



Utilizing Dispute Resolution Mechanisms (DRMs) for Conflict Settlement in Public-Private Partnership (PPP) Education Infrastructure Development

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Citation: Oyeyoade, S.F., Ayorinde, O. I., & Oyewole, M.O. (2024) Utilizing Dispute Resolution Mechanisms (DRMs) for Conflict Settlement in Public-Private Partnership (PPP) Education Infrastructure Development. *Business Perspective Review* 6(1), 54-74. <https://doi.org/10.38157/bpr.v6i1.650>.

Research Article

Abstract

Purpose: This study explores the deployment of Dispute Resolution Mechanisms (DRMs) in addressing conflicts inherent in Public-Private Partnerships (PPPs) for educational infrastructure, particularly in Nigerian universities.

Methodology: Using purposive sampling, 126 questionnaires were administered to stakeholders, including private investors and university officials involved in PPP procurement. The study analyzed responses using descriptive statistics, including mean values, relative importance index (RII), and Henry Garrett ranking methods, to identify causes of dispute, prevention strategies, and DRM implementation frameworks.

Results: The study identified 21 critical causes of dispute, ranging from excessive contract variations to inadequate risk allocation and trust deficits. Among 13 examined dispute prevention strategies, extensive stakeholder consultations and regular site meetings emerged as the most effective. Fast-track resolution processes were ranked as the most resourceful DRM, while litigation was the least preferred due to inefficiencies and costs.

Implications: The findings emphasize integrating preventive measures and effective DRMs into PPP contracts to reduce disputes, ensure project sustainability, and align stakeholders. The study offers practical recommendations for incorporating DRMs into the PPP framework, enhancing project outcomes, and fostering investor confidence.

Originality: This research provides a novel DRM framework tailored to the peculiarities of PPP conflicts in Nigerian universities, addressing the scarcity of focused studies on this topic.

Limitations: The study is geographically limited to three universities in southwestern Nigeria, and findings may not fully represent other contexts or sectors.

Keywords: PPP conflicts, dispute prevention, dispute resolution mechanisms, educational infrastructure.

1. Introduction

There has been a global agitation for public-private partnership (PPP) in funding and developing educational infrastructure in recent times. The agitation has been more pronounced in developing economies like Nigeria which find it difficult to meet the target of 15 to 20% of annual budgetary allocation prescribed by the United Nations Educational Scientific Organisation (UNESCO). The inadequacy of funds

for the education sector in the Country necessitated the deployment of PPP models to augment the provision of infrastructure in some Nigerian public universities through the University Hostel Development and Management (UHDM) initiative in 2004 (Okebukola, *et. al.*, 2004; Okebukola, 2006; Bamiro, 2012).

By and large, the modality of engaging PPP varies from one sphere to the other because of the influences of political factors, high exposure to macro and microeconomic variables, and the various terms and conditions for engagements with the inherent risks of the concession. Moreover, the participation of private investors in PPP arrangements is mainly motivated by the economic returns from public projects, while procuring authorities seek to generate social benefits through the partnership, especially in developing economies. For instance, the interest of the university management centers on engaging the PPP model to rescue the deteriorated conditions of students' hostels and make up for the facility shortfalls with the target of meeting the world educational standard. Meanwhile, the PPP hostel investors focus on the returns from the projects. This insight, therefore, sets the stage for conflict occurrences in the PPP concessions adopted by public universities.

The differing interests alongside the range of conflicting issues make Awodele, (2012) affirm that the inability to harmonize diversities of individual interests is one of the root causes of disputes during PPP operations. Thus, many researchers opined that conflict or disagreement is expected in PPP projects because of; the multiplicity of stakeholders with diverse perceptions, long concession period, suspicion or distrust, and the prevalence of uncertainty and risk factors, among others (Global Infrastructure Hub, 2018; Ahatty, *et. al.*, 2021; Osei-Kyei & Chan, 2021). Currie and Teague (2015) also added that PPP contracts are an arrangement that must align all stakeholders' interests and objectives to prevent conflict. In this regard, Harisankar and Sreeparvathy (2013) argue that the major area of concern at the stage of contract management is the setting up of an efficient and credible dispute resolution mechanism as an integral aspect of every PPP project, which would ensure the settlement of disputes in a time-bound manner.

Though the PPP initiative has largely addressed the problem of infrastructural deficit in tertiary institutions where it is adopted, conflict owing to the multiplicity of stakeholders' contrasting interests has hindered its effectiveness. Many value-added projects were terminated prematurely. The poor states of the academic facilities thus linger, particularly in public tertiary institutions. To guarantee PPP success, therefore, its process must include a comprehensive conflict management plan to ensure sequential attention to intrinsic disputes and problems.

Conflict is one of the risk factors influencing PPP performance. And this calls for proper identification, analysis, and understanding among the stakeholders (Sanda, *et. al.*, 2020). it is imperative to understand that dispute resolution is a subset of PPP risk control and must receive significant attention while managing a project. There is a need to focus on risk management that embeds the process of conflict management (Guislan & Kerf, 1995; IPPR, 2000). Eliminating disputes in PPP contracts requires concerted efforts which may not be achievable due to the plurality of the stakeholders' interests but realizable if the parties are determined and committed to the success of the projects. Love *et. al.* (2010) maintain that conflicts will continue to erupt and disrupt the process of PPP projects, and perhaps have considerable consequences on the project delivery cost, time, and quality if the dispute resolution mechanism is not operational. To substantiate this, the peculiar situation of contract procurements and the poor investment climate in Nigeria have inevitably been responsible for the exposure of PPP to contractual conflicts (Sanni & Adebisi, 2017). Since all projects executed through the models of PPP are prone to disputes, the BOT arrangement adopted for students' hostels' development in Nigerian public universities may be more of a conflict due to the diversity of socio-economic interests.

This research is motivated by the need to improve understanding of dispute resolution practices to effectively manage conflicts on the success of Public-Private Partnership (PPP) hostel developments in educational institutions. The paper aims to identify the causes of disputes, analyze strategies for preventing

disputes in PPP projects, and evaluate the framework for implementing dispute resolution mechanisms (DRMs) in settling disputes related to PPP contracts within the study area.

2. Literature review

2.1. PPP Project Disputes in Nigerian Public Universities: An Overview

The National Universities Commission (NUC) instigated the University Hostel Development and Management (UHDM) as a flexible procurement plan for the delivery of educational facilities in 2004 (Okebukola, *et. al.*, 2004; Okebukola, 2006; Bamiro, 2012). The initiative was to moderate the wide deficit of facilities that have been clogging education standards over the years in Nigerian public universities, of which inadequate “on-campus” hostel accommodation is a major problem (Ajayi, Nwosu & Ajani, 2015; Oyeyoade & Araloyin 2019). Build-operate-transfer (BOT) as a model of PPP was adopted because of its consistent attributes for project construction, financing capacity for infrastructure development, and transferring of facilities in operational conditions at no cost to the procuring authority at the end of the concession term (Yuan, *et. al.*, 2008; Batra, 2021). These characteristics of PPP/BOT among others indicate its suitability for the objective of this scheme. For this reason, many public universities embraced private finance initiatives (PFI) through PPP, which have an initial value of \$740 million (Gbadegesin & Aluko, 2014).

