



Arbitration versus Litigation: Perceptions of Effectiveness in Resolving Construction Disputes in Indonesia

¹Arief R. Julitjahjono, ²Arman Jayady, ³Dwi Dinariana

¹Arief R. Julitjahjono, Master of Civil Engineering Program, Universitas Persada Indonesia Y.A.I.

²Arman Jayady, Master of Civil Engineering Program, Universitas Persada Indonesia Y.A.I.

³Dwi Dinariana, Master of Civil Engineering Program, Universitas Persada Indonesia Y.A.I.

Corresponding Author: Arief R. Julitjahjono

ABSTRACT: *Dispute resolution plays an essential role in maintaining project continuity and legal certainty in the construction industry, where high-value contracts and technical complexities frequently lead to disagreements. In Indonesia, two primary mechanisms are available for resolving such disputes: litigation and arbitration. While arbitration is increasingly favored for its procedural flexibility and perceived neutrality, its actual effectiveness in the construction context—compared to litigation—remains underexplored in empirical research. This study aims to evaluate the effectiveness of arbitration as a dispute resolution method in Indonesia's construction sector, particularly in comparison to litigation. It also seeks to identify the underlying factors that influence arbitration's effectiveness and to examine the key challenges that hinder its optimal implementation. The research employs a mixed-methods approach, combining quantitative analysis of validated arbitration effectiveness indicators with qualitative insights from open-ended expert responses. Data were collected through structured questionnaires distributed to selected professionals in the construction industry, including lawyers, engineers, and contract administrators, who have experience both as claimants in arbitration proceedings and as observers or participants in court-based dispute resolution. These respondents are considered representative of stakeholders capable of assessing arbitration and litigation with informed judgment. The results indicate that arbitration is generally perceived as more effective than litigation, especially in terms of decision objectivity, procedural flexibility, and international enforceability. However, significant challenges remain, such as high arbitration costs, lengthy resolution times in complex cases, and limited public trust in arbitrator impartiality. These findings underscore the need for institutional improvements to enhance arbitration's credibility and accessibility in Indonesia's construction industry.*

KEYWORDS: Arbitration, Construction Disputes, Effectiveness, Alternative Dispute Resolution, Litigation

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I. INTRODUCTION

The construction sector plays a pivotal role in Indonesia's economic development, contributing 9.92% to the national Gross Domestic Product (GDP) and employing approximately 8.7 million workers by 2023 (Dienaputra, 2024). However, the complexity of construction projects, coupled with the high value of work packages and varied interpretations of contractual terms, has made the sector particularly prone to disputes. These disputes may arise from ambiguity in contracts, unforeseen site conditions, and the limited understanding of legal procedures among stakeholders.

In response to these challenges, the Indonesian legal framework mandates the use of alternative dispute resolution (ADR) mechanisms—including deliberation, mediation, conciliation, and arbitration—as stipulated in Article 88(2) of Law No. 2 of 2017 on Construction Services. Among these mechanisms, arbitration stands out for offering legally binding and final decisions, as affirmed under Law No. 30 of 1999. Despite its potential, the application of arbitration in construction remains underexplored, particularly in terms of its comparative effectiveness against litigation.

Empirical data from the Indonesian National Arbitration Board (BANI) reveals that construction disputes comprised 27% of its total caseload between 2014 and 2018, with more than 1,000 cases adjudicated over its 44-year history (Antara, 2025). Nevertheless, research examining the practical effectiveness of

arbitration especially when assessed through metrics such as resolution time, cost efficiency, and disputant satisfaction remains limited. Moreover, the determinants of arbitration success and the constraints hampering its implementation have yet to be systematically analyzed in the context of Indonesia's construction industry.

To address these gaps, this study aims to comprehensively evaluate the effectiveness of arbitration as a method of resolving construction disputes in Indonesia, in comparison with conventional litigation. It also seeks to identify the key factors that influence arbitration outcomes and to explore the major obstacles that may hinder its successful implementation. Through this investigation, the study contributes to a better understanding of arbitration's role and relevance in enhancing dispute resolution practices within the Indonesian construction sector.

The following section presents a critical review of the relevant literature, laying the conceptual foundation for understanding dispute resolution mechanisms, the notion of effectiveness, and the institutional and regulatory frameworks that govern arbitration in construction.

II. LITERATURE REVIEW

2.1. Effectiveness

Effectiveness is a fundamental concept in assessing the performance of programs, organizations, and processes, particularly in contexts where results and impacts are critical. According to the Kamus Besar Bahasa Indonesia (KBBI), the term "effective" refers to the ability to produce results, exert influence, have consequences, and generate benefits or utility⁽²⁰⁾.

From a general perspective, effectiveness is defined as the capacity to achieve desired outcomes or produce expected outputs. It implies the attainment of objectives or the generation of meaningful and measurable impacts. In this sense, something is considered effective when it yields results aligned with intended goals or creates a lasting and meaningful impression (Wikipedia, ²⁰).

Mardiasmo (2017) further refines this concept by linking effectiveness to organizational performance, describing it as the degree to which an organization achieves its stated objectives. According to him, effectiveness indicators serve to measure the extent to which outputs contribute toward the attainment of broader goals. The higher the alignment between outputs and objectives, the more effective the organizational performance is considered to be⁽²⁰⁾.

Complementing this view, Siagian emphasizes that effectiveness can be assessed through specific indicators such as adherence to time standards, the quality of work results, and the efficiency of costs incurred. These indicators serve as benchmarks for evaluating whether a process or activity delivers optimal value within expected constraints⁽²⁰⁾.

In the context of dispute resolution, particularly in construction arbitration, effectiveness may thus be evaluated through parameters such as time efficiency, cost predictability, quality and enforceability of decisions, and satisfaction of the involved parties. These dimensions collectively form the basis for assessing the utility and reliability of arbitration as a dispute resolution mechanism in comparison to litigation.

