



## *RESEARCH ARTICLE*

### **THE INFLUENCE OF PROCUREMENT METHODS ON DISPUTE RESOLUTION MECHANISM CHOICE IN THE CONSTRUCTION INDUSTRY**

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#### **ABSTRACT**

Procurement methods shape contractual relationships, risk allocation, and communication structures in construction projects, thereby influencing both dispute occurrence and the selection of dispute resolution mechanisms. This study investigates how procurement methods affect dispute resolution mechanism choice in construction works procurement. A qualitative research design was adopted, combining a structured literature review with semi-structured interviews conducted in 2024 among key stakeholders in Port Harcourt, Nigeria. Data were analysed using qualitative content analysis. Findings indicate that traditional procurement systems, particularly design–bid–build, are more prone to disputes due to fragmented responsibilities and weak communication, whereas integrated procurement methods such as design–build and public–private partnerships promote clearer risk allocation and increased use of alternative dispute resolution (ADR) mechanisms. The study contributes a conceptual model linking procurement methods, dispute triggers, and dispute resolution pathways, and recommends the proactive integration of ADR mechanisms into procurement frameworks to enhance project outcomes.

**Keywords:** Procurement methods, dispute resolution mechanisms, construction industry

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## 1. INTRODUCTION

In the construction industry, increasing diversity in the types, structures, and complexities of works has led to equally diverse procurement arrangements that define how projects are planned, financed, designed, and executed. These procurement methods establish the contractual framework and working relationship between procuring entities and contractors, but the relationships they create are frequently strained by disputes arising at different phases of works execution. When such disputes are not properly managed or resolved, they can cause project delays, cost overruns, deviations from original designs, and serious damage to long-term business relationships, and in extreme cases may even result in contract termination and project abandonment (Aryal & Dahal, 2018).

Dispute resolution and the choice of dispute resolution mechanisms have therefore become critical concerns in the administration of construction procurement contracts. Dispute resolution mechanisms serve to uphold the integrity of the agreements between the procuring entity and the contractor as shaped by the adopted procurement method, ensuring that rights and obligations are enforced while allowing projects to progress (Kisi et al.,2020). In practice, procurement methods and dispute resolution mechanisms are intertwined: the way a procurement method allocates risk, defines responsibilities, and structures communication influences both the likelihood of disputes and the mechanisms the parties ultimately employ to resolve them (Lee et al.,2016).

From a practical perspective, understanding the interaction between procurement methods and dispute resolution mechanisms is essential for improving project delivery performance, minimizing conflict-related costs, and enhancing stakeholder relationships. Clients and contractors face mounting pressures to deliver projects on time and within budget while managing complex technical requirements and regulatory expectations, and poorly conceived procurement strategies can exacerbate conflict risk and escalate resolution costs (Lee et al., 2016). Embedding context-appropriate dispute resolution mechanisms—particularly alternative dispute resolution (ADR) processes such as negotiation, mediation, expert determination, and dispute review boards—within procurement frameworks offers a way to resolve conflicts more quickly, preserve working relationships, and reduce pressure on overburdened court systems (Kisi et al.,2020).

Theoretically, examining the link between procurement methods and dispute resolution mechanisms contributes to the broader body of knowledge on procurement management and construction law. Existing literature provides rich categorisations of construction procurement methods, including traditional design–bid–build, design and build, management-based systems, and integrated partnership models such as DBFO and DBOT/DBOOT (Ogunsanmi, 2014; Lee et al.,2016). Likewise, extensive work has been done on litigation and ADR mechanisms in construction, including negotiation, mediation, early neutral evaluation, dispute review boards, expert determination, conciliation, arbitration, and specialised courts and tribunals (Chapman, 1999). However, relatively few studies focus explicitly on how specific procurement strategies and contract structures shape the actual choice and sequencing of dispute resolution mechanisms in practice, particularly in developing-country contexts such as Nigeria.

Against this backdrop, the present study seeks to clarify the influence of procurement methods on dispute resolution mechanism choice in construction works procurement. The central research



problem can be stated as follows: despite the evident interaction between procurement design and dispute handling in construction projects, there is insufficient empirical evidence on how particular procurement methods, contract structures, and industry practices concretely affect both the emergence of disputes and the mechanisms used to resolve them in the Nigerian construction industry. This gap limits the ability of procuring entities, contractors, and regulators to design procurement frameworks that proactively manage dispute risks and embed effective, relationship-preserving dispute resolution pathways.

The aim of the study is to investigate how different procurement methods influence dispute resolution mechanism choice in construction works procurement, using evidence from industry stakeholders in Port Harcourt, Rivers State, Nigeria. In line with this aim, the specific objectives are to:

1. Identify the construction works procurement methods and dispute resolution mechanisms commonly used by key stakeholders in the study context.
2. Examine how procurement methods and their associated contract structures may trigger, shape, or mitigate disputes in construction works contracts.
3. Analyse how procurement frameworks and contract clauses influence the selection and sequencing of dispute resolution mechanisms when disputes arise.
4. Propose a conceptual model that links procurement methods, construction disputes, and dispute resolution mechanism choice, and derive practical recommendations for enhancing procurement success through better integration of dispute resolution planning.

To guide the investigation, the study adopts two working hypotheses derived from literature and preliminary observations. First, it is hypothesized that certain procurement methods—particularly those characterized by fragmented responsibilities, weak communication channels, and ambiguous contractual provisions—are more prone to triggering disputes in construction works contracts ( $H_1$ ). Second, it is hypothesized that procurement methods, through their embedded contract terms and dispute resolution clauses, provide frameworks against the risk of possible disputes and thereby recommend, narrow, or stereotype the dispute resolution mechanisms that parties are likely to use when conflicts arise ( $H_0$ ).

## **2.0. CONCEPTUALIZATION AND LITERATURE REVIEW**

### **Procurement methods in the construction industry**

Construction procurement methods are broadly understood as strategic arrangements that define how works are acquired, including how responsibilities, risks, and resources are allocated between procuring entities and contractors. In practice, these strategies are shaped by considerations such as cost, quality, time, complexity, financing, ownership, and management style, which together inform the selection and structuring of a suitable procurement method for each project (Ogunsanmi, 2014).

Based on field-oriented classifications developed by the UK National Economic Development Office (NEDO) and further discussed by Ogunsanmi (2014), four major “operations- and agreement-based” construction procurement methods are widely recognised: traditional procurement, design and build, management systems, and design and manage.

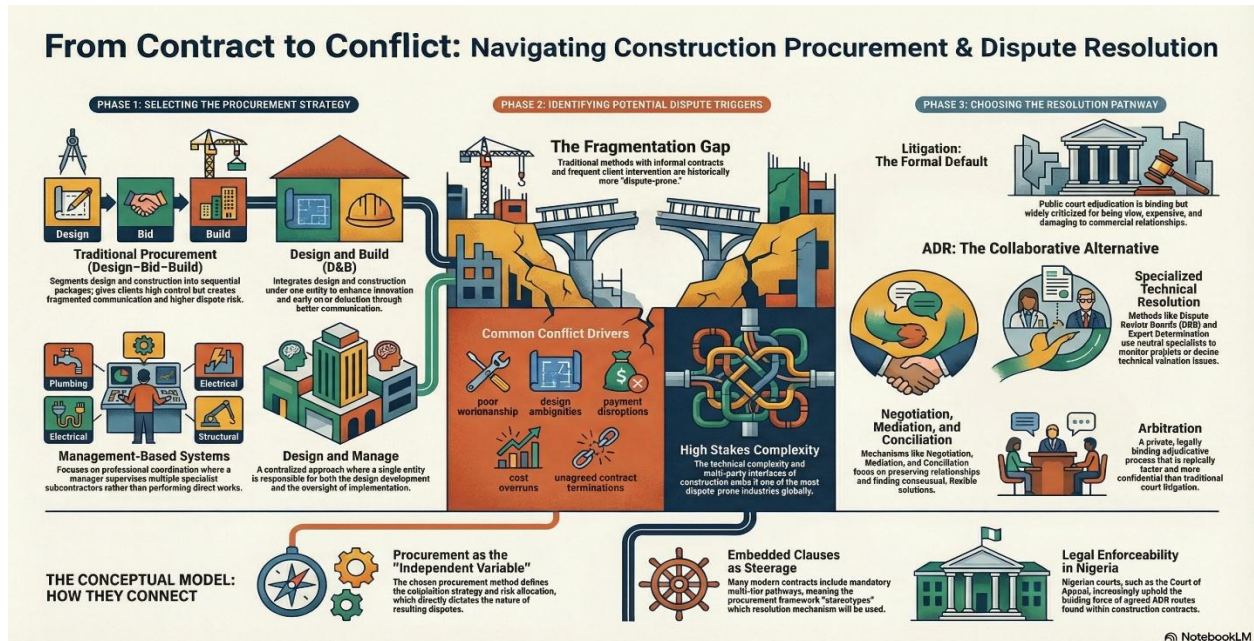


Figure 1. From Contract to Conflict: Phased Model of Construction Procurement, Dispute Triggers and Dispute Resolution Pathways