However, educational infrastructure is a social good required to engender social benefits such as educational advancement that is meant to propel economic development, the futuristic benefit. However private investors prefer investing in economically viable public goods that will produce income flow in no time. Given the divergence between the private investors' short-term plan and the procuring authority's long-term target, UHDM guidelines considered the flexibility of procurement terms and conditions as an important process to stimulate substantial participation of the private investors. This is also seen as a strategy for reducing the impact of risk factors and as well restricting the inherent conflicts in PPP operations among the stakeholders.

Despite that, conflicts have been currently straining the relationship between the private investors of PPP hostels and the universities' management (Opawole & Kajimo-Shakantu, 2018). Disputes have been putting several projects on hold or terminating them at the climax of the disputes. The stakeholders' goal in the contracts is to ensure dispute resolution that will initiate decisions that can move the project forward in a viable and sustainable manner while maintaining value for money. In the meantime, the decline in asserting this opinion had been producing awkward outcomes to the detriment of the parties' interests. For instance, the management of Obafemi Awolowo University, Ile-Ife, Nigeria in 2014 revoked the PPP agreements signed with ten (10) private investors due to various conflicts bothering the inability to complete the project within the regulated time, noncompliance with the agreed designs and specifications, readjustment of Memorandum of Understanding (MoU) in favor of the procuring authority after some years of engagement, etc.

Quium (2010) states that private investors will feel encouraged to participate in PPP projects only when there is confidence in resolving disputes fairly and efficiently. The observation of Opawole and Kajimo-Shakantu, (2018) also affirms that unresolvable dispute was one of the barriers against the investors' participation in PPP hostel developments. In other words, severe conflict will defeat the objectives of any PPP arrangement. The falloff in private investors' involvement in PPP might be attributed to the spate of disputes subsisting in the contract arrangement in the study area.

2.2. Causes of Disputes in PPP

Gardiner and Simmons (1992) defined a dispute as a difference in interests, objectives, or priorities between individuals, groups, or organizations, or a failure to meet task, action, or process requirements. Collin (1998) also describes dispute as disagreement and argument about something “serious/important” and as a difference between two or more beliefs, ideas, and interests. Every aspect of human relationships

encompasses disputes. It is also unsurprisingly enormous in contracts where stakeholders' interactions are unavoidable as in PPP concessions (Acharya et al. 2006). Sanni and Adebisi (2017) noted that the PPP contract is associated with disputes at various levels. For instance, technical, operational, social, construction, financial/economic, legal, and political levels (see **Table 1**). In their observation, each level of the dispute has appropriate DRMs suitable for holistic settlement of detrimental discord among the stakeholders. The inevitability of disputes in PPP makes it a key risk influenced by the differences and multiplicity of the parties' interests and values (Mitkus & Mitkus 2014; Ejohwomu *et al.*, 2016). Despite the unpleasant meanings and likely negative results of disputes, its constructive aspects are distinguishable through effective dispute management which is a relevant component in managing physical project contracts (Gardiner & Simmons, 1992).

Table 1: Aspects of dispute and disputing issues in PPP projects

Dispute Aspect	Disputing Issues
Technical Hitches	<ul style="list-style-type: none"> • design defects • Unsuitable construction methods • Different site conditions • Unproven technology
Operation Restrictions	<ul style="list-style-type: none"> • Legislation affecting operation standards • Delay or interruption in operation • Poor quality of services • Operating and Maintenance cost overrun
Social Hindrances	<ul style="list-style-type: none"> • Labour Strikes or disputes • Discrimination • Ethical or religious strife • Different working conditions • Dishonesty, bribe, or fraud
Construction Drawbacks	<ul style="list-style-type: none"> • Failure to meet performance criteria • Cost and time overrun • Delay/default caused by subcontractors
Financial/Economic Downturns	<ul style="list-style-type: none"> • Higher inflation rate • Higher exchange rate variation • Interest rate variation • Fluctuation in tax obligations • Severe pricing war • Decrease in market consumption
Legal Obstructions	<ul style="list-style-type: none"> • Change in legal or regulation regime • Permits or license delay or renewal delay • Inadequate provision for dispute resolution
Political Interferences	<ul style="list-style-type: none"> • War • Confiscation or expropriation • Embargo or restriction • Contract or agreement break • Difficulty in land acquisition

Source: Adapted from Sanni & Adebisi (2017); Bashar, et. al., (2021)

Osei-Kyei and Chan (2021) cited Gorse (2003), and Gardiner and Simmons (1992) when categorizing disputes from the perspective of functional and dysfunctional. A dispute is functional when it is natural and occurs upon the challenges and disagreements on tasks, processes, and roles. While on the other hand, a dysfunctional dispute is unnatural and susceptible to emanating from offensive challenges that are personal, and criticisms that encourage self-superiority as against the stimulation of task performance. Regardless of the categories of the intrinsic disputes of the PPP projects, Diaz Reus (2019) argues that the role each party

plays in the PPP project will impact the method for resolving disputes that may ultimately arise among the parties.

As stated earlier, there is no construction project without an element of conflict, but PPP projects are more susceptible to conflict compared to any other construction project arrangement including the traditional procurement method (TPM). UNDP (2017) affirms that the lengthy concession period of PPP arrangement coupled with the complexity of legal agreements and the involvement of numerous stakeholders having multifaceted interests, beliefs, objectives, etc., are the reasons for the increasing conflicts. Also, the diversity of PPP external parties is capable of instigating problems. It is obvious that if PPP conflict is not appropriately addressed it could lead to project delays, undetermined team spirit, an increase in project cost, and breaking personal and professional relationships (Osei-Kyei & Chan, 2021). Given the detrimental influences of conflicts on PPP projects, Harmon (2003) advises on the need to devise a conflict management structure that will guide the project stakeholders in resolving inevitable disputes.

To initiate an effective and credible conflict management system, it is imperative to first identify the root causes of conflicts in PPP projects. Having a proactive plan on how to handle conflict will enable the stakeholders to realize their investment goals throughout the PPP project lifecycle. Previous studies identified various prospective causes of conflicts (Kumaraswamy 1997; Harmon 2003). These include lack of adequate interactions, defective design, shortage supply of resources, unattainable anticipations of the stakeholders, omissions, and ambiguities leaving a lacuna in the contract agreements, unjustified changes to the scope of works, managerial flaws, inadequate administration of responsibilities by the owner or contractor or subcontractors, etc. Zheng, *et. al.*, (2021) and, Osei-Kyei & Chan (2021) observed fifteen (15) and sixteen (16) interrelated causes of disputes in their studies respectively. However, **Table 2** presents twenty-seven (27) synthesized root causes of disputes in PPP/BOT projects.