2.2. Claims and Disputes

Not all claims will become disputes, but if a dispute cannot be resolved amicably, it will proceed to court or arbitration. The Florida Department of Transportation noted that between 1997 and 1999, 21.15% of construction claims were resolved through arbitration, and 43.09% of total claims were successfully resolved and agreed upon.⁽²²⁾

Arcadis Global Construction Dispute Report, (2022), defines construction dispute as a disagreement in which two parties, typically the owner and the contractor, differ in the assertion of a perceived contractual right, resulting in a determination issued by the owner in accordance with the process specified in the contract. If the determination is disputed by the contractor, the matter becomes a formal dispute. The value of a dispute is the claimed value of additional work or event as asserted by the contractor. The length of a dispute is the duration between when the claim is formally submitted under the contract and the time of resolution or the conclusion of the hearing.⁽²³⁾

2.3. Arbitration

1. Act No 2 Year 2017 On Construction Services

Regulating the implementation of Construction Services, with one of its objectives being to ensure orderly implementation of construction services that guarantees equality between Service Users and Service Providers in exercising their rights and obligations, and to increase compliance with statutory provisions. (2) Article 88 states that construction disputes are resolved through deliberation, mediation, conciliation, and arbitration. The District Court is not specified as a venue for dispute resolution.

Dispute resolution through arbitration is equal to dispute resolution through the courts. Even if the courts still recognize the stages of appeal, cassation, and judicial review, the arbitration decision is final and

binding, and no further appeals are permitted. The arbitration body referred to in this study is the Indonesian National Arbitration Board (BANI), located at Wahana Graha, 1st & 2nd Floor, Jl. Mampang Prapatan No. 2, Jakarta 12760.

2. Act No 30 Year 1999 On Arbitration and Alternative Dispute Resolution.

1. Consideration (a) states that civil disputes can be resolved in general courts or through arbitration.
2. Article 1 (definition)
 - a. Paragraph (1) Arbitration is a method of resolving a civil dispute outside of general courts based on an arbitration agreement.
 - b. Paragraph (3) An arbitration agreement is an arbitration clause included in an agreement before a dispute arises or after a dispute arises.
 - c. Paragraph (7) An arbitrator is one or more persons selected by the disputing parties or appointed by a District Court or an arbitration institution to issue a decision on a particular dispute that has been submitted for resolution through arbitration.
 - d. Paragraph (8) An arbitration institution is a body selected by the parties to issue a decision on a particular dispute or to provide a binding opinion regarding a particular legal relationship where a dispute has not yet arisen.
3. Article 3. The District Court is not authorized to adjudicate disputes between parties bound by an arbitration agreement.
4. Article 4. Paragraph (1) If the parties have agreed that the dispute between them will be resolved through arbitration, the arbitrator shall have the authority to determine in his/her decision the rights and obligations of the parties.
5. Article 15
 - a. Paragraph (1) The appointment of two arbitrators by the parties authorizes the two arbitrators to select and appoint a third arbitrator.
 - b. Paragraph (2) The third arbitrator as referred to in paragraph (1) shall be appointed as the chair of the arbitration panel.
6. Article 21. The arbitrator or arbitration panel shall not be held legally responsible for any actions taken during the trial process to carry out their functions as arbitrator or arbitration panel, unless it can be proven that such actions were acted in bad faith.
7. Article 27. All dispute hearings by the arbitrator or arbitration panel shall be conducted in private.
8. Article 60. The arbitration award is final and has permanent legal force and is binding on the parties.
9. Article 61. If the parties do not voluntarily implement the arbitration award, the award shall be enforced based on the order of the Head of the District Court.
10. Article 77
 - a. Paragraph (1) Arbitration costs shall be borne by the losing party.
 - b. Paragraph (2) If the claim is only partially granted, the arbitration costs shall be borne equally by the parties.

3. Rule of Badan Arbitrase Nasional Indonesia Year 2025 (<https://baniarbitration.org/> accessed on 27 Juni 2025 at 10.49)

1. Article 4. Paragraph (6). Time Limit for Case Examination
The case examination will be completed within a maximum of 180 (one hundred and eighty) days from the date the Arbitration Panel is formed. In special circumstances where the dispute is highly complex, the Arbitration Panel has the right to extend the time limit by formal notification to the parties.
2. Article 16. Applicable Law
 - a. Paragraph (1) The law governing the subject matter of the dispute is the law chosen in the agreement.
 - b. Paragraph (2) In applying applicable law, the Arbitration Panel must consider the provisions of the agreement as well as relevant practices and customs in the business activities concerned.
 - c. Paragraph (3) The Arbitration Panel may exercise amiable compositeur authority and/or decide ex aequo et bono.
3. Cost of Arbitration
Refer to an Indonesia arbitration, BANI, found the cost for dispute resolution as stipulated in table 2.1.

Table 2.1. Cost of Arbitration

| Claim value (IDR) | Charge (%) | Claim value (IDR) | Charge (%) | Claim value (IDR) | Charge (%) |
|-------------------|------------|-------------------|------------|---------------------|------------|
| < 1.000.000.000,- | 10,0 | 15.000.000.000,- | 5,0 | 500.000.000.000,- | 1,0 |
| 2.500.000.000,- | 9,0 | 25.000.000.000,- | 4,0 | 1.000.000.000.000,- | 0,8 |
| 5.000.000.000,- | 8,0 | 50.000.000.000,- | 3,0 | 2.000.000.000.000,- | 0,6 |

| | | | | | |
|--|-----|-------------------|-----|----------------------|-----|
| 7.500.000.000,- | 7,0 | 100.000.000.000,- | 2,0 | >2.000.000.000.000,- | 0,6 |
| 10.000.000.000,- | 6,0 | 250.000.000.000,- | 1,5 | | |
| a. For the claim value more than IDR 1.000.000.000,- and in between value mentioned in this table, calculation of charge shall use interpolation method. | | | | | |
| b. The charge shall be paid upon BANI issued an invoice. | | | | | |
| c. The charge subject to Added Value Tax | | | | | |

Source : Indonesia arbitration, BANI.