The traditional method—often referred to as “design–bid–build” or “general contracting”—segments design, tendering, supply, and construction into separate, sequentially contracted packages, giving the client strong direct control but also creating fragmented communication and limited opportunities for integrative team planning (Bennett, 1992; Ogunsanmi, 2014;). Empirical and practice-based accounts note that this fragmentation can foster information gaps, misunderstandings, adversarial relationships, and high dispute incidence, especially where contracts are informal or incomplete, and where the client frequently intervenes on site without a shared project vision (Gamage & Kumar, 2024).

As projects grow more complex, design and build procurement methods have been promoted to integrate design and construction under a single contracting entity, thereby enhancing communication, innovation, and early error detection (Bennett, 1992; Ogunsanmi, 2014). Rowlinson (1987), as cited in Ogunsanmi (2014), distinguishes between pure design and build (where design and construction capabilities are housed within one organisation), partially integrated design and build (where the main contractor outsources some design elements), and disparate design and build (where design is fully outsourced and construction follows traditional separation). Beyond these variants, partnership-based design and build models such as Design–Build–Finance–Operate (DBFO/DBO) and Design–Build–Own–Operate–Transfer (DBOT/DBOOT) incorporate long-term financing, operation, and risk-sharing arrangements, and are commonly used in public–private partnership (PPP) frameworks to align incentives and distribute risks across the project lifecycle.

Management-system-based procurement methods shift the focus from direct works provision to professional management services, whereby a management contractor or construction manager is engaged to plan, coordinate, and supervise multiple specialist subcontractors (Ogunsanmi, 2014). Popular variants include management contracting, construction management, project management, and the British Property Federation model, each emphasising coordination and oversight rather than

direct construction by the primary contractor. In some cases, the contractor is responsible for both design and project management, forming a “design and manage” method that centralises design development and implementation oversight in one entity, with implications for how risks and disputes are handled.

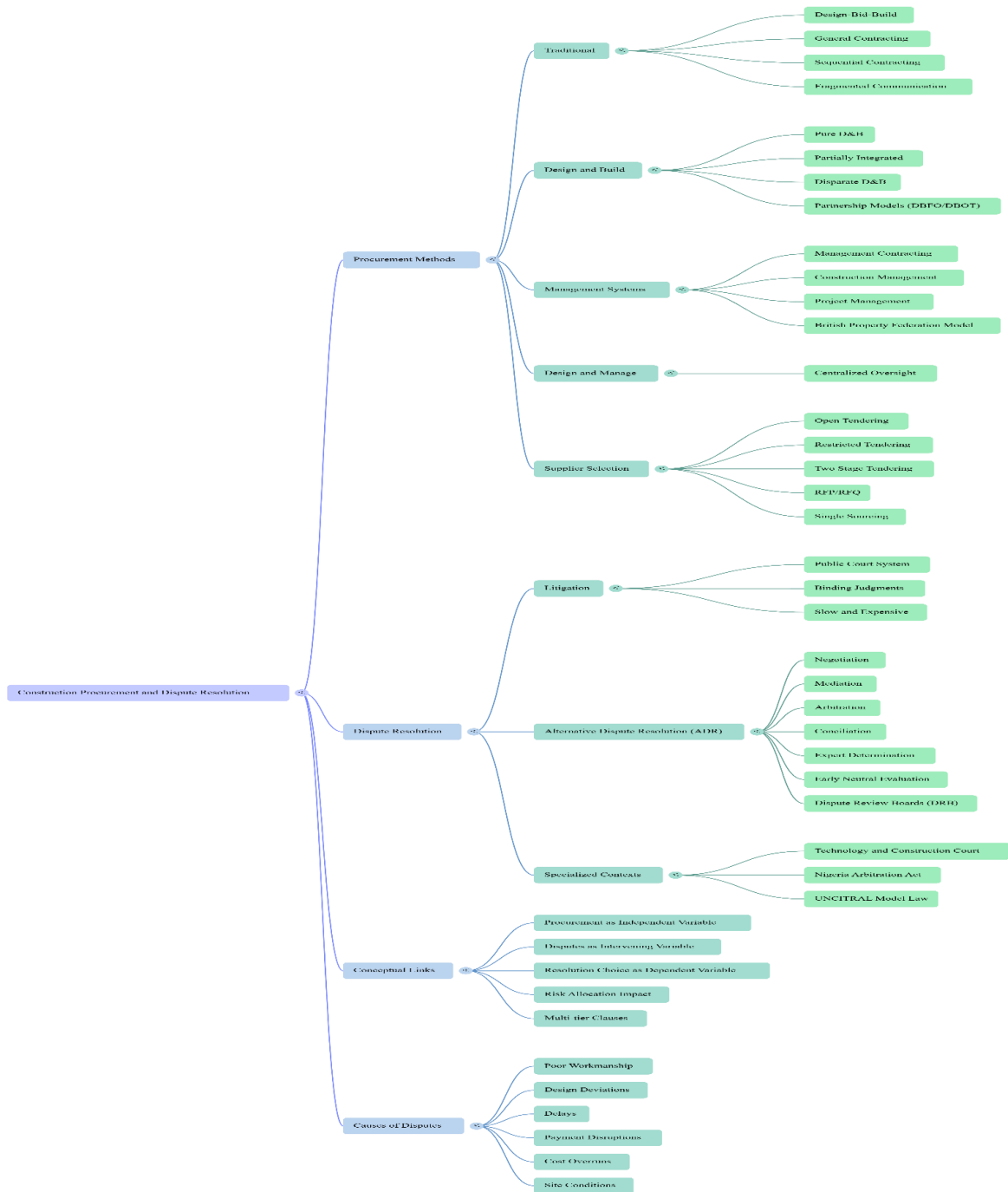


Figure 2: Mind Map of Construction Procurement Methods, Dispute Resolution Mechanisms, Conceptual Links and Causes of Disputes



In addition to these operations-based classifications, procurement methods are sometimes categorised by supplier-selection processes, including open tendering, restricted tendering, two-stage tendering, requests for proposals (RFP), requests for quotations (RFQ), and single-sourcing. However, these selection procedures are regarded as pre-contract instruments used to identify and choose a supplier rather than as full procurement methods, as they do not by themselves define the ongoing contractual relationship or the dispute landscape between the parties (Elhag et al. 2020). Overall, the construction industry is driven by operations- and agreement-based procurement methods that define detailed acquisition strategies and working relationships, and these methods vary in how clearly they allocate risk, structure communication, and embed dispute management provisions.

These variations in procurement structures have significant implications for dispute dynamics, as they influence communication pathways, contractual clarity, and risk allocation among project participants.

The main strands of the literature on procurement methods, dispute resolution mechanisms, conceptual links and dispute causes are synthesised in the mind map shown in Figure 2.

### **Dispute resolution in construction**

Dispute resolution mechanisms in construction are the formal and informal processes used to address disagreements that arise between parties in contractual relationships. Disputes are as old as human collaboration, and construction has long been recognized as particularly dispute-prone due to its technical complexity, multi-party interfaces, and high financial stakes (Silva et al., 2024). In construction works contracts, disputes may stem from issues such as poor workmanship, deviations from design specifications, errors or ambiguities in design and scope, delays, payment disruptions, cost overruns, differing site conditions, regulatory non-compliance, and unagreed contract termination, among others (Francis et al., 2025).

Litigation—formal adjudication through the public court system—has historically been the dominant mechanism for resolving serious construction disputes (Lawrence, 1989). Courts interpret and apply statutory and case law, and their judgments are binding and enforceable, but litigation is widely criticized in the construction context for being slow, expensive, procedurally complex, and highly adversarial, often damaging commercial relationships beyond repair. These drawbacks have contributed to a strong shift toward alternative dispute resolution (ADR) mechanisms in the construction industry.