Table 2: Causes of disputes in PPP projects

Item Code	Dispute Factor
CD1	Public opposition/unacceptability by the end users
CD2	Private sector failure/lack of skills and experience, and inexplicit roles of the stakeholders
CD3	Lacuna in the contract agreements due to omissions and ambiguities
CD4	Unfair risk allocation
CD5	Delay in decision-making
CD6	Unreliable feasibility studies
CD7	Insufficient financing capacity
CD8	Lack of environmental impact assessment (EIA) causing improper operations
CD9	Unexpected changes in tariffs and taxes
CD10	Absence of proper communication and adequate interactions,
CD11	Poor financial affordability
CD12	Payment default due to high service charge to end-users
CD13	Inadequate investigation and disordered preparation
CD14	Repudiation of contract
CD15	Inaccurate demand forecast
CD16	Unjustified changes to the scope of works
CD17	Contradictory terms in job specifications
CD18	Political interference
CD19	Excessive contract sum variation
CD20	Ambiguous goals/objectives and unattainable anticipations on returns
CD21	Inadequate transfer of risks
CD22	Trust variation and personality clashes
CD23	Unrealistic time targets for project delivery and concession periods
CD24	Delay in rectifying defects during service delivery
CD25	Reluctance to seek clarification on ambiguous instructions
CD26	Inadequate compensation for displaced persons
CD27	Absence of a well-established legal framework

Source: Adapted from Zheng, *et. al.*, (2021); Osei-Kyei and Chan (2021)

The adoption of a conflict management system that ensures effective resolution procedures for dispute settlement in respect of the foregoing is crucial for the successful delivery of the BOT projects (Currie & Teague, 2015; Zheng, *et. al.*, 2021). Harmon (2003) noted that unresolved conflicts within a specific

timeframe will snowball into a full-scale dispute which a resolution mechanism may not be able to settle till the contract is terminated. However, the researcher mentions that it is necessary to monitor and evaluate conflicts each time a resolution mechanism is implemented or applied. Because it will facilitate the assessment and documentation of the effectiveness and the credibility of the resolution mechanism adopted, and thereby prevent the occurrence of similar disputes in the future.

2.3. Dispute Prevention Strategies (DPS)

A popular maxim says, “Prevention is better than curing” and another one says, “A stitch in time saves nine.” In the simplest terms, it is more logical to avoid dispute than to be sourcing for a workable resolution mechanism given that its cost might not be affordable. An effective dispute resolution will sometimes involve vast resource consumption (time, money, and energy) while conflict prevention will always neutralize potential root causes. **Table 3** (as adapted from Bashar, *et. al.*, 2021; Osei-Kyei & Chan, 2021) itemized the stratified components and strategies of dispute prevention that can be adopted by the stakeholders of the PPP project contracts.

Table 3: Stratified components of dispute prevention strategies (DPS)

Stratified Component	Prevention Strategy
Communication and Risk Assessment	<ul style="list-style-type: none"> • Realistic dispute assessment • Appropriate risk sharing • Quick response to claim • Well-defined and accessible communication system • Training and education in communication
Transparency and Openness	<ul style="list-style-type: none"> • Extensive stakeholders’ consultation in decision-making • Clear goals and mutual benefits objectives • Clarity of roles and responsibilities of stakeholders • Transparent procedure to instill parties' confidence in resolution decisions or DRM outcomes • Transparent and all-inclusive participation in tariff review
Quality Control and Excellent Delivery	<ul style="list-style-type: none"> • Reliable and sustainable service delivery • Regular site meetings to minimize the accumulation of construction defects • Allow for experts’ opinions and cognate experience in specific operations

Source: Adapted from Bashar, *et. al.*, (2021); Osei-Kyei and Chan (2021)

2.4. Dispute Resolution Mechanisms (DRMs) in PPP

A dispute resolution mechanism (DRM) is a systemic process to resolve the differences between two or more individuals that are tied to common interests (Delmon, 2016). The importance of DRM in PPP/BOT concession cannot be overemphasized. Without a workable DRM, public infrastructure delivery through PPP will prove unrealistic at the interface of varying stakeholders’ goals. To this end, many researchers of disputes in PPP projects (Chan & Suen, 2005; Currie & Teague, 2015; Delmon, 2016; Sanni & Adebisi, 2017; Diaz Reus, 2019; Ahatty, *et. al.*, 2021; Osei-Kyei & Chan, 2021) investigate the process of various resolution mechanisms and suggest basic methods relevant to the PPPs being the prominent model of private finance initiative (PFI). Among these DRMs identified are negotiation, mediation, arbitration, fast-track resolution process, mediation/conciliation, expert determination, dispute resolution board (DRB) intervention, and litigation.

A review of the extant literature on DRMs in PPP projects by Ahatty, *et. al.*, (2021) shows that there is a slight difference between the DRMs suggested by the Infrastructure Concession Regulatory Commission (ICRC) Act No. 18 of 2005 in Nigeria and those that are in line with the global practice according to the

World Bank guidelines. The ICRC parameters are internalized mechanisms due to the peculiar investment climate in Nigeria (Sanni & Adebisi, 2017). Thus, **Table 4** compares the DRMs adapted by ICRC in Nigeria and those of global practice. As indicated in the table, the "fast-track (on the spot) resolution process", "discussion between parties" and "arbitration with varied rules" make the difference in the approaches of DRMs suggested by both guidelines.

Table 4: DRMs adapted by ICRC in Nigeria and the Global Practice (World Bank Guidelines)

ICRC DRMs' Guidelines	Global Practice DRMs' Guidelines
Fast-track (on the spot) resolution process	-
Discussion between parties	Negotiation
Dispute resolution board (DRB) intervention	Dispute regulatory board (DRB) intervention
Expert determination	Expert determination
Mediation/conciliation	Mediation/conciliation
Arbitration (Arbitration and Conciliation Act (ACA) Chapter A18, Laws of the Federation of Nigeria 2004 incorporating UNCITRAL Model Law)	Arbitration (The UNCITRAL Model Law 2006)
Legal court system (Litigation)	Litigation

Source: Authors' literature review (2024)

Amongst the renowned DRM options in PPP contracts are negotiation, mediation, arbitration, and litigation due to their distinct framework and applicability to resolving predictable differences among the projects' stakeholders. However, the approach, the relevance, the resourcefulness, and the dissimilarities of these mechanisms are thus discussed:

2.4.1. Negotiation

Among all the DRMs that portend the capacity to resolve disputes in the context of PPP concession, negotiation is relatively attainable without sourcing the inputs of the third party. It involves working out the differences between or among the conflicting parties and proffering settlement terms acceptable to all at the round table discussion without the influence of a mediator or an arbitrator. It requires the stakeholders to have a "tête-à-tête" conversation to bring solutions to the issues that may jeopardize the relationship and possibly truncate the delivery of the concession projects. To utilize this type of DRM, the contracting parties must ensure that there is a provision for the guidelines to follow in the MoU or contract agreement on the likely issues and the stages at which negotiation will be engaged. Notably, negotiation attracts no cost or commitment of resources. The requisite conditions to fulfill are the sincerity of purpose and the optimism to accept the outcomes of the negotiation by the parties involved.