4. Uncitral Model Law on International Commercial Arbitration

1. Article 17. Arbitration can address multiple issues within a single case, including cross-sectoral and cross-jurisdictional matters.
2. Article 19. Parties are free to agree on the procedure to be followed in the arbitration process.
3. Chapter 4. Parties are free to choose arbitrators with specific expertise relevant to their dispute.
4. Article 35. An arbitral award shall be final and binding, and not subject to appeal.
5. Chapter 6. The parties shall be treated with equality and each party shall be given a full opportunity of presenting its case (The parties have a fair opportunity to present arguments and evidence).
6. Article 36. An arbitral award shall be recognized as binding and enforceable in any state.
7. Chapter 8. Parties can control costs by choosing flexible procedures and efficient arbitrators.
8. Article 22. Arbitration proceedings and documents are typically confidential, safeguarding sensitive information.
9. Article 18. Parties have the right to agree on the procedures to be followed, ensuring their rights are protected (Arbitration provides protection for the rights of the parties as agreed).

2.4. Theoretical basis

The theoretical foundation of this study draws upon key concepts in construction management, contract administration, and dispute resolution theory. These concepts are derived from academic instruction, professional practice, and authoritative texts relevant to arbitration in the construction sector.

First, Dinariana (2024) emphasizes the importance of legal literacy and contractual competence in managing construction projects. In her course on Legal Aspects and Contract Management, she underscores that errors in interpreting or administering contracts often lead to disputes that compromise both time and cost performance. This perspective supports the notion that preventive legal understanding is essential in reducing the incidence and severity of construction disputes ⁽³⁾.

Second, Jayady (2023) highlights the role of effective project management in mitigating conflicts. In his Construction Project Management course, he identifies disputes as one of the major risks in construction projects, along with delays, cost overruns, client dissatisfaction, and non-compliance with safety, quality, and environmental standards. He posits that systematic project control and communication can significantly minimize the likelihood of conflicts escalating into formal disputes ⁽⁴⁾.

Beyond academic instruction, legal scholarship also offers critical insights. Kartasasmita (2021), in his book *Legal Certainty in the Arbitration Process*, articulates several advantages of arbitration over litigation. These include party autonomy in selecting arbitrators with relevant expertise, the flexibility to choose applicable law and procedural rules, expedited and informal hearings, confidentiality of proceedings, and the enforceability of final and binding decisions. Notably, he argues that the arbitration process is conducive to maintaining long-term business relationships, as it emphasizes fairness and seeks win-win outcomes rather than adversarial judgments ⁽⁷⁾.

In the context of global project management, the Project Management Body of Knowledge (PMBOK® Guide)—Sixth Edition—provides a useful framework for evaluating risk severity, where time delays exceeding six months or cost overruns above USD 5 million are classified as very high-risk events ⁽⁵⁾. This benchmark informs the urgency of resolving construction disputes efficiently, making arbitration a strategic option when project continuity and financial stability are at stake.

Moreover, Soemartono and Margono (2019) in their textbook *Arbitration, Mediation, and Negotiation*, emphasize that arbitration offers an effective, efficient, and commercially friendly dispute resolution mechanism. They classify arbitration as part of Indonesia's alternative dispute resolution (ADR) system, alongside mediation and negotiation, which collectively aim to reduce court congestion and promote business certainty. The authors further stress that the effectiveness of arbitration is contingent on the good faith and cooperation of the parties involved, reinforcing the importance of procedural integrity and mutual respect in arbitration practice ⁽⁶⁾.

Taken together, these theoretical perspectives underline the central themes of this research: that the effectiveness of arbitration in resolving construction disputes hinges on legal awareness, project management capacity, party autonomy, procedural efficiency, and institutional credibility. These foundations provide the

analytical lens through which the study evaluates arbitration's practical performance relative to litigation in the Indonesian construction sector.

2.5. Previous Research

Numerous studies have investigated the effectiveness of arbitration as an alternative dispute resolution (ADR) mechanism in the construction sector, providing insights into its comparative advantages and limitations relative to litigation.

Dalimunthe et al. (2024) emphasized that arbitration has been consistently recognized as an effective mechanism for resolving disputes outside the judiciary. Their study highlighted several key advantages of arbitration, including its speed, procedural flexibility, confidentiality, and the autonomy it provides to parties in selecting arbitrators. Moreover, arbitration awards were found to possess the same legal force as court decisions, thereby offering legal certainty and cross-border enforceability—an essential feature for international construction contracts.

A similar conclusion was drawn by Agustina (2024), who underscored arbitration's superiority over litigation in terms of efficiency and party autonomy. She noted that parties benefit from greater procedural customization and faster dispute resolution. However, she also acknowledged certain drawbacks, including limited opportunities to appeal, the complexity of arbitration procedures, and constraints in the choice of enforcement forums. These limitations call for a nuanced understanding of when arbitration is most appropriate.

The link between contract quality and dispute occurrence was analyzed by Wati, Sarifudin, and Wati (2024), who argued that incomplete or ambiguous contracts significantly contribute to construction disputes. Their empirical findings revealed that although litigation (47%) remains the dominant resolution pathway, arbitration (35%) and dispute boards (18%) are increasingly utilized, indicating a shift toward more specialized and efficient mechanisms.

In a critical review of judicial oversight over arbitral awards, Pertiwi et al. (2024) found that 90% of BANI's considerations aligned with established construction contract principles, compared to only 5% alignment in court decisions. Interestingly, they also observed that courts were more effective in assessing document authenticity and detecting fraud, while BANI arbitrators demonstrated deeper comprehension of contractual substance. Despite this, approximately 40% of BANI decisions appealed to district courts were overturned—highlighting potential inconsistencies in legal interpretation and judicial review.

Jeremy (2023) provided a comprehensive taxonomy of the causes of construction claims in Indonesia, identifying key triggers such as owner-induced delays, scope and schedule changes, unfavorable site conditions, and failure to reach agreement on variation orders. These findings contextualize the types of disputes most commonly referred to arbitration.

