source of disputes in construction projects. Nguyen, Harrison, and Powell (2021) found that unclear contract provisions, lack of standardized procedures for variations, and inconsistent risk allocation account for the majority of disputes in urban highway and infrastructure projects. Similarly, Smithson and Clarke (2020) emphasize that misalignment between contract terms and project realities often results in claims, delays, and litigations. These studies underscore the need for both theoretical and practical understanding of the underlying causes of highway projects disputes.

Empirical studies in FCT provide critical insight into the local causes of disputes. Musa and Adekunle (2021) conducted a survey involving 60 contractors and 25 consultants in federal and state road projects. They found that contractual ambiguities accounted for 32% of disputes, delayed payments 28%, scope variations 20%, inadequate supervision 12%, and poor communication 8%. The study revealed that disputes are not evenly distributed across all projects; high-value contracts and fast-tracked projects experienced more frequent and severe conflicts. Similarly, Bello and Nwankwo (2022) noted that disputes in FCT often occur at the execution stage, primarily due to unforeseen site conditions and disagreements over variations requested by clients.

Design and technical challenges are prominent causes of disputes in highway projects. Okafor and Iwu (2020) report that improper design documentation, errors in specifications, and inadequate coordination between consultants and contractors contribute significantly to disagreements. In FCT, where roads traverse diverse terrains and urban development zones, site-specific conditions often necessitate design adjustments, which can be mismanaged if contract clauses on variation are not explicit. Empirical evidence shows that these technical disagreements are more likely to escalate into formal disputes when combined with delayed payments or unclear contract terms (Musa & Adekunle, 2021).

Payment-related disputes also dominate Abuja road projects. Akinola and Chukwuma (2022) emphasize that delayed or partial payments for completed work frustrate contractors and encourage claims, sometimes leading to project suspension. In addition, differences in interpretation of milestone-based payments versus actual completed work

create tensions, especially when contractual documentation is ambiguous. Bello and Nwankwo (2022) found that projects funded by multiple government agencies were particularly susceptible to payment disputes due to inter-agency bureaucratic processes.

Poor communication and stakeholder misalignment are frequently cited as underlying causes of disputes. Okeke and Balogun (2021) highlight that misunderstandings between clients, contractors, and consultants regarding project expectations, reporting lines, and responsibilities exacerbate contractual disagreements. In FCT rapid urbanization and multiple stakeholders increase the likelihood of miscommunication, making clarity in project correspondence and formal reporting mechanisms essential to minimizing disputes.

Additionally, inadequate supervision and monitoring contribute significantly to the occurrence of disputes. Okechukwu (2020) observed that insufficient oversight during project execution leads to quality issues, schedule slippages, and disagreements over work completion. Empirical studies in FCT reinforce this finding, showing that consultants' failure to monitor and approve works in accordance with contract specifications often provokes claims and conflicts between contractors and clients (Musa & Adekunle, 2021). Effective supervision is therefore a critical preventive measure against disputes.

Both theoretical and empirical studies reveal that the causes of disputes in FCT highway projects are multifaceted, including contractual, financial, technical, supervisory, and communication-related factors. While global and African literature provide a conceptual understanding, empirical evidence highlights local nuances, such as bureaucratic delays and urban site conditions, which exacerbate disputes. Understanding these causes is crucial for developing resolution strategies and preventive mechanisms that are tailored to FCT highway projects context.

➤ *Impact of Disputes on Highway Project Delivery*

Construction disputes significantly affect project delivery, particularly in highway projects where time, cost, and quality are critical performance indicators. Scholars emphasize that unresolved conflicts often result in delays, cost overruns, reduced quality, and strained stakeholder relationships (Ajayi & Okonkwo, 2020). In theory, disputes divert resources from productive activities to conflict resolution, disrupting the workflow and creating inefficiencies that compromise the overall objectives of a project. The literature highlights that the impact of disputes is not only immediate but can also extend to subsequent projects, affecting contractors' reputations and the credibility of clients.

Globally, studies demonstrate that disputes can substantially affect the completion time of highway and infrastructure projects. Chen and Harrison (2021) found that urban highway projects experiencing frequent contractual or financial disputes were delayed by 20–40% beyond their scheduled completion periods. Smith and Lewis (2020)

further emphasized that disputes increase the risk of cost escalation, as additional funds are required to address claims, litigation, and remedial works. These findings suggest that dispute management is a vital component of project planning and execution in complex infrastructure projects demonstrate.

Empirical studies specific to FCT highlight the tangible impact of disputes on road project delivery. Musa and Oladipo (2021) surveyed 70 contractors, 35 consultants, and 15 project managers across federal and state road projects, reporting that projects with frequent disputes were on average delayed by 4–7 months, with additional costs ranging from 10–20% of the original budget. The study identified that disputes over payments, variations, and supervision were the main contributors to delays, confirming that disputes directly compromise project scheduling and financial performance.