2.4.2. Mediation

Mediation is a formal method of pacification through a third party's negotiation to reconcile the differences between two or more disputing parties. At a standardized level of PPP concession, Dispute Resolution Boards (DRB) and Expert Determination are the essential arms to aid the achievement of dispute resolution through mediation (see **Table 4**). In this model of DRM, the prevention of partisanship is key to assigning the role of a mediator if "free and fair" judgment is to be predominantly achieved. In other words, neutrality is the principal attribute of a dispute mediator. Also, for equity and justice to prevail without prejudice, the selected mediator must declare if s/he has a personal stake in the subject matter before the commencement of the mediation process. This is to avoid the debasement of the resolution process and ensure the confidence of the stakeholders. A mediator functions as a negotiation facilitator by stimulating or prodding the conflicting parties to settle their disagreements in line with the sense of a "win-win" situation, and not with the motive of the "winner takes it all" i.e., it is imperative for the parties to assent to the idea of "win some, lose some" or "give and take" as it were. Thus, a mediator must have cognate experience inconsonant with the subject of the dispute and as well be vast in mediative planning to effect resourceful dispute resolution. The advantages of DRM by mediation are a conflict that takes months or years to resolve by litigation or arbitration, a mediator may clarify such within hours; mediation allows the parties to retain freedom of

expression over the process unlike in litigation where parties' thoughts can be marginalized during the proceedings; parties can choose to end the mediation process by simply decided to discontinue the set-up mediation structure without much ado. Furthermore, a mediator can narrow down the issues over which significant disagreement exists. It is also possible that by the time of terminating a mediation forum, the conflicting parties might have settled their differences to the extent of continuing negotiation without further input from the mediator. This is probably because of the positive insights gained by the parties while the mediation was in progress. Mediation may not yield instant results but may open the lines of communication, and gradually help narrow the dispute contents. In summary, mediation is opined to be the most convenient and cost-effective DRM, especially in the technical issues relating to the building or construction industry.

On the contrary, the shortcoming of mediation lies in its inability to enforce the decisions on the conflicting parties unlike in litigation or arbitration where the judgment can be implemented. For example, A successful DRM by mediation will come up with a settlement agreement between the parties. The settlement agreement is likened to having a new set of contract terms and conditions between the parties. Therefore, the resources (time, money, and efforts) spent to repackage the contract agreement become shattered if there is a breach, and the aggrieved party resorts to either litigation or arbitration to compel compliance or call for nullification.

2.4.3. Arbitration

The United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958 provides a legal basis for the recognition and enforcement of arbitral awards by signatory states. The conditions under which such awards may be invalidated are uncommon (Siyaidon, 2022). Thus, treaties among countries designated arbitration as the DRM for any dispute involving a foreign or local private consortium and a government (public agency). Furthermore, the World Bank, which remains one of the paramount sources of funding for PPP projects in developing countries, always emphasizes performance on the outstanding arbitral award before granting funds for additional physical projects.

However, arbitration in Nigeria is primarily regulated by the Arbitration and Conciliation Act (ACA) Chapter A18, Laws of the Federation of Nigeria 2004 which incorporates the UNCITRAL (United Nations Commission on International Trade Law) Model Law of International Commercial Arbitration 1985. Because Nigeria is a Federal Republic that comprises 36 States, States are allowed to enact their own arbitration laws to care for unique guidelines on peculiar issues. For instance, Lagos State promulgates Lagos State Arbitration Law, 2009 (LSAL) to regulate various issues on contractual disputes in trades including physical project development like PPP as it is likened to other states in the country.

Compared to litigation, arbitration is a prudent DRM. It offers a more streamlined and simplified discovery process, it contains fewer rules of evidence, it is not susceptible to multiple proceedings, it produces awards that are typically not subject to judicial review, and it offers greater control over the speed and length of the proceedings. On the other hand, arbitration can be more expensive than litigation. It can also be prolonged more than expected. For example, the costs of meeting the parties' obligations like payment for the arbitrators' forum among other procedural expenses could be exorbitant. In some instances, litigation may be subsidized to defray the costs of running the court system depending on the interest of the government in the subsisting dispute.

Arbitration is preferred among other DRMs. Currie and Teague (2015) observed in their survey of 143 multinational companies that 73% of the respondents prefer arbitration over litigation. Among the PPP participants, 44% of the companies favored arbitration as the resourceful dispute-resolution mechanism while 11% chose litigation over arbitration. It was noted that those who preferred litigation operated in developed countries where their confidence in the national court was high. However, with the spate of PPP

projects in developing countries, the impacting factors such as political interferences, discontinuity of the ongoing projects by the succession regimes, Moreover, lack of judiciary independence from the executive, etc., usually make many multi-national developers prefer international arbitration to the local one. Since it is a neutral ground where the host governments or PPP procuring authorities cannot influence the judgment.

2.4.4. Litigation

Litigation is cautiously used as the last resort when other DRMs fail to achieve the objectives of their deployments, especially in developing nations. Extensive pretrial procedures, lengthy adjudication, prolonged appeals process, and the stress of enforcing the judgments make litigation more expensive and clumsier for the disputing parties (Global Infrastructure Hub, 2018). The scenario could be worse when the disputed issue is restricted to a specific jurisdiction or when the judgment obtained cannot be enforced elsewhere. Therefore, resources committed to getting the judgment become wasted. For instance, a judgment obtained in a European Union (EU) country may be enforced as a matter of right in another member country under the pact signed at the Rome Convention but may not be enforceable in a non-EU member country. It is therefore imperative to be conscious of the nationalities of the parties involved in the PPP concession. Giving consent on the extent of the cases' jurisdiction and unrestricted enforcement of the court verdicts must be elaborated in the contract agreements.