Ilma et al. (2020), in their state-of-the-art review of dispute resolution practices in Indonesia, noted that while both court and non-court mechanisms are available, stakeholders still prioritize mediation, conciliation, and negotiation before resorting to arbitration. This sequence suggests that arbitration is often considered a “last resort” after other ADR methods fail to produce agreement.

Wulandari and Pujiyono (2018) provided a corporate-level case study of PT Utama Karya, where arbitration was used in 71% of disputes—far exceeding court usage (19%)—indicating a strong institutional preference for arbitration in certain companies. This finding is reinforced by Rini et al. (2024) in Pekanbaru, where dispute resolution methods included mediation, arbitration, negotiation, and conciliation, with late payments being the most frequent issue. Their research further emphasized that proactive contract management—such as timely amendments and mutual fulfillment of obligations—plays a critical role in dispute prevention.

From a comparative international perspective, Barough et al. (2013) evaluated dispute resolution in the Malaysian construction industry and concluded that while mediation outperforms arbitration in terms of cost and time, arbitration provides higher decision reliability and legal enforceability. Notably, their study found that arbitration was predominantly used for payment disputes (60%), variation orders (40%), and contract interpretation (40%), with moderate levels of dissatisfaction regarding cost and time, but high satisfaction with outcome fairness.

Adding further depth, Abwunza et al. (2021) introduced an organizational justice perspective to measure arbitration effectiveness, which they defined as a function of cost, time, and quality of outcome. Their quantitative study reported arbitration costs ranging from 0.7% to 61% of the claim value, and durations from 3 to 26 months. Perceptions of fairness were high (71% rated the process as fair), with 100% respondent satisfaction in outcome justice, although only 90% indicated willingness to reuse arbitration in future disputes—suggesting room for improvement in relational or procedural dimensions.

Collectively, these prior studies provide a valuable empirical and theoretical foundation for the present research. They highlight both the strengths and challenges of arbitration, underscore its increasing relevance in

resolving construction disputes, and identify key variables—such as contract quality, arbitrator competence, legal certainty, and procedural flexibility—that will inform this study’s analytical framework.

III. RESEARCH METHODOLOGY

The relationship between research objectives, types of data needs, data collection techniques, data analysis techniques, and expected results is shown in Table 3.1.

Table 3.1. Relationship between research objectives, types of data needs, data collection techniques, data analysis techniques, and expected results..

| No | Research Objectives | Type Requirements Data | Sources (Data Collection Techniques) | Data Analysis Techniques | Expected Results (Output) |
|----|--|---|---|---|--|
| 1 | Assessing the effectiveness of arbitration in resolving construction disputes in Indonesia compared to litigation. | Respondents' assessment of each effectiveness measurement indicator | Primary data from respondents' answers. | Descriptive statistical analysis, namely the mean, median, and mode | The level of effectiveness of the use of arbitration in resolving construction disputes in Indonesia compared to litigation. |
| 2 | Identifying factors influencing the effectiveness of arbitration in resolving construction disputes. | Respondents' answers to open-ended questions about factors influencing arbitration effectiveness. | Primary data from respondents' answers. | Interpretive analysis | The list of factors influencing the effectiveness of arbitration in resolving construction disputes. |
| 3 | Identifying obstacles faced by arbitration in resolving construction disputes in Indonesia. | Respondents' answers to open-ended questions about obstacles to the arbitration process. | Primary data from respondents' answers. | Interpretive analysis | List of obstacles faced by arbitration in resolving Construction disputes in Indonesia |

Source: Researcher's Processing

3.1. Research Stages.

The research was conducted in several systematically structured stages to ensure methodological rigor and the validity of findings. The sequence of these stages is outlined as follows:

1. Identification of Arbitration Effectiveness Indicators from Literature
A comprehensive literature review was conducted to identify potential indicators used to measure the effectiveness of arbitration in resolving construction disputes. Sources included academic publications, regulatory frameworks, and international best practices.
2. Selection and Refinement of Indicators
From the initial pool of indicators, overlapping and redundant elements were consolidated through qualitative synthesis. The outcome of this process was a curated list referred to as the Selected Arbitration Effectiveness Indicators, representing dimensions most relevant to the Indonesian construction arbitration context.
3. Design and Administration of Type 1 Questionnaire for Content Validation
A structured Type 1 questionnaire was developed and distributed to a panel of experts with relevant professional experience. The purpose was to conduct a Content Validity Test using the Lawshe Content Validity Ratio (CVR) method. This stage resulted in a validated set of indicators known as the Validated Arbitration Effectiveness Indicators.
4. Design and Administration of Type 2 Questionnaire for Reliability Testing
To assess internal consistency, a Type 2 questionnaire was constructed using the validated indicators. The questionnaire was administered in two separate rounds (test–retest) to a selected group of respondents, with responses analyzed using the Spearman rank-order correlation method to determine reliability.
5. Establishment of Reliable Indicators
Based on the results of the reliability analysis, indicators demonstrating acceptable levels of stability and consistency were retained. These indicators constitute the Reliable Arbitration Effectiveness Indicators, which form the basis of the subsequent empirical analysis.
6. Primary Data Collection
The final version of the Type 2 questionnaire was distributed to targeted respondents who met predefined criteria, including experience in construction arbitration. Data collected included both closed-ended responses for quantitative analysis and open-ended responses to capture qualitative insights regarding influencing factors and perceived obstacles.
7. Data Processing and Analysis

Quantitative data were processed using descriptive statistical techniques (e.g., mean, standard deviation), while qualitative data were analyzed through interpretative thematic coding. This dual-method approach facilitated a comprehensive evaluation of arbitration effectiveness.

8. Discussion of Findings

Research findings were synthesized and discussed in relation to existing literature and theoretical frameworks. Key themes, patterns, and discrepancies were examined to generate insights into the practical implications of arbitration effectiveness in the construction sector.

9. Conclusion and Recommendations

The final stage involved formulating conclusions based on empirical findings and providing practical recommendations for improving arbitration practices. The study also identified areas for future research to enhance the body of knowledge in construction dispute resolution.