ADR encompasses a range of processes conducted outside the courtroom, including negotiation, mediation, early neutral evaluation (ENE), dispute review boards (DRB), expert determination, conciliation, and arbitration (Rutherford et al., 2022). Negotiation involves the parties themselves engaging in structured dialogue to reach a mutually acceptable settlement without third-party intervention, and is often the first step in resolving construction contract disputes. Mediation introduces a neutral third-party mediator who facilitates communication and helps parties identify interests and options but does not impose a decision, preserving party autonomy and confidentiality while aiming for a consensual agreement. (Gamage & Kumar, 2024a)

Early neutral evaluation entails referring the dispute at an early stage to an independent expert who assesses the strengths and weaknesses of each party's position and provides a non-binding evaluation to guide settlement discussions, particularly in complex technical disputes. Dispute review boards



(DRBs) are panels of neutral experts established at contract formation to monitor major works projects, provide ongoing advice, and issue recommendations or determinations on disputes, and they have shown strong success in large civil engineering projects; institutions such as the World Bank and FIDIC have formally encouraged their use through procurement guidelines and standard contract amendments (Chapman, 1999).

Expert determination involves submission of specific technical or valuation issues to a neutral expert whose decision may be binding or advisory depending on the parties' agreement and is particularly suited to high-precision technical disputes in construction (Gamage & Kumar, 2024b). Conciliation, which has been described as a construction industry, resembles mediation but allows the conciliator to play a more directive role in proposing solutions and, in some frameworks, issuing recommendations that become binding unless rejected within a specified period (Bond, 2023). Arbitration, finally, is a private adjudicative process where one or more arbitrators hear evidence and arguments and issue an arbitral award that is legally binding and typically faster and more confidential than court litigation (American Arbitration Association, 2024).

In Nigeria, arbitration and conciliation are governed by the Arbitration and Conciliation Act, which provides the statutory basis for recognizing and enforcing arbitral awards (Okonma & Fagbohunlu, 2021). Internationally, conventions and model laws developed by bodies such as UNCITRAL and the New York Convention support the cross-border recognition and enforcement of arbitral awards, thereby facilitating dispute resolution in international construction procurement. In addition, some jurisdictions have established specialized courts and tribunals—such as the Technology and Construction Court in England and Wales—to deal with complex construction disputes, offering judges with technical expertise and streamlined procedures tailored to the sector (Mante et al., 2012).

Courts in Nigeria have increasingly recognized the importance of ADR clauses and settlements in construction and other commercial contracts, as illustrated in decisions such as *Folarin and another v. Idowu and others* (LPELR-22123 (CA)), where the Court of Appeal upheld the binding force of agreed ADR routes and resulting settlement agreements (Okorie, 2024). Overall, the literature suggests that while litigation remains available, ADR mechanisms are generally preferred in construction for their potential to reduce cost and delay, provide flexible and technically informed solutions, and preserve ongoing relationships.

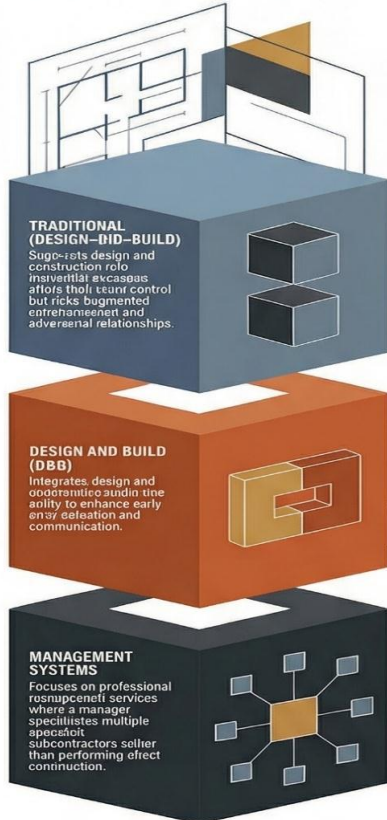
### **Integrated Relationship Between Procurement Methods, Construction Disputes, and Dispute Resolution Mechanisms**

Construction procurement methods define the contractual structure, allocation of responsibilities, and risk distribution among project participants, thereby influencing project performance and outcomes (Love et al., 1998). Traditional procurement systems, particularly design–bid–build, are associated with fragmented responsibilities and adversarial relationships, which increase the likelihood of disputes (Fenn et al., 1997). In contrast, integrated procurement approaches such as design–build promote collaboration and early contractor involvement, which contribute to reduced conflict and improved coordination (Elhag et al., 2020).

Disputes in construction projects arise from a combination of technical, contractual, and behavioral factors, including design errors, payment delays, scope changes, and ambiguities in contract

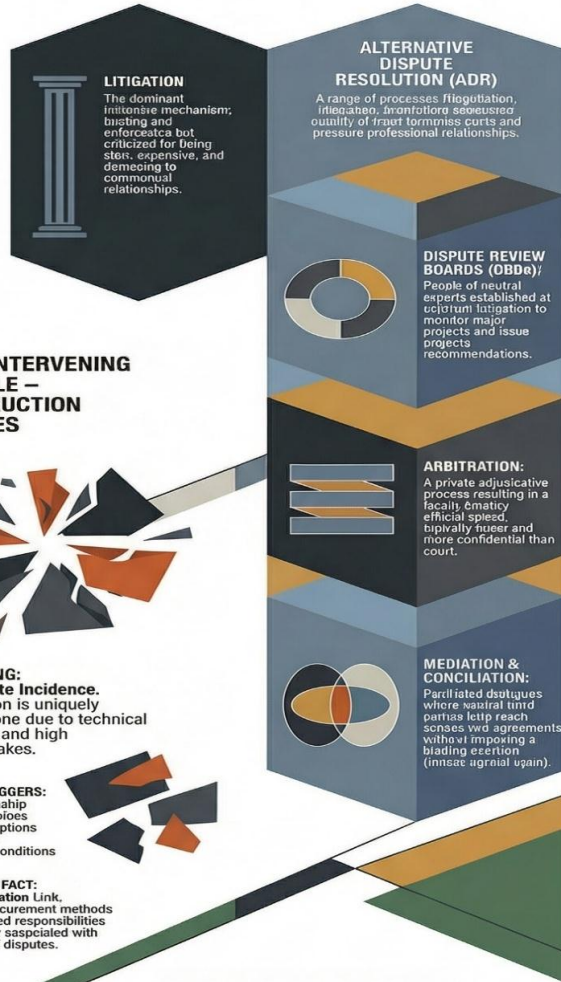
## THE ARCHITECTURE OF CONFLICT: LINKING PROCUREMENT TO DISPUTE RESOLUTION

### 1. THE STARTING POINT – PROCUREMENT STRATEGIES

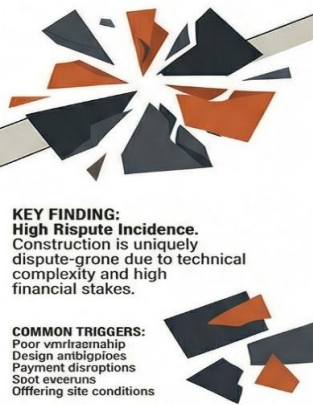


**SUPPORTING FACT:**  
Selection Instruments (Open Tendering, NFPs, RPOs) are pre-contract tools, not dispute landscape definitions.

### 3. THE RESOLUTION SPECTRUM – ADR VS. LITIGATION



### 2. THE INTERVENING VARIABLE – CONSTRUCTION DISPUTES



**SUPPORTING FACT:**  
**The Fragmentation Link.** Traditional procurement methods with fragmented responsibilities are historically associated with higher rates of disputes.

### 4. THE CONCEPTUAL LINK (HYPOTHESES)

**KEY FINDING H<sub>1</sub>:**  
Certain procurement methods are 'dispute triggering,' while integrated methods with clear risk allocation reduce dispute intensity.

**KEY FINDING H<sub>2</sub>:**  
Procurement frameworks act as a 'stereotype' for resolution, often prescribing multi-tier pathways that mandate negotiation or mediation before escalation.

**SUPPORTING FACT:**  
Legal Enforceability. Courts (notably in Nigeria) increasingly uphold the binding force of ADR clauses embedded within procurement contracts.