Table 5: Framework for implementing DRMs in PPP projects

	Framework	DRM
1.	Understand the rights and obligations of the Procuring Authority and use contractual provisions to protect the rights of the Procuring Authority rather than as punitive measures.	Fast-track (on the spot) resolution process (Discussion between parties)
2.	Monitor the performance of the Project Company to be aware of potential issues and to mitigate the risk of disputes	
3.	Be receptive to claims and settle them early, where it is appropriate to do so.	
4.	Treat disagreements and disputes objectively: Do not allow a poor relationship with the Project Company to affect the approach taken to a dispute and do not let the existence of a dispute affect an otherwise positive relationship.	
5.	Clarify ambiguous and unclear contract drafting before it leads to a dispute.	Negotiation
6.	Ensure settlement agreements are prepared with appropriate legal input to ensure the dispute or disagreement is unambiguously resolved.	
7.	Consider the full costs of escalating a dispute and the chosen dispute resolution mechanism.	
8.	Actively seek negotiated outcomes to disagreements and disputes, as such outcomes have the potential to be significantly more efficient.	
9.	Appropriately prepare for and assemble adequate resources before entering a negotiation.	
10.	Consider associated private partners (including the construction contractor) in the resolution of disagreements and disputes related to them.	Mediation
11.	Consider mediation where a more structured approach to negotiation is required.	
12.	Appoint the right mediator acceptable to both parties.	Dispute Resolution Boards
13.	Utilize Dispute Resolution Boards where available	
14.	Set up the Dispute Resolution Board before a dispute arises, but also consider the changing needs of the Dispute Resolution Board for the project.	
15.	Appoint the right Dispute Resolution Board acceptable to both parties	
16.	Where available consider expert determination for disputes that are of a technical nature	Expert determination
17.	Appoint the right expert for expert determination	
18.	Consider the full implications of moving a dispute to arbitration	Arbitration
19.	Choose the right arbitrator(s)	
20.	Consider the full implications of moving a dispute to court	Litigation
21.	Prepare to provide detailed evidence when moving a dispute to court	

Source: Adapted from Global Infrastructure Hub (2018)

Similarly, the level of confidentiality is low going to the unrestricted attendance of the non-stakeholders during the court proceedings. Thus, the secret of the MoU or contract agreements signed by the parties will be available for public consumption against the interest of the contract. The outcome of this could be embarrassing and may result in a loss of morale and forestall subsequent transactions of the project. Also, a long period of waiting for the judicial resolution might cause untold distress, a decline in project economic

value, functional obsolescence, and eventual abandonment of the project. All these factors portend litigation as the most difficult DRM to adopt for the dispute settlement, especially where the parties cherished preserving their business relationships and intended not to truncate the project delivery. Hence, creating enabling situations to ensure the functionality of other DRMs should be crucial to the parties where dispute preventions seem unattainable.

Table 5 reveals the various conditions and guidelines for engaging various DRMs for PPP dispute settlement. As previously discussed, the Table suggests that litigation should be the last resort for the parties when adopting DRMs for dispute settlement.

3. Methodology

No record specifies the number of stakeholders involved in PPP educational infrastructure projects especially, student hostels' development in Nigeria at large, probably because the PPP procurement system in public universities is in a formative phase. Li *et. al.*, (2005) justify this scenario by stating that when PPP/PFI is emerging, the participants involved are prone to increase following the level of awareness or decrease upon the pessimistic scenarios over time; as such, the prompt assertion will be inaccurate. Thus, this study utilizes purposive sampling to elicit quantitative data from the entire population of 72 private investors which consist of developers and lenders or subscribers; and 54 members of the university PPP procuring committees comprising decision-makers and professional staff in the Division of Capital Projects and Development (DCPD), Divisions of Works and Maintenance Services (DWMS), Tenders Units, Legal Units, and other technocrats in the building industry that are acquainted with the PPP operations for over two (2) decades in the three (3) selected public universities in southwestern Nigeria namely, the University of Ibadan (U.I), Ibadan (Oyo State); Obafemi Awolowo University (OAU), Ile-Ife (Osun State); and the University of Lagos (UNILAG) Lagos State.

The rationale for choosing these public universities pivots on their rating as the first and second generations of tertiary institutions based on the year of establishment. They are also the foremost public universities patronizing PPP arrangements for educational infrastructure development. In addition, the choice of these study areas is because of the existence of substantial concessionaires and a sizeable number of PPP hostel projects that aided enough data collection in support of the theme of this research. Out of the 126 questionnaires administered, 96 were retrieved and used for the study. This represents a 76.2% response rate, and it enriches the findings of this study.

This study adopts descriptive statistics for the analysis of numerical data. The statistics techniques include percentage, mean value (MV), relative importance index (RII), and the Henry Garrett Ranking Method. Mean value (MV) was used to identify "causes of disputes"; while RII was applied to examine "dispute prevention strategies. The Henry Garrett Ranking Method was used to evaluate the "framework for implementation of DRMs".

Table 6 reveals the background of the sample frame which borders on the educational institutions' involvement in PPP concessions and the respondents' acquaintance with the subject matter in the study area. The analysis indicates that at least 60.4% of the respondents attest to the commencement of PPP arrangements in their universities between the years 2000 and 2005. This means that a larger percentage of the respondents in the study areas have about 15 to 20 years of experience which supports the findings of this research. 40% of the respondents identified themselves as representative of procurement authorities, including university employees, officials, and in-house professionals, while 59.4% represented private investors and developers. 76% of the respondents are members of various professional bodies. They demonstrated a good understanding of project construction, contract arrangements, and legal services relating to PPP dispute settlements in educational institutions based on their 10 to 20 years of familiarity with the subject of investigation. This further validates the suitability of data collected for this research.

Table 6: Background information of institutions and respondents

Background Information	Frequency	Percentage (%)
Response Per Institutions Operating PPP Projects		
University of Ibadan	17	17.7
Obafemi Awolowo University	58	60.4
University of Lagos	21	21.9
Total	96	100.0
Institution's Year of PPP Project Execution		
2000 to 2005	58	60.4
2006 to 2010	38	39.6
2011 and above	0	0.0
Total	96	100.0
Respondents' Group		
PPP procurement authority (University officials, DCPD, DWMS, Tenders Units, Legal Units, members of PPP concession procurement committee)	39	40.6
Private investors (developers, and lenders or subscribers)	57	59.4
Total	96	100.0
Year of experience in PPP concessions		
1 to 5 years	0	0.0
6 to 10 years	29	30.2
11 to 15 years	35	36.5
16 years and above	32	33.3
Total	96	100.0
Respondents' Academic Qualification		
SSCE/NABTEB	7	7.3
Ordinary National Diploma (OND)	14	14.6
Higher Dip/B.Sc./B.A/LLB/B.Ed./PGD	39	40.6
M.Sc./M.A/LLM/M.Ed.	23	24.0
PhD	13	13.5
Total	96	100.0
Respondents' Professional Affiliations		
Association of Nigerian University Principal Administrator (ANUPA)	12	12.5
Institute of Chartered Accountants of Nigeria (ICAN)	5	5.2
Nigerian Institution of Estate Surveyors and Valuers (NIESV)	6	6.2
Nigeria Institute of Quantity Surveyors (NIQS)	7	7.3
Nigeria Institute of Builders (NIOB)	5	5.2
Nigeria Institute of Architects (NIA)	10	10.4
Nigeria Society of Engineers (NSE)	18	18.8
Nigeria Institute of Town Planners (NITP)	6	6.2
Nigeria Bar Association (NBA)	4	4.2
Others (not classified)	23	24.0
Total	96	100.0

Source: Authors' study (2024)

4. Results

4.1. Causes of PPP contractual disputes in educational infrastructure development

The dispute-instigating issues are examined to know the crucial causes of conflict among the stakeholders. Thus, the result of responses determined by the mean values (MV) analysis in **Table 7** indicates that disputes coded as CD19, CD3, CD 22, CD20, CD13, CD14, CD1, CD11, CD2, CD4, CD27, CD23, CD8, CD6, CD26, CD10, CD12, CD25, CD5, CD24, and CD7, which have MV ranging from 4.71 to 4.10 are more critical among the 27 extracted bases of conflict.