3.1.1. Identification of Arbitration Effectiveness Indicators from Literature.

This stage is the first or earliest stage of this research, with the aim of identifying indicators that influence arbitration effectiveness. This stage is conducted by conducting a literature study to find and record indicators from previously published research and from regulatory sources on arbitration.

The expected outcome of this stage is a List of Arbitration Effectiveness Indicators Based on Literature Study Results, compiled from the various sources mentioned above.

3.1.2. Selection and Refinement of Indicators.

The list of arbitration effectiveness indicators from the literature study was then screened to obtain a list of indicators that had passed the selection stage.

The selection process involved grouping all identified indicators. If there were any duplicate indicators, only one was used. This reduced the number of indicators if multiple indicators were duplicated from different sources. This selection process was conducted independently by the researcher, and the expected outcome of this stage is a table of Selected Arbitration Effectiveness Indicators.

3.1.3. Design and Administration of Type 1 Questionnaire for Content Validation

The Type 1 questionnaire was designed to conduct a Content Validation Test on Selected Arbitration Effectiveness Indicators. Respondents to this questionnaire were experts meeting the following criteria:

1. Have more than 10 (ten) years of professional experience.
2. Can identify the differences between arbitration and court proceedings in construction dispute resolution.
3. Have a minimum of a bachelor's degree.

The method used to design this type 1 questionnaire was to solicit the opinions of 10 (ten) experts on a list of selected Arbitration Effectiveness Indicators. The experts were asked to provide their opinions on each indicator individually, determining whether it was essential (quite important) or not necessary (not necessary) in measuring the effectiveness of arbitration compared to court proceedings in resolving construction disputes. If an expert answered "essential" to an indicator, the indicator received a score of 1. If the expert answered "not necessary," the indicator received a score of 0.

Later, the expert responses received will be tabulated and analyzed using the Content Validity Ratio (CVR) method. CVR is a statistical method used to evaluate the content validity of an instrument, specifically to assess the relevance of each item within the instrument based on the assessment of an expert panel. CVR was developed by Lawshe (1975) and is calculated using the following formula:

$$CVR = \frac{(n_e - N/2)}{N/2} \quad \begin{array}{l} n_e = \text{number of expert who judges the particular indicator is essential} \\ N = \text{number of expert involved in discussion} \end{array}$$

The CVR calculation method was introduced by Gregory E. Gilbert, EdD, MSPH, and Susan Prion, EdD, RN, CNE, in their paper, "Making Sense of Methods and Measurement: Lawshe's Content Validity Index," an article in *Clinical Simulation in Nursing* published in December 2016. They provide recommendations for minimum CVR values that meet content validation requirements, as shown in Table 3.2 below.

Table 3.1. Minimum CVR Value Based on Number of Experts (Lawshe, 1975)

| Number of Experts (N) | Minimum CVR Value |
|-----------------------|-------------------|
| 5 | 0.99 |
| 10 | 0.62 |
| 15 | 0.49 |
| 20 | 0.42 |
| 30 | 0.33 |

CVR Value Interpretation:

CVR = 1.00 : All experts rated the item as "essential."

CVR = 0.00 : Half or fewer experts rated the item as "essential."

CVR < 0 : The item was not considered essential by the majority of experts.

CVR > 0 : The item is considered to have content validity.

3.1.4. Design and Administration of Type 2 Questionnaire for Reliability Testing

The objective of this stage is to develop a draft Type 2 Questionnaire, which will be distributed to respondents to provide their opinion on each indicator, indicating whether each indicator indicates:

1. Courts are better.
2. Courts and arbitration are equally good.
3. Arbitration is better.

This will allow the Type 2 Questionnaire to assess the effectiveness of arbitration compared to litigation in resolving construction disputes and to obtain qualitative answers regarding the factors influencing the effectiveness of arbitration in resolving construction disputes and the obstacles faced by arbitration in resolving construction disputes in Indonesia.

3.1.5. Establishment of Reliable Indicators

The purpose of this stage was to conduct a reliability test on the Type 2 Questionnaire and assess the consistency of respondents' responses.

The reliability test used a test and retest method. The Type 2 questionnaire was distributed to five respondents, and their responses were recorded. Within one week, the same questionnaire was distributed again and respondents were asked to respond again. The responses from these two periods were then analyzed. This method was chosen because it is simple yet produces reliable results.

Reliability testing using the test-retest method is conducted by measuring the consistency of measurement results at two different times. To assess reliability, the formula used is the correlation coefficient between the results of the first measurement (test) and the second measurement (retest). The Spearman correlation equation can be used in the analysis.

$$\rho = 1 - (6 \cdot \sum d^2) / (n \cdot (n^2 - 1))$$

Where

ρ (rho): Spearman coefficient.

$\sum d^2$: is the sum of the squares of the differences in ranks between two variables for each pair of data..

n: is the number of data pairs.

Coefficient Interpretation ρ :

| | |
|-------------|----------------|
| $\geq 0,80$ | Very reliable |
| 0,60–0,79 | Quite reliable |
| 0,40–0,59 | Less reliable |
| $< 0,40$ | Not reliabel |

3.1.6. Primary Data Collection.

At this stage, data was collected from respondents' responses to the distributed questionnaire. The questionnaire referred to here is a questionnaire that has passed a reliability test, also known as a reliable questionnaire. The purpose of this stage is to collect data from the respondents who received the questionnaire and to collect data in three parts:

1. Part 1: Data regarding the assessment of the effectiveness of arbitration in resolving construction disputes in Indonesia compared to litigation.
2. Part 2: Data regarding factors influencing the effectiveness of arbitration in resolving construction disputes.
3. Part 3: Data regarding obstacles faced by arbitration in resolving construction disputes in Indonesia.

Data collection was conducted by distributing the questionnaire to respondents online via Google. A PDF file was also provided to allow respondents to choose which method they found easiest to answer.

The expected outcome of this stage is that respondents will provide answers to the questionnaire questions, and these answers will be collected and presented in tabulated form.