### ADR MECHANISMS SPECTRUM

MECHANISM	ROLE OF THIRD PARTY	OUTCOME
NEGOTIATION	None (Parties only)	Consensual
MEDIATION	Facilitator (Neutral)	Non-binding / Consensual
EXPERT DETERMINATION	Technical Expert	Binding or Advisory
ARBITRATION	Adjudicator (Arbitrator)	Legally Binding Award
LITIGATION	Judge (Public Court)	Legally Binding Judgment

Figure 3: The Architecture of Conflict – Linking Procurement Strategies, Construction Disputes and Dispute Resolution Mechanisms



documentation (Silva et al., 2024; Ahmed & El-Adaway, 2023). These issues are often exacerbated by inadequate procurement planning and unclear allocation of responsibilities (Love et al., 2008). Studies have further demonstrated that dispute factors can be systematically categorized into contractual, technical, and managerial dimensions, each influencing dispute occurrence differently (Ilter, 2012).

The construction industry has increasingly shifted from litigation toward alternative dispute resolution (ADR) mechanisms due to their flexibility, cost-effectiveness, and ability to preserve working relationships (Lee et al., 2016). Negotiation remains the most commonly adopted initial mechanism, with outcomes influenced by the behavioral styles and strategic interactions of the parties involved (Cheung et al., 2006). In large-scale and international projects, structured ADR approaches such as dispute review boards and arbitration are widely embedded in contracts to ensure timely dispute resolution (Kisi et al., 2020). In public-private partnership projects, procurement frameworks often prescribe specific ADR mechanisms, thereby shaping dispute resolution pathways from the outset (Okudan & Çevikbaş, 2022).

Procurement methods influence not only the likelihood of disputes but also the mechanisms through which such disputes are resolved. Collaborative procurement systems tend to embed proactive dispute avoidance strategies, while traditional systems are more likely to rely on formal adjudication processes (Senarath & Francis, 2024). Furthermore, project characteristics such as procurement structure, contract type, and stakeholder relationships significantly affect both dispute occurrence and resolution preferences (Francis et al., 2022). Recent studies emphasize the need for integrated frameworks that align procurement strategies with dispute management mechanisms to improve project outcomes (Muiruri & Abdel Aziz, 2025).

Emerging research also highlights the role of advanced claim management and data-driven approaches in enhancing dispute resolution efficiency in construction projects (Kalogeraki & Antoniou, 2024). This study builds on this established relationship by empirically examining how procurement methods influence dispute resolution mechanism choice within the Nigerian construction context. This theoretical linkage provides the foundation for the present study's empirical investigation into procurement-driven dispute resolution behavior in the Nigerian construction context.

### **3.0. RESEARCH METHODOLOGY**

This study adopted a qualitative research design to explore how procurement methods influence dispute resolution mechanism choice in the construction industry. A qualitative approach was considered appropriate because the research problem concerns human behaviour, perceptions, and decision-making around procurement strategies and dispute resolution, which are context-dependent and not easily captured through purely quantitative techniques (Patton, 2002, as cited in Zhang & Wildemuth, 2009). The design combined a review of existing literature with semi-structured interviews, thereby enabling triangulation between documented knowledge and lived practice (Aryal & Dahal, 2018; Chapman, 1999).



### **Study area and context**

The empirical component of the study was conducted in Port Harcourt, Rivers State, Nigeria, a major hub of construction and infrastructure development where diverse public and private works procurement activities are undertaken. The context is characterized by multiple procurement actors—clients, contractors, regulators, and dispute-resolution professionals—operating within a mixed environment of statutory public procurement frameworks and contractual practices shaped by industry norms (Boniface et al., 2024).

### **Population, sampling, and participants**

The target population comprised key stakeholders involved in construction works procurement and dispute resolution: works contractors/suppliers, works procuring entities, procurement regulatory agencies, and dispute-resolution practitioners such as lawyers, mediators, arbitrators, and members of the judiciary. A clustered sampling strategy was used to focus on practitioners within Port Harcourt, followed by stratified purposive selection to obtain proportional representation from each stakeholder group (Patton, 2002, as cited in Zhang & Wildemuth, 2009). Within each stratum, interviewees were selected based on their direct experience with construction works contracts and disputes, ensuring that responses reflected practical engagement with procurement methods and dispute resolution mechanisms (Mante et al., 2012).

### **Data collection**

Primary data were collected through semi-structured interviews conducted in 2024, guided by a pre-tested interview protocol. The interview guide contained ten open-ended questions that explored respondents' involvement in works procurement contracts; occurrence and nature of disputes; dispute resolution mechanisms actually used; procurement methods or strategies applied (e.g., traditional, DBFO, BOT, concessions); perceived links between procurement methods and dispute occurrence; perceived links between procurement methods and dispute resolution mechanism choice; and respondents' recommendations on integrating dispute resolution into procurement design (Ogunsanmi, 2014; Logan, 2024).

Interviews were preceded by a courteous introduction of the researcher and the study objectives, including assurances of confidentiality and anonymity, in order to build trust and encourage frank responses. Ethical demeanour was maintained throughout, and respondents were given room to provide additional reflections and recommendations beyond the pre-set questions. Interviews were conducted in person where feasible or through other appropriate communication channels, and detailed notes were recorded; in some cases, audio recording was used with consent to support accurate transcription (Zhang & Wildemuth, 2009).

Data saturation was considered achieved when no new themes emerged from successive interviews. To enhance the reliability of the analysis, coding consistency was maintained through iterative review and comparison of emerging categories. Additionally, triangulation between interview data and literature sources was employed to strengthen the validity of the findings.



### **Secondary data and literature review**

Secondary data were sourced from academic articles, professional reports, statutes, institutional guidelines, and training materials relating to construction procurement methods and dispute resolution. These included works on construction procurement categorization (e.g., Ogunsanmi, 2014; Logan, 2024), dispute causation in construction (e.g., Aryal & Dahal, 2018), and applications of alternative dispute resolution in procurement and construction settings (e.g., Chapman, 1999; Mante et al., 2012). The literature informed the conceptual framing, the development of interview questions, and the interpretation of field findings.

### **Data analysis**

Qualitative content analysis was employed to analyse the interview data and relevant textual material. In line with Patton's conception of qualitative analysis as a process of data reduction and sense-making, the recorded responses were carefully reviewed to identify core consistencies, divergences, and patterns of meaning (Patton, 2002, as cited in Zhang & Wildemuth, 2009). Following the approach of Zhang and Wildemuth (2009), the analysis proceeded through iterative stages of open coding, categorization, and theme development, guided by the study's objectives and induced hypotheses.

Initially, responses were tabulated to organize answers to each interview question across respondents and stakeholder groups. Codes were then developed inductively to capture recurrent ideas regarding procurement strategy design, dispute occurrence, preferred dispute resolution mechanisms, and contractual embedding of dispute resolution clauses. These codes were grouped into higher-order themes that described how procurement methods are crafted, how disputes emerge, how parties choose dispute resolution mechanisms, and how procurement frameworks can structure or stereotype those choices. The final themes provided the basis for the presentation of results and for the discussion vis-à-vis existing literature (Aryal & Dahal, 2018; Chapman, 1999).

### **Conceptual model and hypotheses**

The study was guided by an induced conceptual model linking procurement methods, construction works disputes, and dispute resolution mechanism choice. In this model, procurement methods operate as the independent variable, perceived disputes on construction works contracts function as an intermediate or control variable, and dispute resolution mechanism choice serves as the dependent variable (Logan, 2024; Ogunsanmi, 2014). The model embodied two working hypotheses:

- $H_1$  : Certain procurement methods, by virtue of their structure and contract quality, are more prone to triggering disputes in construction works contracts (Bennett, 1992).
- $H_2$  : Procurement methods provide a framework against the risk of possible disputes and, through their contract terms, recommend or specify the dispute resolution mechanisms to be used when disputes arise (Chapman, 1999; Okorie, 2024).