Table 7: Causes of PPP project disputes in hostel infrastructure development

Item Code	Causes of Dispute	Mean	Std. Dev
CD19	Excessive contract sum variation	4.71	0.845
CD3	Lacuna in the contract agreements due to omissions and ambiguities	4.60	1.183
CD22	Trust variation and personality clashes	4.52	0.995
CD20	Ambiguous goals/objectives and unattainable anticipations on returns	4.51	1.142
CD13	Inadequate investigation and disordered preparation	4.50	1.086
CD14	Repudiation of contract	4.49	1.142
CD11	Poor financial affordability	4.43	1.238
CD1	Public opposition/unacceptability by the end users	4.43	1.112
CD2	Private sector failure/lack of skills and experience, and inexplicit roles of the stakeholders	4.35	1.095
CD4	Unfair risk allocation	4.33	1.419
CD27	Absence of a well-established legal framework	4.33	0.902
CD23	Unrealistic time targets for project delivery and concession periods	4.31	1.009
CD8	Lack of environmental impact assessment (EIA) causing improper operations	4.28	1.359
CD6	Unreliable feasibility studies	4.26	1.489
CD26	Inadequate compensation for displaced persons	4.25	0.918
CD10	Absence of proper communication and adequate interactions	4.22	1.233
CD12	Payment default due to high service charges to end-users	4.19	1.284
CD25	Reluctance to seek clarification on ambiguous instructions	4.18	1.056
CD24	Delay in rectifying defects during service delivery	4.17	1.053
CD5	Delay in decision-making	4.17	0.948
CD7	Insufficient financing capacity	4.10	1.497
CD9	Unexpected changes in tariffs and taxes	3.89	1.085
CD16	Unjustified changes to the scope of works	3.83	1.121
CD21	Inadequate transfer of risks	3.69	1.127
CD15	Inaccurate demand forecast	3.68	0.979
CD17	Contradictory terms in job specifications	3.66	1.113
CD18	Political interference	2.99	1.294

Source: Authors' study (2024)

4.2. Dispute Prevention Strategies in PPP Projects

The respondents' opinions sought to identify the dispute prevention strategies utilizing to avert potential conflicts that could affect PPP project delivery.

Table 8: Dispute prevention strategies (DPSs) utilized in PPP hostel projects

Item Code	Dispute Prevention Strategy (DPS)	Mean	Std. Dev	Relative Importance Index (RII)	Rank
DPS1	Training and education in communication	3.32	1.201	0.664	12th
DPS2	Allow for experts' opinions and cognate experience in specific operations	3.32	1.201	0.664	12th
DPS3	Transparent procedure to instil parties' confidence in resolution decisions or DRMs outcomes	3.44	1.568	0.688	11th
DPS4	Appropriate risk sharing	3.88	1.481	0.776	10th
DPS5	Realistic dispute assessment	3.91	1.473	0.782	9th
DPS6	Well-defined and accessible communication system	4.19	1.332	0.838	8th
DPS7	Quick response to claims	4.20	1.295	0.840	7th
DPS8	Clear goals and mutual benefits objectives	4.21	1.465	0.842	5th
DPS9	Reliable and sustainable service delivery	4.21	1.465	0.842	5th
DPS10	Transparent and all-inclusive participation in tariff review	4.24	1.271	0.848	4th
DPS11	Clarity of roles and responsibilities of stakeholders	4.41	1.261	0.882	3rd
DPS12	Extensive stakeholders' consultation in decision-making	4.50	1.161	0.900	1st
DPS13	Regular site meetings to minimize the accumulation of construction defects	4.50	1.161	0.900	1st

The outcome of the variables analyzed using the relative importance index (RII) as shown in **Table 8** suggested that "Extensive stakeholders' consultation in decision-making" (DPS12) and "Regular site meetings to minimize the accumulation of construction defects" (DPS13) has the highest values of 0.900 each and was ranked first. On the contrary, "Training and education in communication" (DPS1) and "Allow for experts' opinions and cognate experience in specific operations" (DPS2) had RII of 0.664 each and were ranked least among the considered strategies.

4.3. Framework for DRM Implementation in PPP Project Dispute Settlement

Tables 9, 10, 11, and 12 (attached as appendixes for the calculation of ranking values) expatiate the workout of Henry Garrett’s ranking value for the implementation framework of DRMs. Table 13 and Figure 1 show that 20% of respondents, equivalent to an average score of 72.00 on the Garrett scale, indicate that the "fast-track resolution process" is the most effective DRM framework for resolving PPP contract disputes. On the contrary, 8.0% or 29.70 of the Garrett average score suggests the “litigation” framework is the last resort for dispute settlement.

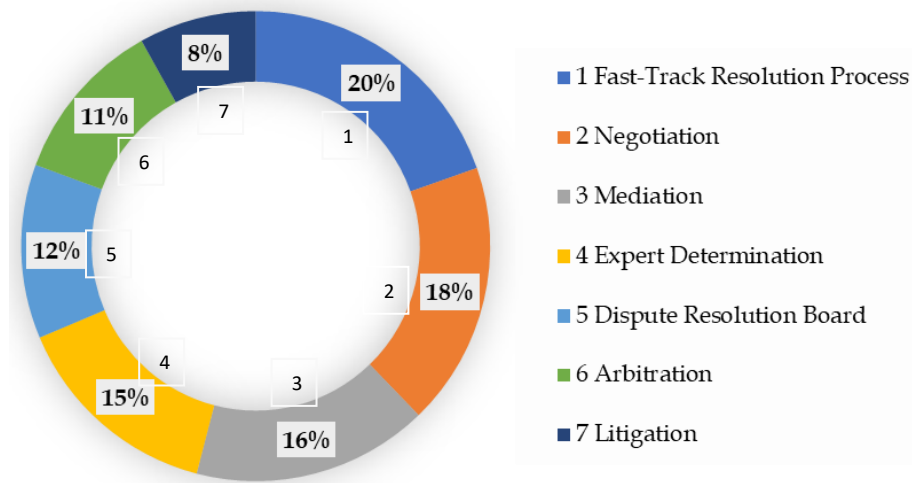


Fig. 1: Garrett’s ranking for the framework of DRMs adopted for PPP contract dispute settlement
 Source: Authors’ study (2024)

5. Summary and conclusion

Following the analyses of the data collected and the presentation of empirical results, the discussion of findings provides arguments on salient issues influencing the adoption of DRMs for PPP dispute settlement thus:

To effectively prevent or manage disputes in Public-Private Partnership (PPP) contracts, it is crucial to identify the types of disputes and understand their underlying causes. Extant literature revealed 27 different causes of disputes in PPP contracts; however, this study suggests that only 21 of these causes significantly impact the successful delivery of PPP projects in the study area. This finding highlights the unique nature of PPP contracts within educational institutions, which may explain the reduction in the number of identified causes. This perspective aligns with the work of Zheng et al. (2021), who noted that each PPP project has specific characteristics that influence the causes of disputes.