3.1.7. Data Processing and Analysis

The final or seventh stage of this research is Data Processing, where the purpose of this stage is to analyze the data obtained.

The data analysis method used to analyze the questionnaire responses to closed-ended questions was descriptive statistical analysis, a method for describing, summarizing, and presenting data as is without conducting hypothesis testing. Specifically, this study conducted the analysis by calculating the average score (mean) for each indicator. The goal was to provide a general overview of the respondents' data trends.

Respondents' responses to open-ended questions were analyzed using Interpretative Analysis, a process of interpreting the meaning of qualitative data, particularly narrative data such as open-ended questions, interviews, or observations. The goal was to understand the deeper meaning, purpose, and implicit messages behind respondents' words, rather than simply recording their frequency. The qualitative analysis focused on the subjective interpretation of the data, taking into account the respondents' social, cultural, and experiential contexts.

The expected outcomes of this stage are:

1. To assess the effectiveness of arbitration in resolving construction disputes in Indonesia compared to litigation.
2. List the factors that influence the effectiveness of arbitration in resolving construction disputes.
3. List the obstacles faced by arbitration in resolving construction disputes in Indonesia.

3.2. Respondent Criteria

In this study, respondents were selected who met the following criteria:

1. Have handled arbitration cases.
2. Can assess the effectiveness of court proceedings.
3. Serve as the applicant or represent the applicant in arbitration cases.
4. Handle arbitration cases in the construction sector.
5. Handle construction project disputes within Indonesia.
6. Hold a minimum of a bachelor's degree.
7. Handle domestic arbitrations.
8. Handle arbitrations between 2010 and 2021.

IV. DATA ANALYSIS

4.1. Research Results

From the identification of arbitration effectiveness indicators, the literature review yielded 49 indicators. After conducting an independent selection of similar indicators, the results obtained at this stage were a table of Selected Arbitration Effectiveness Indicators, as shown in Table 4.2, which contains 20 (twenty) effectiveness indicators.

Table 4.1. List of Selected Arbitration Effectiveness Indicators

| No. | Indicator | Definition | Original Phrase | Source |
|-----|--|---|---|------------------------|
| 1. | Faster dispute resolution times. | Dispute resolution is faster than litigation. | Arbitration prevents delays due to administrative and procedural issues. | Agustina et al, (2024) |
| 2. | Costs are more predictable and controllable.. | Costs can be controlled. | While arbitration costs can be significant, in many cases, it is more cost-effective than conventional court proceedings, which can involve attorney fees, court costs, and longer timeframes. | Agustina et al, (2024) |
| 3. | Trial decisions are final and cannot be appealed. | Arbitration results are effective in resolving disputes formally, finally, and legally binding. | "Most of them believed in effectiveness of arbitration process regarding outcome." | Barough et al. (2013) |
| 4. | Confidentiality of documents and information of the disputing parties is maintained. | The confidentiality of the disputed topic and the disputing parties is guaranteed | The arbitration process can be conducted confidentially, meaning the dispute does not become public information. This can be an advantage for parties who wish to maintain the confidentiality of business information or | Agustina et al, (2024) |

| No. | Indicator | Definition | Original Phrase | Source |
|-----|--|--|---|---|
| | | | maintain privacy. | |
| 5. | Prioritizes peace between the parties during the trial process. | The arbitrator strives to facilitate peace between the disputing parties during the arbitration process. | The arbitrator or arbitral tribunal must prioritize peace between the disputing parties during the arbitration process. | Bunga Sari et al, (2024) |
| 6. | Trial procedures, locations, and schedules are flexible and can be arranged according to the parties' agreement. | The parties involved can determine the hearing schedule, hearing procedures, and choose their own arbitrator. | The parties can adjust the rules and procedures to suit their needs, which can expedite dispute resolution. | Agustina et al, (2024) |
| 7. | Can choose arbitrators/judges who understand construction issues. | Construction arbitrators understand construction issues. | The selected arbitrator is usually an expert, but not always a legal expert. He or she may have expertise in various fields. He or she could be an engineer, a business manager, an insurance expert, a banking expert, and so on. | Sofyana et al, (2024) |
| 8. | Can choose arbitrators/judges with integrity. | Arbitrators are honest and fair, and no Indonesian arbitrator has ever been proven to have accepted bribes. | Disputing parties can choose an arbitrator they believe has sufficient experience, knowledge, honesty, and fairness, as well as sufficient background in the disputed issues. | Agustina et al, (2024) |
| 9. | Easily accessible to foreign business actors in Indonesia. | For foreign nationals, resolving disputes in Indonesia through arbitration is considered easier than resolving them through district courts. | According to entrepreneurs in developed countries, judges in developing countries are not yet proficient in handling complex international trade and financial disputes. | Dalimunthe et al, (2024) |
| 10. | More objective according to international business actors in Indonesia.. | For foreign nationals, resolving disputes in Indonesia through arbitration is considered more objective than resolving them through district courts. | For entrepreneurs in developed countries, resolving disputes through courts will take a relatively long time. For foreign entrepreneurs, resolving disputes through arbitration is the right choice, as they consider local systems and courts to be different from those in their own countries. | Dalimunthe et al, (2024) |
| 11. | Parties have an active role in determining trial procedures. | The parties have an active role in determining the arbitration procedure. | "Parties are free to agree on the procedure to be followed in the arbitration process." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 19. (uncitral.un.org) |
| 12. | Parties are more satisfied with the trial process and outcomes. | Parties tend to be more satisfied with the process and outcome of arbitration than with litigation. | "Most parties express higher satisfaction with arbitration outcomes compared to court litigation." | Barough et al. (2013). |
| 13. | Can handle multiple issues in a single case, including across sectors and jurisdictions. | Arbitration can address multiple issues in a single case, including across sectors and jurisdictions.. | "Arbitration can address multiple issues within a single case, including cross-sectoral and cross-jurisdictional matters." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 17. (uncitral.un.org) |
| 14. | Provides a fair opportunity for each party to present arguments and evidence | The parties have a fair opportunity to present arguments and evidence.. | "The parties shall be treated with equality and each party shall be given a full opportunity of presenting its case." | Redfern and Hunter on International Arbitration, Bab 6. (law.fudan.edu.cn) |