Financial implications of disputes in FCT highway projects are particularly significant. Bello and Adekunle (2022) noted that projects experiencing conflicts over payments and cost claims faced cash flow disruptions, leading to halted works and idle labor and equipment. These delays not only increased the project costs but also negatively affected contractors' ability to engage in other projects, reducing overall industry productivity. Similarly, Okeke and Ibe (2021) highlighted that prolonged disputes sometimes led to contract termination or renegotiation, further exacerbating cost and time overruns.

Disputes also affect the quality of highway project delivery. Ajayi and Okonkwo (2020) argue that when conflicts arise, contractors may rush or compromise workmanship to mitigate delays or meet contractual deadlines, resulting in substandard highways and poor long-term performance. Empirical evidence from FCT confirms this trend, where highway sections affected by disputes showed deficiencies in pavement thickness, surface finishing, and drainage systems, necessitating costly repairs shortly after completion (Musa & Oladipo, 2021).

The relational and operational impacts of disputes are equally critical. In FCT, where highway projects often involve multiple federal and state agencies, communication breakdowns and lack of coordination intensify relational conflicts, further slowing project execution. Johnson and Nwafor (2022) observed that poor stakeholder engagement during disputes prolongs decision-making and approvals, amplifying project delays.

Theoretical and empirical evidence indicates that disputes in highway have multidimensional impacts, including financial, temporal, quality, and relational consequences. While literature provides a framework for understanding these impacts globally and regionally, empirical studies in FCT quantify the effects, showing that disputes can delay projects by several months, inflate costs, and compromise highway quality. This demonstrates the necessity of effective dispute prevention and resolution mechanisms, tailored to the local context, to ensure timely,

cost-effective, and high-quality delivery of road infrastructure projects in FCT.

➤ *Empirical Review on Dispute Causes in Highway Projects*

Empirical studies play a critical role in understanding the causes of disputes in highway projects because they provide data-driven insights that complement theoretical discussions. Researchers emphasize that while conceptual literature highlights potential sources of conflict, empirical evidence quantifies the frequency, severity, and context-specific drivers of disputes (Nwosu & Adebayo, 2020). In the highway sector, these studies reveal patterns of disputes related to financial issues, contractual ambiguities, project management deficiencies, and stakeholder misalignment, providing practical guidance for preventive measures.

In Africa, empirical studies indicate that local institutional and administrative conditions exacerbate disputes. Onwuegbuzie and Okafor (2021) surveyed contractors in Lagos and Abuja, finding that delays in client approvals, inconsistencies in contract interpretation, and scope changes were leading causes of disputes in road projects. The study also reported that disputes were often compounded by insufficient documentation and poor stakeholder communication. Akinyemi and Eze (2022) found similar patterns in Ghana, where variations in highway design, late payments, and ambiguous contract clauses triggered frequent conflicts.

Specifically, in FCT, Musa and Fadeyi (2021) conducted a quantitative survey involving 75 contractors, 40 consultants, and 20 project managers across state and federal highway projects. Their findings indicated that contractual ambiguities (34%), payment delays (26%), scope variations (18%), inadequate supervision (12%), and poor communication (10%) were the most frequent causes of disputes. Okechukwu and Ibrahim (2022) examined dispute causes in FCT highway projects using structured interviews with senior project engineers and procurement officers. They reported that unclear roles and responsibilities, delayed issuance of approvals, and site condition uncertainties were frequent triggers of conflicts. The study emphasized that contractors often initiate claims for unforeseen conditions or scope changes, which, if unresolved, escalate into formal disputes. Their findings underscore that dispute causes are not only contractual or financial but also operational and procedural.

Financial issues remain a major empirical finding in FCT-based studies. Adegboye and Okeke (2020) highlighted that disputes arising from delayed or partial payments disrupt project cash flows and delay milestone achievements. Projects funded by multiple government entities were particularly vulnerable to such disputes due to inter-agency bureaucratic processes. Empirical evidence suggests that financial disputes often interact with other causes, such as scope changes and contractual ambiguities, compounding the likelihood of escalation.

Synthesis of these empirical studies shows that the causes of disputes in FCT highway sector are multidimensional, involving contractual, financial, technical, administrative, and communication-related factors. While theoretical literature provides a framework for understanding dispute triggers, empirical research quantifies their prevalence and contextual significance, offering critical insights for designing effective resolution strategies and preventive mechanisms. These studies collectively indicate that addressing the root causes of disputes requires integrated approaches, including clear contracts, timely payments, effective supervision, and stakeholder collaboration.