Figure 4 Conceptual model showing procurement methods as the independent variable, construction works disputes as the intervening/control variable, and dispute resolution mechanism choice as the

dependent variable.  $H_1$  proposes that certain procurement methods are more prone to triggering disputes, while  $H_2$  proposes that procurement frameworks—through embedded clauses and multi-tier ADR arrangements—recommend or stereotype the mechanisms used when disputes arise

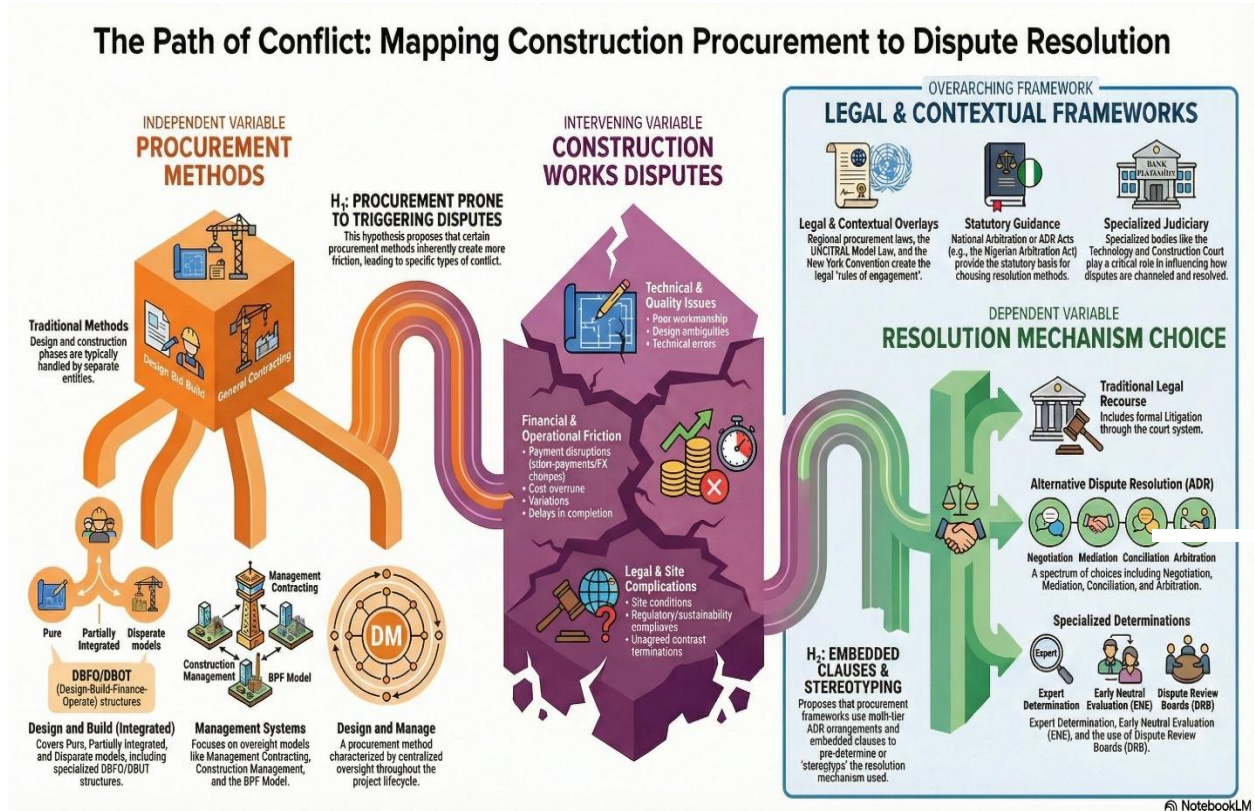


Figure 4 Conceptual flow of the Influence of Procurement Methods on Dispute Resolution Mechanism choice.

## 4.0. PRESENTATION OF RESULTS AND DISCUSSION

### 4.1. Presentation of Results

#### Overview of themes

The analysis of interview responses revealed several interconnected themes related to the formulation of procurement methods, the emergence of disputes in construction works contracts, and the selection and application of dispute resolution mechanisms in practice. These themes were evident across various stakeholder groups—contractors, clients, regulators, and dispute resolution practitioners—although the emphasis varied according to their roles and institutional perspectives.

**Table 1 presents a summary of the main themes and illustrative evidence from respondents.**



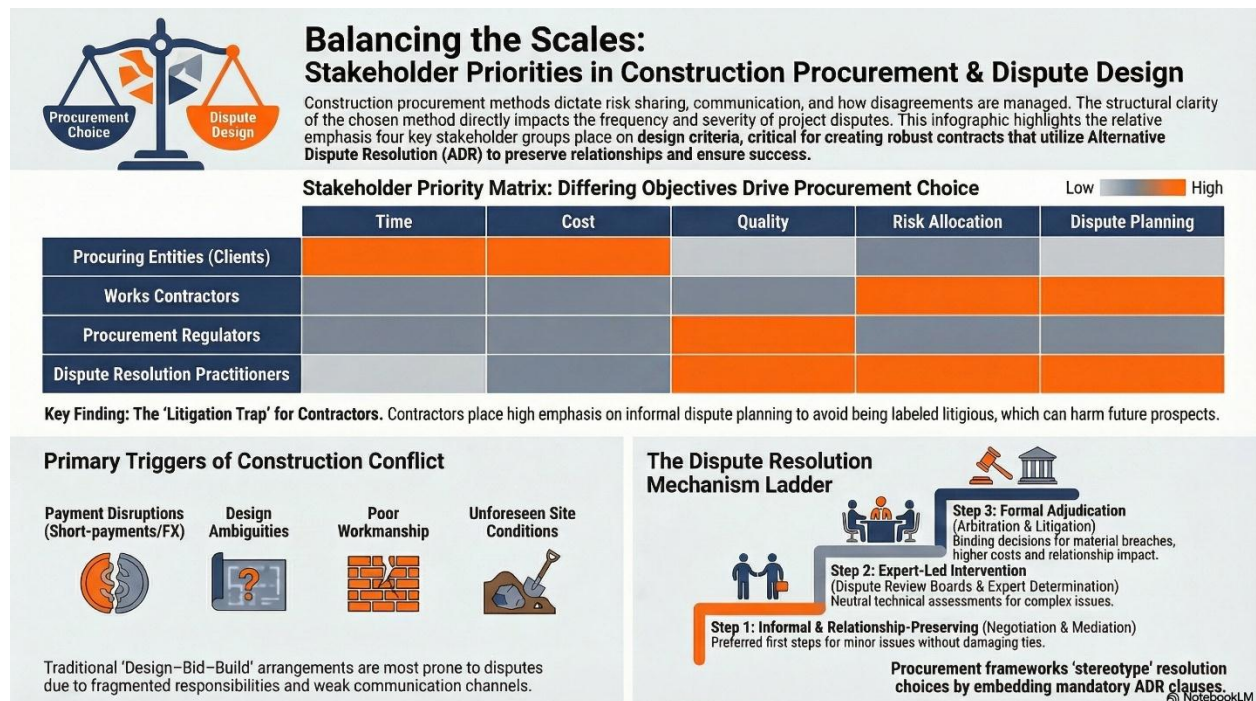
**Table 1: Summary of major themes emerging from interview data**

Theme	Description	Illustrative evidence from respondents	Link to literature
Procurement strategy design	Procurement methods are uniquely crafted around client resources, risk appetite, and objectives, with limited explicit attention to dispute risk.	Clients prioritise financing, time, and control; contractors focus on clauses governing obligations, risk allocation, payments, and dispute resolution.	Aligns with Ogunsanmi (2014) on the centrality of risk and control in procurement design.
Versatility and hybridity of methods	Numerous variants and hybrid arrangements extend beyond classical labels such as “traditional” or “design–build.”	Suppliers pay little attention to the nomenclature of the method and more to the detailed conditions of contract.	Supports Mante et al. (2012) who observed diverse method variants in major infrastructure procurement.
Disputes as social phenomena	Disputes are seen as inherent wherever humans collaborate, and are more likely under vague understandings and incomplete agreements.	Respondents emphasised poor planning and unthorough contract documentation as key enablers of disputes.	Consistent with Aryal and Dahal (2018) who highlight documentation and interpretation issues as root causes of construction disputes.
Informal resolution preference	Contractors prefer informal, relationship-preserving mechanisms (e.g. negotiation) to avoid escalation and maintain future opportunities.	Reputation for being “litigious” is linked to risks of black-listing or side-lining in future tenders.	Echoes World Bank findings (as cited in Mante, 2014) that contractors known for frequent litigation may be deprioritised in public procurement.
Contractual structuring of DRMs	Works contracts often specify stepwise dispute resolution clauses, narrowing the range and order of mechanisms available.	Clauses typically require negotiation/mediation before arbitration and only then litigation, and outcomes of ADR can be binding and court-enforceable.	Aligns with Chapman (1999) on integration of ADR into construction contracts.
Institutional and legal influences	Institutional arrangements (specialised courts, arbitration frameworks) and procurement ethics further shape DRM choice.	Respondents referenced legal enforceability of ADR decisions and reputational consequences of litigation behaviour.	Consistent with Okorie (2024), Okonma and Fagbohunlu (2021, 2022), and the example of the UK Technology and Construction Court (Mante, 2014).