| No. | Indicator | Definition | Original Phrase | Source |
|-----|--|---|---|--|
| 15. | Trial decisions are more easily recognized and enforced across borders. | Arbitral awards are more easily recognized and enforced in many countries. | "An arbitral award shall be recognized as binding and enforceable in any state." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 35-36. (uncitral.un.org) |
| 16. | Resolves disputes without national legal intervention, political pressure, or public opinion | The closed nature of the hearing eliminates the potential for interference from other parties.. | "Arbitration proceedings and documents are typically confidential, safeguarding sensitive information." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 22. (uncitral.un.org) |
| 17. | Can resolve disputes across a broad scope beyond the national borders of the parties. | Arbitration awards are more easily recognized and enforced in various countries. | "An arbitral award shall be recognized as binding and enforceable in any state." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 35-36. (uncitral.un.org) |
| 18. | Reduces the burden of litigation in district courts. | Arbitration awards have the same legal force as court decisions. | Arbitration as a method of dispute resolution outside the courts has legal recognition and a basis in Indonesia, and several Indonesian legal experts have reviewed and supported the use of arbitration as a dispute resolution method. | Agustina et al, (2024) |
| 19. | Maintains business relationships after dispute resolution.. | The settlement process through arbitration can still maintain business relationships between the parties. | The arbitration process, which focuses more on solutions than on conflict, helps maintain harmonious working relationships. Amicable and efficient dispute resolution strengthens relationships with clients and subcontractors, which is essential for long-term partnerships and future business opportunities. | Sofyana et al, (2024) |
| 20. | Ensures the protection of the parties' rights through procedural agreements. | Arbitration protects the rights of the parties as agreed. | "Parties have the right to agree on the procedures to be followed, ensuring their rights are protected." | UNCITRAL Model Law on International Commercial Arbitration, Pasal 18. (uncitral.un.org) |

Source: Researcher's Processing

4.1.3. Questionnaire Type 1 (Content Validation Test).

The content validation test was conducted by experts who met the minimum criteria of a bachelor's degree and at least 15 years of professional experience. The results of this stage are as shown in Table 4.2.

Table 4.2. Test Model for the Content Validation Test Indicator List (Questionnaire Type 1)

| No | Statement | E | N |
|----|--|-------------------------------------|-------------------------------------|
| 1 | Faster dispute resolution times. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2 | Costs are more predictable and controllable. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3 | Trial decisions are final and cannot be appealed. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4 | Confidentiality of documents and information of the disputing parties is maintained. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5 | Prioritizes peace between the parties during the trial process. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6 | Trial procedures, locations, and schedules are flexible and can be arranged according to the parties' agreement. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7 | Arbitrators/judges who understand construction issues can be selected. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8 | Arbitrators/judges with integrity can be selected. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9 | Easily accessible to foreign business owners in Indonesia. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10 | International business owners in Indonesia consider them more objective. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| No | Statement | E | N |
|----|---|---|---|
| 11 | Parties have an active role in determining trial procedures. | ■ | □ |
| 12 | Parties are more satisfied with the trial process and outcomes. | ■ | □ |
| 13 | Multiple issues can be addressed in a single case, including across sectors and jurisdictions. | ■ | □ |
| 14 | Provides a fair opportunity for each party to present arguments and evidence. | ■ | □ |
| 15 | Trial decisions are more easily recognized and enforced internationally. | ■ | □ |
| 16 | Resolves disputes without the intervention of national laws, political pressure, or public opinion. | ■ | □ |
| 17 | Can resolve disputes broadly across the national borders of the parties. | ■ | □ |
| 18 | Reduce the caseload in district courts. | ■ | □ |
| 19 | Better safeguard business relationships after dispute resolution. | ■ | □ |
| 20 | Ensure the protection of the parties' rights through procedural agreements. | □ | ■ |

Source: Researcher's Processing

After calculating the CVR score, of the 20 indicators tested for content validation, two indicators failed to meet the CVR score:

1. Prioritizing peace between parties during the trial process.
2. Ensuring the protection of the parties' rights through procedural agreements.

These two indicators were subsequently excluded from the questionnaire.

4.1.4. Questionnaire Type 2.

The results obtained at this stage were Questionnaire Type 2, as shown in Table 4.3. The complete format of the questionnaire distributed to respondents in PDF format, and in Google Form format. These two formats were created to provide alternative convenience for respondents.

Table 4.3. Questionnaire Design Model Type 2 (Questionnaire for respondents)

| | |
|---|---|
| A | Closed-Ended Questions based on the validated Type 1 Questionnaire |
| B | Open-Ended Questions |
| 1 | In your opinion, what factors influence the effectiveness of arbitration in resolving construction disputes? |
| 2 | In your opinion, what are the obstacles faced by arbitration in resolving construction disputes in Indonesia? |

Source: Researcher's Processing

4.1.5. Questionnaire Reliability Test

The purpose of this stage was to test the reliability of the Type 2 questionnaire using closed-ended questions. The reliability test used a test and retest method. The Type 2 questionnaire with closed-ended questions was distributed to five respondents, and their answers were recorded. Within one week, the same questionnaire was distributed again and respondents were asked to answer again.

The results of the reliability test are shown in Table 4.4, which demonstrates the consistency of the responses of the five respondents, providing a coefficient of S, thus concluding that the questionnaire met the reliability requirements.