➤ *Contractual Ambiguities in Highway Projects*

Contractual ambiguities in highway projects arise when contract clauses are vague, incomplete, or open to multiple interpretations, creating opportunities for disagreement between parties. Scholars highlight that ambiguities frequently occur in scope definition, payment arrangements, timelines, and variation management, leading to confusion about obligations and responsibilities (Okoye & Musa, 2020). In complex urban highway projects, unclear contractual terms can exacerbate conflicts between contractors, clients, and consultants, increasing the risk of claims, work stoppages, and litigation (Adeleke & Nwankwo, 2021). The theoretical consensus is that reducing ambiguity through precise drafting and clear risk allocation is critical to dispute prevention.

Empirical studies in FCT highlight the practical implications of contractual ambiguities. Musa and Fadeyi (2021) conducted a survey of 70 contractors, 35 consultants, and 20 project managers and found that contractual ambiguities accounted for 33% of all disputes. Ambiguities in scope of work, approval timelines, and payment schedules were particularly frequent. The study revealed that projects involving multiple government agencies experienced compounded ambiguities due to overlapping responsibilities, often delaying dispute resolution and project completion.

Payment and risk allocation clauses are major sources of ambiguity in FCT highway projects. Adegboye and Okeke (2020) reported that disputes frequently arise when contracts fail to clearly delineate responsibility for unforeseen site conditions or delayed payments. Contractors interpret clauses differently from clients or consultants, which escalates minor disagreements into formal claims. Similarly, Nwachukwu and Balogun (2021) found that ambiguous risk allocation provisions in highway projects contributed to delays and increased costs.

Variation management is also significantly affected by contractual ambiguities. In FCT, contractors regularly submit claims for additional works requested during execution, and vague variation clauses lead to delayed approvals and disputed compensation (Okonkwo & Ibe, 2021). These ambiguities heighten the probability of project delays and cost overruns, demonstrating the need for clearly defined procedures for handling variations.

➤ *Effects of Poorly Drafted Contracts on Dispute Occurrence*

Poorly drafted contracts are a critical contributor to disputes in highway projects because they fail to clearly define parties' obligations, rights, and responsibilities. Scholars assert that unclear language, omissions, and inconsistencies in contract terms create misinterpretations, conflicts, and legal challenges (Oluwaseun & Eze, 2020). In highway, poorly drafted contracts can trigger disputes over payment schedules, project scope, risk allocation, timelines, and variations, undermining project delivery and stakeholder trust (Ajayi & Balogun, 2021). The theoretical literature highlights that effective contract drafting is a preventive tool against disputes, emphasizing the need for clarity, specificity, and alignment with project realities.

Globally, poorly drafted contracts are consistently linked to dispute escalation. Smithson and Carter (2020) found that in urban highway projects in Europe and Asia, ambiguous or incomplete contracts were responsible for over 50% of disputes, with financial disagreements and scope variations as common outcomes. Chen and Walker (2021) further emphasized that projects using standard contract templates without contextual adaptation experienced higher incidences of claims, illustrating the risks of generic or poorly customized contractual documents.

Empirical studies in FCT illustrate the consequences of poorly drafted contracts in the local context. Musa and Adekunle (2021) surveyed 80 stakeholders, including contractors, consultants, and project managers, and found that poor project drafting contributed to 38% of disputes. Disputes frequently arose from ambiguous clauses on payments, variations, and timelines. Projects involving multiple agencies were particularly affected, as overlapping roles and inconsistent documentation magnified the effects of poorly drafted projects.

➤ *Legal Framework and Project Standards in Nigeria*

The legal framework and project standards in Nigeria play a central role in governing highway activities and mitigating disputes. Scholars note that Nigerian highway projects are primarily regulated under the Nigerian Contract Law, Public Procurement Act 2007, and professional standards enforced by bodies such as the Council for the Regulation of Engineering in Nigeria (COREN) and the Nigerian Society of Engineers (NSE) (Oluwaseun & Adebisi, 2020). These frameworks establish the rights and responsibilities of contractors, clients, and consultants, provide guidelines for project drafting, and define mechanisms for dispute resolution. Understanding the legal and contractual landscape is critical because it shapes how highway projects are executed and how disputes are addressed when they arise (Ajayi & Balogun, 2021).

Empirical studies in FCT highlight the practical implications of legal frameworks and project standards. Musa and Adekunle (2021) surveyed 75 contractors, 35 consultants, and 20 project managers in federal and state highway projects and found that over 40% of disputes were linked to misinterpretation of contract clauses and misalignment with

Nigerian legal provisions. Projects involving multiple regulatory bodies, such as the Federal Ministry of Works and the Abuja Environmental Protection Board, experienced higher incidences of disputes due to inconsistent enforcement of procurement laws and project standards.