Preventing disputes is observed to be more prudent than seeking and adopting DRMs for escalated PPP project disputes. Out of the 13 dispute prevention strategies examined among the key stakeholders, “regular site meetings to minimize the accumulation of construction defects”, “extensive stakeholders’ consultation in decision-making”, “clarity of roles and responsibilities of stakeholders”, “transparent and all-inclusive participation in tariff review”, “reliable and sustainable service delivery”, “clear goals and mutual benefits objectives”, and “quick response to claims” were the 7 strategies given credence in the descending order of preference. This does not imply that the remaining 6 strategies are irrelevant but might be minor in contributing to the dispute prevention approach in the study area.

Given the implementation framework for the DRMs, the result of this study indicates that the framework for adopting and implementing a “fast-track resolution process” was ranked first. But the least ranked is the framework for “litigation. This finding supports the position of Currie and Teague (2015) when comparing two DRMs (arbitration and litigation). The survey used 143 multinational companies as the case study. They observed that 73% of the respondents (PPP participants) prefer arbitration over the 27% of respondents who chose litigation. These authors affirmed that a long wait for the judicial resolution might cause untold distress, a decline in project economic value, functional obsolescence, and eventual project termination. All these factors portend litigation as the most difficult DRM framework to adopt for dispute settlement, especially where parties cherish to preserve their “business relationships”, and do not intend to truncate the project delivery.

To this end, the relevance of resourceful DRMs to dispute resolution in PPP contracts in educational institutions has been greatly explored. The vital information about the root causes of PPP project disputes, cognate dispute prevention strategies, and feasible framework for implementing DRMs are deduced from the findings of this study. In addition, the stakeholders' understanding of DRMs via their familiarity, frequent use, and effective outcome reveal the level of preparedness to adopt and implement DRMs in settling contract disputes. In support of the need to utilize DRMs to enhance PPP project delivery, the determinant factors instigating stakeholders' interests were also put into perspective.

However, the outcome of this study requires participants' attention to the following recommendations:

To ensure the effectiveness of Dispute Resolution Mechanisms (DRMs), all parties must pay close attention to the 21 specific causes of disputes related to Public-Private Partnership (PPP) projects in the studied area. By promptly identifying and addressing these root causes with appropriate prevention strategies, conflicts can be managed before they escalate. Additionally, documenting the causes of disputes will enable the development of timely and practical solutions.

Taking preventive measures is wiser than relying solely on curative actions. The study identifies several dispute prevention strategies aligned with the underlying causes of disputes. These strategies should be expanded and put into practice by stakeholders. By doing so, we can reduce the frequency of dispute resolution methods (DRMs) and conserve valuable resources such as time, money, and energy.

This study highlights the growing interest in adopting a "fast-track resolution process" as the preferred method for dispute resolution management (DRM) in public-private partnership (PPP) project disputes. For this mechanism to be effective, stakeholders must demonstrate a genuine commitment to the process. If they fail to do so, uncertainties about responsibility-sharing may result in extended and complex contract disputes. Therefore, it is essential to implement a clear and informative action plan that will enhance the understanding and perception of all parties involved regarding the effectiveness of the resolution mechanisms.

6. Limitations and direction for future research

This study is limited in its geographical scope, focusing solely on three public universities in southwestern Nigeria: The University of Ibadan, Obafemi Awolowo University, and the University of Lagos. This regional limitation may affect the generalizability of the findings to other universities or regions with different socio-economic or political contexts. Additionally, the study relies on survey data collected from stakeholders involved in Public-Private Partnership (PPP) procurement, which may introduce potential biases, as the responses could reflect subjective perceptions rather than objective realities. While descriptive statistical tools effectively summarize trends, they limit the investigation of deeper causal relationships between variables. In conclusion, the study does not examine the long-term outcomes of the proposed dispute resolution frameworks, as its findings are based on cross-sectional data rather than longitudinal analysis.

Future research should broaden its geographical scope to include universities from other regions in Nigeria and beyond. This would allow for a comparison and generalization of findings across diverse contexts. Further, longitudinal studies are required to monitor the implementation and effectiveness of Dispute Resolution Mechanisms (DRMs) over time, especially for their impact on Public-Private Partnership (PPP) project outcomes.

Exploring how PPP frameworks intersect with cultural, political, and economic factors could provide deeper insights into the root causes of disputes and the adaptability of proposed frameworks. Furthermore, integrating qualitative methods, such as interviews or case studies, could enhance survey data by offering richer, contextualized understandings of stakeholder experiences. Lastly, conducting comparative studies on the effectiveness of DRMs in different sectors, such as healthcare or transportation, would further validate and refine the frameworks proposed in this research.

Authors' Contributions: The collaborative inputs of the authors as herein stated ensure the quality and completeness of this research work: Oyeyoade, S.F. initiated the research idea, conducted data collection and analysis, and drafted the manuscript. Ayorinde, O.I. worked on data validation, writing process, and proofreading. Oyewole, M.O. managed data processing, performed additional analysis, supervised the overall research process, and coordinated manuscript preparation.

Conflict of Interest: The authors declare no conflict of interest.

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APPENDIXES

Table 9: Henry Garrett ranking for DRMs’ framework development in PPP hostel projects

DRMs in PPP Projects	Framework	Frequency of Responses on DRMs Ranking							Total Response
		1st	2nd	3rd	4th	5th	6th	7th	
Fast-Track Resolution Process	Understand the rights and obligations of the Procuring Authority and use contractual provisions to protect the rights of the Procuring Authority rather than as punitive								
	Monitor the performance of the Project Company to be aware of potential issues and to mitigate the risk of disputes.	64	20	2	8	2	0	0	96
	Be receptive to claims and settle them early, where it is appropriate to do so								
	Treat disagreements and disputes objectively.								
	Clarify ambiguous and unclear contract drafting before it leads to a dispute.								
Negotiation	Ensure settlement agreements are prepared with appropriate legal input to ensure the dispute or disagreement is unambiguously resolved								
	Consider the full costs of escalating a dispute and the chosen dispute resolution mechanism.	15	73	4	2	2	0	0	96
	Actively seek negotiated outcomes to disagreements and disputes, as such outcomes have the potential to be significantly more efficient.								
	Appropriately prepare for and assemble adequate resources before entering a negotiation.								
Mediation	Consider associated private partners (including the sub-contractors) in the resolution of disagreements and disputes related to them								
	Consider mediation where a more structured approach to negotiation is required.	6	18	69	3	0	0	0	96
	Appoint the right mediator acceptable to both parties.								
Expert Determination	Where available consider expert determination for disputes that are of a technical nature	5	9	12	66	4	0	0	96
	Appoint the right expert for expert determination.								