**Procurement strategy design and sensitivity to dispute risk**

The findings indicate that construction works procurement strategies are often uniquely crafted to match the resource capabilities, risk appetite, and objectives of the procuring entity. In many cases, clients concentrate on aligning procurement methods with financing arrangements, time constraints, and control preferences, giving relatively limited explicit attention to how the chosen method might generate or mitigate disputes. Nonetheless, respondents acknowledged that systematically considering a “dispute risk matrix” and integrating suitable dispute resolution options into procurement frameworks would be beneficial, even though such practice is not yet consistently mainstreamed.

The interviews suggested a high degree of versatility and evolution in works procurement methods, with numerous variants and hybrid arrangements beyond classical labels such as “traditional” or “design–build.” Contractors were generally less concerned with the nomenclature of the method and more focused on the specific clauses governing obligations, risk allocation, payment terms, and dispute resolution, reinforcing the idea that procurement methods are experienced as sets of concrete contractual commitments rather than abstract categories. As a result, procurement methods manifest as diverse packages of agreements that can either mitigate or amplify dispute risks depending on their clarity, completeness, and internal coherence.



The combined stakeholder-priority matrix and mechanism ladder in Figure 5 summarizes how different actors emphasize design criteria, experience conflict triggers, and sequence dispute resolution mechanisms in practice. Procuring entities place strong emphasis on time and cost, contractors on cost, risk allocation, and informal dispute planning, regulators on risk allocation and compliance, and dispute-resolution practitioners on risk and structured dispute planning. The lower panel of the figure highlights primary triggers of construction conflict—payment disruptions, design ambiguities, poor workmanship, and unforeseen site conditions—which mirror the drivers identified

in the interview data and in prior studies such as Aryal and Dahal (2018) and Mante (2014). The “dispute resolution mechanism ladder” illustrates the observed sequence from informal, relationship- preserving processes (negotiation and mediation) through expert- led interventions (DRBs, expert determination) to formal adjudication (arbitration and litigation), reflecting how procurement frameworks and embedded ADR clauses tend to stereotype resolution choices. Figure 5 Stakeholder priorities, conflict triggers, and dispute resolution ladder in construction procurement

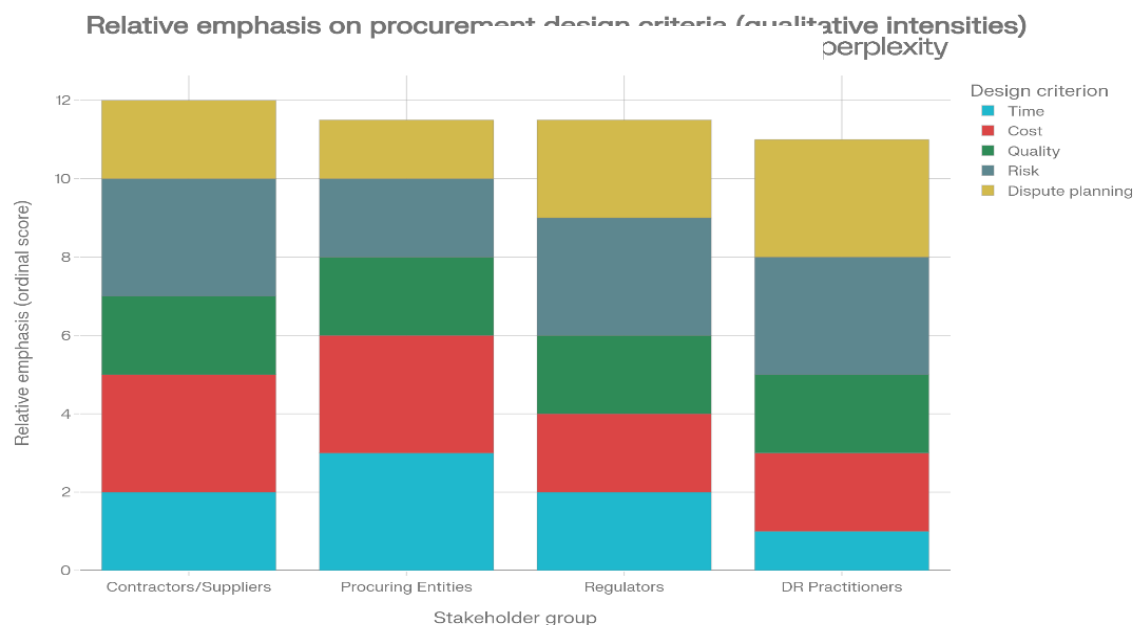


Figure 6. Relative emphasis on key procurement design criteria by stakeholder group (qualitative intensity scores High=3, Medium=2, Low=1, derived from coded interview themes rather than raw counts).

### Nature and drivers of disputes in construction procurement

Respondents consistently treated disputes as an inherent social phenomenon wherever human interactions and shared interests are present, including construction procurement relationships. They emphasized that disputes are more likely to arise where there are vague understandings, ambiguous or incomplete agreements, and perceived breaches of established rights and obligations, often linked to inadequate procurement planning and weak contract documentation.

Interviewees highlighted a broad range of dispute triggers, including quality and workmanship issues, deviation from design specifications, errors in design and scope definition, delays in project completion, payment delays and short-payments, cost overruns linked to unforeseen expenses and price fluctuations, scope changes and variations, differing site conditions, and disagreements around regulatory compliance and sustainability standards. These drivers closely mirror those identified in earlier studies such as Aryal and Dahal’s (2018) review of disputes in Nepal and Mante’s (2014) analysis of disputes in major infrastructure projects in Ghana, reinforcing the cross-context relevance of documentation quality, design clarity, and payment discipline as key determinants of conflict.



**Table 2. Main dispute triggers and comparison with selected prior studies**

<b>Dispute trigger in this study</b>	<b>Evidence from respondents</b>	<b>Alignment with prior studies</b>
Poor workmanship and quality issues	Cited as a frequent cause of dissatisfaction and rework, leading to claims and counter-claims.	Aryal & Dahal (2018) list workmanship defects as a prominent cause of disputes in construction projects.
Design ambiguities and errors	Inadequate or changing design information was linked to conflicting interpretations and implementation challenges.	Both Aryal & Dahal (2018) and Mante (2014) emphasise design ambiguity as a major dispute source.
Delays in completion	Time overruns, often linked to planning gaps and unforeseen conditions, generated disputes over responsibility.	Delay-related disputes are widely documented in global construction literature and in Ghanaian cases examined by Mante (2014).
Payment delays and short-payments	Disruptions to agreed payment schedules, including currency fluctuations, were a frequent trigger of conflict.	Mante (2014) and Okonma & Fagbohunlu (2022) note payment issues as central in infrastructure disputes.
Cost overruns and variations	Unforeseen expenses and scope variations caused disagreement over entitlement and valuation.	Consistent with Aryal & Dahal (2018) and international claims literature.
Differing site conditions	Subsurface and site condition changes affected foundations and resource requirements.	Also emphasised in major civil engineering disputes discussed by Chapman (1999) and Mante (2014).
Regulatory and sustainability compliance	Disagreements around adherence to standards and sustainability expectations prompted conflict.	Aligns with recent emphasis on environmental and social standards in procurement guidelines such as (Savchenko et al., 2021)

The relative prominence of the main dispute triggers identified by respondents is illustrated in Figure 7. Payment delays and short-payments, together with poor workmanship and quality issues, were perceived as very high-salience triggers, followed by design ambiguities and errors, delays in completion, and cost overruns and variations, while differing site conditions and regulatory/sustainability compliance issues were seen as important but relatively less frequent. The lower panel of the figure links these triggers back to procurement methods by emphasising that fragmentation in traditional design–bid–build arrangements increases dispute probability and that contracts should incorporate tiered resolution pathways—beginning with negotiation and mediation and escalating only where necessary to arbitration—in line with the ADR-focused approaches discussed in the literature.