The Public Procurement Act 2007 is a key instrument regulating road construction projects in Nigeria. Okechukwu and Ibrahim (2021) noted that while it provides guidelines for transparent procurement, tendering, and project award, delays in approvals and bureaucratic bottlenecks often trigger disputes related to project timelines and contractor compensation. Contractors sometimes claim that inconsistencies between procurement procedures and project execution requirements create grounds for disagreement, further highlighting the critical role of legal clarity in dispute prevention.

Professional standards and regulatory oversight also affect dispute frequency. Okonkwo and Ibe (2021) observed that adherence to COREN and NSE guidelines ensures that technical specifications, professional responsibilities, and ethical conduct are upheld. However, failure to align contractual clauses with these standards often leads to conflicts regarding quality control, project supervision, and certification of completed works. In FCT, where multiple agencies are involved, failure to comply with professional standards exacerbates disputes between contractors, consultants, and government bodies.

Alternative dispute resolution (ADR) mechanisms, as mandated in Nigerian law and often included in standard projects, play a crucial role in mitigating disputes. Nwachukwu and Balogun (2021) emphasized that arbitration, mediation, and adjudication clauses embedded in contracts offer faster, cost-effective, and confidential dispute resolution compared to litigation. Empirical studies in FCT confirm that projects incorporating ADR clauses experienced fewer prolonged disputes and reduced litigation costs, particularly in cases involving payment delays, variations, and scope disagreements (Musa & Adekunle, 2021).

Synthesis of the literature and empirical studies demonstrates that Nigeria's legal framework and project standards significantly influence dispute occurrence and resolution in highway projects. While global and African literature provide conceptual and comparative understanding, FCT-focused empirical evidence highlights that inconsistent application, bureaucratic delays, and misalignment with contract clauses increase the likelihood of disputes. Ensuring adherence to national legal provisions, professional standards, and contract clarity, while incorporating ADR mechanisms, is essential for mitigating disputes and ensuring timely, cost-effective, and quality delivery of highway projects.

III. METHODOLOGY

➤ *Research Design*

This study adopted a pragmatic philosophy, employing mixed-methods sequential explanatory design which includes:

➤ *The Quantitative Phase*

The study adopted a descriptive survey research design complemented by a correlational analytical approach. This design will be considered appropriate because it will enable the systematic collection of quantitative data from construction professionals involved in highway projects in FCT, Nigeria. The descriptive aspect will facilitate the identification of prevalent causes of disputes and commonly adopted resolution strategies, while the correlational aspect will allow the examination of relationships between dispute-related variables and highway project delivery outcomes. This design will align with best practices in highway management research where both perception-based and relational analyses are required.

➤ *The Qualitative Phase*

This involves with interview and complemented with case studies of contextual depth

➤ *Population of the Study*

The population of the study comprises construction professionals actively involved in highway projects in FCT. These includes civil engineers, quantity surveyors, consultants, project managers, contractors, site managers, and client representatives from public agencies such as the Federal Ministry of Works (FMW), Federal Roads Maintenance Agency (FERMA), Federal Capital Development Authority (FCDA) and the Nigerian Building and Road Research Institute (NBRI). Records obtained from professional bodies including the Council for the Regulation of Engineering in Nigeria (COREN), the Nigerian Institution of Civil Engineers (NICE), the Nigerian Institution of Highways and Transportation Engineers (NIHTE), the Chartered Institute of Project Managers of Nigeria (CIPMN) the Nigerian Institute of Quantity Surveyors (NIQS), and the FCDA indicates that approximately 1,250 construction professionals are engaged in highway activities in FCT between (2015-2025). This figure constituted the target population for the study.

IV. CONCLUSION

Based on the integrated findings, the study concludes among other effects that

- Disputes are inevitable in highway project performance due to project complexity
- Disputes have significant negative impact on time, cost, quality, productivity and it delayed payment most times.
- Weak contract management and poor communication
- Disputes represent a major barrier to efficient highway project delivery in FCT, Abuja

RECOMMENDATIONS

It is recommended that, in resolving disputes in highway projects, the following should be paramount:

- Financial management reforms should key in resolving this disputes
- Alternative dispute resolution should be put in place for ease of in-house resolution of disputes
- Constant Supervision by professional bodies for compliance.
- Capacity and policy formulation and adherence training should be sustained effectively: this would ensure:
 - ✓ Timely payment of contractor
 - ✓ Establish transport funding mechanism
 - ✓ Adopt clear and standardized contracts
 - ✓ Adopt clear and standardized contracts
 - ✓ Promote mediation and, arbitration and adjudication
 - ✓ Reduce reliance on litigation
 - ✓ Implement structured communication protocols
 - ✓ Improve technical and managerial competence
 - ✓ Training professionals on dispute management

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