Dispute Resolution Board	Utilize Dispute Resolution Boards where available	2	0	8	12	63	5	6	96
	Set up the Dispute Resolution Board before a dispute arises, but also consider the changing needs of the Dispute Resolution Board for the project.								
	Appoint the right Dispute Resolution Board acceptable to both parties								
Arbitration	Consider the full implications of moving a dispute to arbitration	2	1	13	14	8	58	0	96
	Choose the right arbitrator(s)								
Litigation	Consider the full implications of moving a dispute to court	0	5	3	0	6	24	58	96
	Prepare to provide detailed evidence when moving a dispute to court.								

Source: Authors' study (2024)

Calculating the Percent Position of each factor of the DRMs according to the respondents' ranking

$$\text{Percent Position} = \frac{100(R_{ij} - 0.5)}{N_j}$$

Where:

R_{ij} = 1st, 2nd, 3rd.....7th Ranks

N_j = 1, 2, 37 = 7 (scale of rank assignable to each factor by the respondents)

Table 10: Using Garrett's formula to determine the percentage position of responses

Rank	$\frac{100(R_{ij} - 0.5)}{N_j}$	Percent Position
1	$100(1 - 0.5) / 7$	7.14
2	$100(2 - 0.5) / 7$	21.43
3	$100(3 - 0.5) / 7$	35.71
4	$100(4 - 0.5) / 7$	50.0
5	$100(5 - 0.5) / 7$	64.29
6	$100(6 - 0.5) / 7$	78.57
7	$100(7 - 0.5) / 7$	92.86

Source: Authors' study (2024)

Table 11: Determining Garrett's values for the percent position using Henry Garrett's ranking conversion table

Rank	Percent Position Value	Garrett's Value
1	7.14	78
2	21.43	66
3	35.71	57
4	50.0	50
5	64.29	43
6	78.57	34
7	92.86	22

Table 12: Calculating Garrett’s Scores for DRMs

DRMs in PPP Projects	Framework	Multiplication of Garrett’s Values by the Frequency of Rank Per DRMs							Total Garrett’s Score per DRM
		1st *78	2nd *66	3rd *57	4th *50	5th *43	6th *34	7th *22	
Fast-Track Resolution Process	Understand the rights and obligations of the Procuring Authority and use contractual provisions to protect the rights of the Procuring Authority rather than as punitive	4992	1320	114	400	86	0	0	6912
	Monitor the performance of the Project Company to be aware of potential issues and to mitigate the risk of disputes.								
	Be receptive to claims and settle them early, where it is appropriate to do so								
	Treat disagreements and disputes objectively: Do not allow a poor relationship with the Project Company to affect the approach taken to a dispute and do not let the existence of a dispute affect an otherwise positive relationship.								
	Clarify ambiguous and unclear contract drafting before it leads to a dispute.								
Negotiation	Ensure settlement agreements are prepared with appropriate legal input to ensure the dispute or disagreement is unambiguously resolved	1170	4818	228	100	86	0	0	6402
	Consider the full costs of escalating a dispute and the chosen dispute resolution mechanism.								
	Actively seek negotiated outcomes to disagreements and disputes, as such outcomes have the potential to be significantly more efficient.								
	Appropriately prepare for and assemble adequate resources before entering a negotiation.								
Mediation	Consider associated private partners (including the sub-contractors) in the resolution of disagreements and disputes related to them	468	1188	3933	150	0	0	0	5739
	Consider mediation where a more structured approach to negotiation is required.								
	Appoint the right mediator acceptable to both parties.								
Expert Determination	Where available consider expert determination for disputes that are of a technical nature	390	594	684	3300	172	0	0	5140
	Appoint the right expert for expert determination.								
	Utilize Dispute Resolution Boards where available								
	Set up the Dispute Resolution Board before a dispute arises, but also consider								

Dispute Resolution Board	the changing needs of the Dispute Resolution Board for the project.	156	0	456	600	2709	170	132	4223
	Appoint the right Dispute Resolution Board acceptable to both parties.								
Arbitration	Consider the full implications of moving a dispute to arbitration	156	66	741	700	344	1972	0	3979
	Choose the right arbitrator(s)								
Litigation	Consider the full implications of moving a dispute to court	0	330	171	0	258	816	1276	2851
	Prepare to provide detailed evidence when moving a dispute to court.								

Source: Authors' study (2024)

Table 13: Determining Garrett Ranking for the DRMs Framework

DRMs in PPP Projects	Framework	Total Garrett's Score Divided by Total Number of Respondents	Average Score	Average Score Percent (%)	Rank
Fast-Track Resolution Process	Understand the rights and obligations of the Procuring Authority and use contractual provisions to protect the rights of the Procuring Authority rather than as punitive	6912/96	72.00	20.0	1
	Monitor the performance of the Project Company to be aware of potential issues and to mitigate the risk of disputes.				
	Be receptive to claims and settle them early, where it is appropriate to do so				
	Treat disagreements and disputes objectively: Do not allow a poor relationship with the Project Company to affect the approach taken to a dispute and do not let the existence of a dispute affect an otherwise positive relationship.				
	Clarify ambiguous and unclear contract drafting before it leads to a dispute.				
Negotiation	Ensure settlement agreements are prepared with appropriate legal input to ensure the dispute or disagreement is unambiguously resolved	6402/96	66.69	18.0	2
	Consider the full costs of escalating a dispute and the chosen dispute resolution mechanism.				
	Actively seek negotiated outcomes to disagreements and disputes, as such outcomes have the potential to be significantly more efficient.				
	Appropriately prepare for and assemble adequate resources before entering a negotiation.				
Mediation	Consider associated private partners (including the sub-contractors) in the resolution of disagreements and disputes related to them	5739/96	59.78	16.0	3
	Consider mediation where a more structured approach to negotiation is required.				

	Appoint the right mediator acceptable to both parties.				
Expert Determination	Where available consider expert determination for disputes that are of a technical nature	5140/96	53.54	15.0	4
	Appoint the right expert for expert determination.				
Dispute Resolution Board	Utilize Dispute Resolution Boards where available	4223/96	43.99	12.0	5
	Set up the Dispute Resolution Board before a dispute arises, but also consider the changing needs of the Dispute Resolution Board for the project.				
	Appoint the right Dispute Resolution Board acceptable to both parties.				
Arbitration	Consider the full implications of moving a dispute to arbitration	3979/96	41.45	11.0	6
	Choose the right arbitrator(s)				
Litigation	Consider the full implications of moving a dispute to court	2851/96	29.70	8.0	7
	Prepare to provide detailed evidence when moving a dispute to court.				

Source: Authors' study (2024)