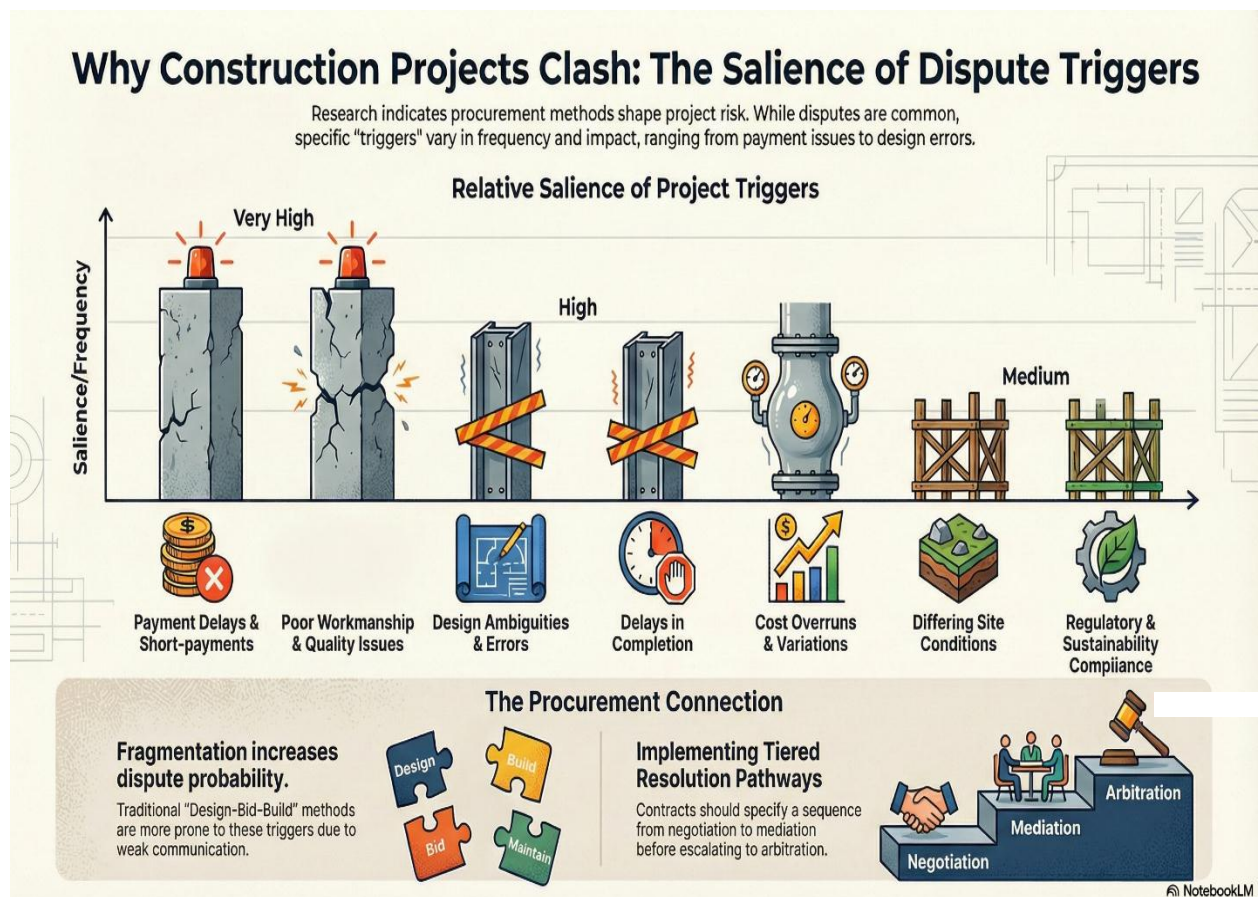


Figure 7. Relative salience of construction dispute triggers and procurement response pathways

### Preferences and behaviour in dispute resolution

Many contractors, particularly in higher-value works contracts, expressed a strong preference to prevent disputes from escalating in ways that could damage their long-term relationship with key clients. Accordingly, they typically prioritised informal, less adversarial dispute resolution mechanisms—such as direct negotiation and relationship-based problem solving—before considering more formal options. Respondents indicated that a reputation for being “litigious” can lead to black-listing or side-lining by procuring entities in future tenders, echoing similar observations reported in a World Bank study cited by Mante (2014), where contractors known for frequent recourse to litigation were reportedly deprioritised in Ghana’s public works procurement.

The nature and severity of the dispute also influenced mechanism choice in practice. Interviewees distinguished between relatively minor issues rooted in misinterpretation or technical errors and more fundamental, material, or repudiatory breaches. For minor breaches, parties showed a strong inclination to resolve matters informally or through low-cost ADR options (e.g. negotiation, mediation, expert input), whereas more serious breaches were more likely to push parties toward formal arbitration or, in some cases, litigation, consistent with the tiered-response logic described in Chapman’s (1999) guidance on DRBs and arbitration.

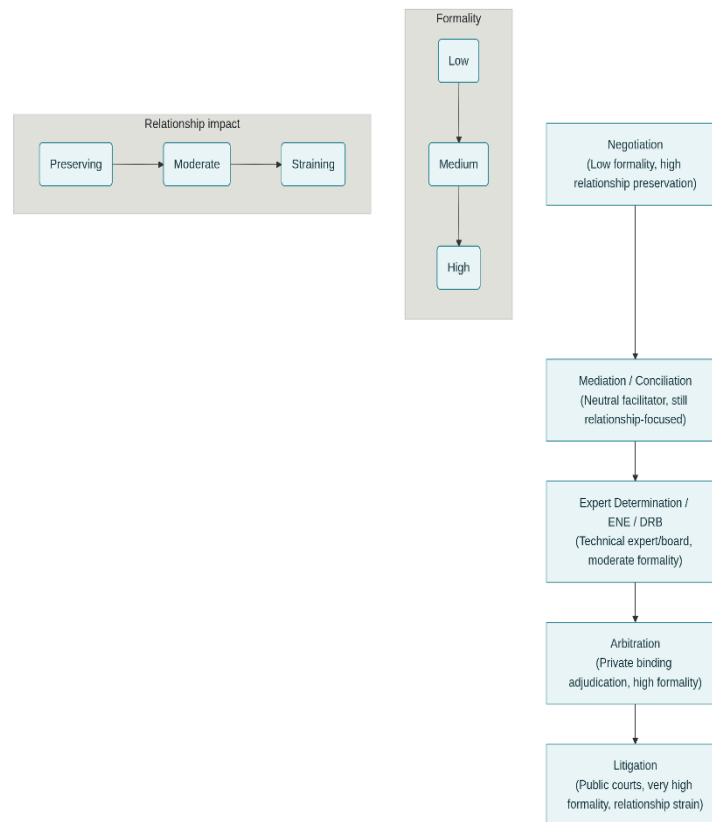


Figure 8. Dispute resolution mechanism ladder by formality and relationship impact in construction works contracts, illustrating the typical escalation from informal, relationship-preserving processes (negotiation, mediation/conciliation) through expert-led *mechanisms* (*ENE*, *DRB*, *expert determination*) to formal adjudication (*arbitration and litigation*).

### Contractual embedding of dispute resolution mechanisms

Respondents reported that formal works procurement contracts commonly include clauses specifying the dispute resolution mechanisms to be used should disputes arise. These clauses frequently outline a sequential approach—for example, negotiation and/or mediation, followed by arbitration, and only then recourse to the courts—thereby effectively narrowing the range and order of dispute resolution options available to the parties. Once such clauses are consented to, parties generally feel bound to exhaust the prescribed mechanisms before considering alternative pathways, which accords with the principle of party autonomy and contractual bindingness emphasised in Chapman (1999), and Okorie (2024).

Stakeholders also confirmed that, where contracts clearly specify ADR procedures and provide that outcomes are binding, the resulting settlements are typically recognized and enforceable by the courts,



consistent with the broader legal framework for ADR in Nigeria and other jurisdictions. This contractual structuring supports the enforcement of ADR decisions while easing pressure on overburdened court systems, mirroring experience in donor-funded infrastructure projects where DRB recommendations and arbitral awards are integrated into contract conditions (Chapman, 1999; Okonma & Fagbohunlu, 2021).

### **Identified influences of procurement methods on dispute resolution mechanism choice**

Drawing together the interview findings, several specific ways in which procurement methods influence dispute resolution mechanism choice were identified.

1. Embedding industry-specific standards and norms: Respondents recognised that construction procurement methods reflect and embed industry-specific standards, ethics, and frameworks, including dispute resolution norms and mechanisms tailored to support ongoing works and relationships. This observation aligns with Mante et al. (2012), who found that procurement systems in major infrastructure projects often incorporate sector-specific dispute processes.
2. Recommendation and stereotyping of mechanisms: Procurement methods frequently recommend or stipulate particular dispute resolution mechanisms within their contract frameworks, thereby narrowing and sometimes stereotyping the range of mechanisms that parties may use. Similar patterns are noted in FIDIC-based contracts and World Bank guidelines that mandate DRBs and multi-tier ADR (Chapman, 1999).
3. Clarity of contracts and dispute reduction: Procurement methods that provide clear, comprehensive, and unambiguous contractual definitions appear to reduce opportunities for divergent interpretations and errors that could escalate into disputes, thereby indirectly shaping the frequency and character of dispute resolution. This finding reinforces long-standing claims in the construction law literature that clarity and completeness of contract documentation are among the most effective tools for dispute prevention (Aryal & Dahal, 2018; Okonma & Fagbohunlu, 2022).
4. Integration of efficient, low-cost ADR mechanisms: Respondents noted that more modern and sophisticated works procurement approaches increasingly integrate efficient and relatively low-cost ADR mechanisms that are well aligned with construction industry practice. This trend is consistent with global shifts toward ADR, and the growing use of DRBs and mediation in major projects (Chapman, 1999).
5. Preference for relationship-preserving mechanisms: Contractors observed that procurement methods frequently favour dispute resolution mechanisms that minimise damage to working relationships—such as negotiation, mediation, conciliation, and expert determination—particularly at early stages of conflict. This is in line with Baker Newby (2024) and Okorie (2024), who emphasise the relational advantages of ADR over litigation.
6. Institutional and behavioural influences: Interviewees pointed to the role of institutional arrangements, such as specialised courts or tribunals for construction disputes and procurement ethics around “black-listing,” in reinforcing preferences for non-adversarial



mechanisms and shaping how parties sequence their dispute resolution choices. These findings resonate with Mante's (2014) Ghanaian evidence on black-listing of litigious contractors and with the establishment of specialised courts such as the Technology and Construction Court in England and Wales.

## **4.2. DISCUSSION**

The findings of this study provide strong empirical support for the proposition that procurement methods significantly influence both the occurrence of disputes and the selection of dispute resolution mechanisms in construction projects. Consistent with existing literature, traditional procurement systems—particularly design–bid–build—were found to be more susceptible to disputes due to fragmented responsibilities, limited integration, and communication breakdowns. This aligns with Fenn et al. (1997), who identified fragmentation and adversarial relationships as key drivers of conflict in construction projects.

In contrast, integrated procurement approaches such as design–build and public–private partnerships were associated with reduced dispute frequency and a stronger preference for collaborative dispute resolution mechanisms. This finding corroborates Elhag et al. (2020), who demonstrated that collaborative procurement frameworks enhance coordination and reduce claims and disputes. The integration of design and construction functions appears to facilitate clearer accountability and improved information flow, thereby mitigating common sources of conflict such as design ambiguities and scope inconsistencies.

The study further confirms that dispute causation in construction projects is multifaceted, involving technical, contractual, and behavioral factors. The prominence of issues such as payment delays, design errors, and scope variations is consistent with the findings of Silva et al. (2024) and Ahmed and El-Adaway (2023), who identified these factors as primary drivers of disputes across diverse construction contexts. Importantly, the results suggest that these dispute triggers are not independent of procurement strategy but are significantly shaped by how risks and responsibilities are allocated within the contractual framework.

With respect to dispute resolution mechanisms, the findings reinforce the growing preference for alternative dispute resolution (ADR) methods in construction. Negotiation and mediation were consistently identified as the first line of response, reflecting their flexibility and relationship-preserving characteristics. This supports Lee et al. (2016), who highlighted the increasing adoption of ADR as a response to the limitations of litigation. The observed use of tiered dispute resolution frameworks—progressing from informal negotiation to arbitration—also aligns with established industry practices documented by Kisi et al. (2020).

A key contribution of this study lies in demonstrating that procurement methods not only influence dispute occurrence but also actively structure dispute resolution pathways through embedded contractual clauses. This supports the argument by Okudan and Çevikbaş (2022) that procurement frameworks play a determinative role in ADR selection, particularly in complex projects such as PPPs. The findings further extend the work of Senarath and Francis (2024) by providing empirical



evidence from a developing-country context, highlighting how procurement design can be leveraged as a strategic tool for dispute avoidance and management.

Overall, the study advances the understanding of procurement–dispute dynamics by integrating theoretical insights with empirical evidence. It underscores the importance of aligning procurement strategies with appropriate dispute resolution mechanisms to enhance project performance, reduce conflict escalation, and promote sustainable stakeholder relationships in the construction industry.

## **5.0. CONCLUSION AND RECOMMENDATIONS**

### **5.1. Conclusion**

This study examined the influence of procurement methods on dispute resolution mechanism choice in the construction industry, using evidence from construction procurement stakeholders in Port Harcourt, Rivers State, Nigeria. The findings show that procurement methods are not merely acquisition strategies for works delivery; they also shape the quality of contractual relationships, the likelihood of disputes, and the dispute resolution mechanisms that parties prefer or are compelled to use when conflicts arise.

The study confirmed that traditional design–bid–build procurement is particularly prone to dispute generation because of fragmented responsibilities, weak communication, and incomplete or ambiguous contract documentation. By contrast, more integrated procurement arrangements such as design and build, management contracting, and public–private partnership variants tend to encourage clearer risk allocation, better coordination, and more structured dispute resolution clauses. These arrangements therefore support early, relationship-preserving ADR mechanisms such as negotiation, mediation, expert determination, and dispute review boards, before escalation to arbitration or litigation.

The study also demonstrated that dispute resolution mechanism choice is influenced not only by the wording of contract clauses, but also by behavioural, reputational, and institutional considerations. Many respondents preferred mechanisms that could preserve business relationships and avoid being labelled litigious, while procurement frameworks often pre-structure the sequence of mechanisms available to the parties. In this way, procurement methods influence both the emergence of disputes and the pathways used to resolve them.

Overall, the research achieved its aim and supports the conceptual model that procurement methods, construction disputes, and dispute resolution mechanism choice are closely linked in practice. The study therefore contributes to procurement management and construction law by showing that dispute planning should be embedded in procurement design from the outset rather than treated as an afterthought.

### **5.2. Recommendations**

Based on the findings of the study, the following recommendations are made:



1. Procuring entities should incorporate dispute risk assessment into procurement planning at the project design stage, alongside cost, time, quality, and financing considerations.
2. Standard and bespoke works contracts should include clear, context-specific multi-tier dispute resolution clauses that begin with negotiation or mediation and progress to arbitration only where earlier mechanisms fail.
3. Procurement regulators and professional bodies should issue guidelines and model clauses that promote the use of ADR in construction procurement, especially for technically complex and long-duration projects.
4. Contractors, clients, and procurement officers should be trained on how procurement choices influence dispute occurrence and dispute resolution behaviour.
5. Integrated procurement methods should be encouraged where project complexity, stakeholder coordination, and long-term relationship management are major concerns.
6. Litigation should be treated as a last resort, particularly where the parties wish to preserve future working relationships or avoid delay and high legal costs.

### **5.3. Future Studies**

Future studies should expand the scope of this research in several directions. First, quantitative studies should be conducted across multiple states or cities to test the relationships identified in this study and determine whether they hold in larger samples. Second, comparative studies should examine whether different procurement methods produce different dispute patterns across project types such as buildings, roads, bridges, and industrial facilities.

Third, mixed-methods research should be undertaken to combine interviews, contract document analysis, and case studies of actual disputes, so that the interaction between procurement methods and dispute resolution choices can be understood more deeply across the project lifecycle. Fourth, future research should investigate the roles of procurement ethics, black-listing risks, institutional enforcement, and specialized courts or tribunals in shaping the selection of ADR or litigation. Finally, studies may also explore how digital procurement platforms and modern contract management systems could improve dispute planning and reduce conflict escalation in construction procurement.

### **Conflict of Interest**

The authors declare that no conflict of interest exist in this manuscript.

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