Table 4.4. Results of the Reliability Test

| Indicator | Round 1 Questionnaire (UR1) | | | | | Round 2 Questionnaire (UR2) | | | | | (UR1-UR2) ² | | | | |
|-----------|-----------------------------|-----|-----|-----|-----|-----------------------------|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|
| | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 |
| 1 | 1 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 2 | 1 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 0 | 0 |
| 5 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |

| Indicator | Round 1 Questionnaire (UR1) | | | | | Round 2 Questionnaire (UR2) | | | | | (UR1-UR2) ² | | | | |
|---|-----------------------------|-----|-----|-----|-----|-----------------------------|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|
| | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 | Rs1 | Rs2 | Rs3 | Rs4 | Rs5 |
| 6 | 1 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 7 | 1 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 8 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 9 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 10 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 11 | 1 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 12 | 2 | 3 | 2 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 1 | 0 | 0 | 0 | 0 |
| 13 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 14 | 1 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 15 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 1 |
| 16 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 17 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 18 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 0 | 0 |
| Sum | | | | | | | | | | | 1 | 0 | 2 | 0 | 1 |
| Rho = 1 - (6*sum d ²)/(n*(n ² -1)) = 0,8 | | | | | | | | | | | | | | | |

Source: Researcher's Processing

4.1.6. Data collection.

This stage involves collecting data from respondents' responses to the distributed questionnaire. Data collection was conducted by distributing the questionnaire to respondents online via Google Form. A PDF file was also provided to allow respondents to choose which method they found easiest to answer.

4.1.7. Data Processing

The results obtained from this stage are as described below.

4.1.7.1. Closed-Ended Question Data Processing.

Respondents' answers to the closed-end questions regarding each effectiveness indicator, comparing whether the courts are better (scale 1); courts and arbitration are equally good (scale 2); and arbitration is better (scale 3), were processed as explained below.

In general, the average score for each indicator ranged from 2.15 to 2.90, indicating that respondents' perceptions of arbitration effectiveness were moderate to positive, although not yet at the "very effective" level. The highest ranking was shown by indicator number 10, "More objective according to international business actors in Indonesia." Meanwhile, at the lowest mean, there are 2 indicators which have a mean of 2.15, namely indicator number 11 and indicator number 17, namely respectively: The parties are more satisfied with the process and results of the trial and reduce the caseload in the district court.

All indicators have a mean value above 2. There are 11 indicators out of a total of 18 indicators, or 61% of the indicators have a mean value of more than 2.50 and 7 indicators or 39% have a mean value between 2.15 to 2.45.

Tabel 4.5. The mean value and deviation standard of each indicator

| Rank | Mean Value | Mean Value | Dev. Standard |
|------|---|------------|---------------|
| 1 | More objective according to international business actors in Indonesia. | 2,900 | 0,31 |

| Rank | Mean Value | Mean Value | Dev. Standard |
|------|---|------------|---------------|
| 2 | Flexible trial procedures, venues, and schedules can be arranged according to the parties' agreement. | 2,850 | 0,37 |
| 3 | Can choose arbitrators/judges who understand construction issues. | 2,850 | 0,37 |
| 4 | Trial decisions are more easily recognized and enforced across countries. . | 2,850 | 0,37 |
| 5 | Resolves disputes without national legal intervention, political pressure, or public opinion. . | 2,850 | 0,37 |
| 6 | Can resolve disputes on a broad scale beyond the national borders of the parties. | 2,750 | 0,55 |
| 7 | Easily accessible to foreign business actors in Indonesia. | 2,750 | 0,44 |
| 8 | Can choose arbitrators/judges with integrity. | 2,750 | 0,44 |
| 9 | Parties have an active role in determining trial procedures. | 2,700 | 0,47 |
| 10 | Better maintains business relationships after dispute resolution. | 2,700 | 0,47 |
| 11 | Faster dispute resolution times. | 2,550 | 0,76 |
| 12 | Can handle multiple issues in a single case, including across sectors and jurisdictions. | 2,450 | 0,51 |
| 13 | Trial decisions are final and cannot be appealed. | 2,400 | 0,75 |
| 14 | Confidentiality of documents and information of the disputing parties is maintained. | 2,400 | 0,75 |
| 15 | Costs are more predictable and controllable. | 2,350 | 0,88 |
| 16 | Provides a fair opportunity for each party to present arguments and evidence. | 2,300 | 0,47 |
| 17 | Parties are more satisfied with the trial process and outcome. | 2,150 | 0,67 |
| 18 | Reduces the caseload in district courts. . | 2,150 | 0,75 |

Source: Researcher's Processing

Several indicators with the highest average scores include:

- 1. More objective according to international business actors in Indonesia (mean: 2.90; standard deviation: 0.31).**

Data shows that respondents strongly believe in the objectivity of arbitration in examining and deciding construction disputes, and this is recognized as a key advantage, with relatively consistent perceptions across respondents (indicated by a low standard deviation). This indicates that applicants desire their cases to be decided objectively without any bias.

- 2. Flexible hearing procedures, venues, and schedules, which can be arranged according to the agreement of the parties (mean: 2.85; standard deviation: 0.37).**

This indicates that procedural flexibility in arbitration is recognized by respondents as a key advantage, with relatively consistent perceptions across respondents (indicated by a low standard deviation).

- 3. Ability to choose arbitrators/judges who understand construction issues (mean: 2.85; standard deviation: 0.37).**

It certainly creates a sense of satisfaction and trust when an arbitration applicant has the opportunity to choose an arbitrator who will examine and decide their dispute. From the list of available arbitrators, the applicant will choose one who understands construction issues. This demonstrates that the applicant wants the issue resolved based on the facts of the project, which requires an understanding of

construction. For example, in the case of an alleged construction failure, the arbitrator can understand whether a basement leak constitutes a construction failure or not..

4. **Trial decisions are more easily recognized and enforced across countries (mean: 2.85; standard deviation: 0.37).**

Respondents strongly believe that the trial process they undergo will be binding even if the disputed object is outside the country where the arbitration hearing takes place. In Indonesia, the Central Jakarta District Court is the district court authorized to enforce foreign arbitration awards, such as the Singapore arbitration. Similarly, Indonesian arbitration awards are enforceable in other countries because the United Nations has regulations governing this through UNCITRAL.

5. **Resolving disputes without interference from state law, political pressure, or public opinion (mean: 2.85; standard deviation: 0.37).**

Due to the closed nature of arbitration, respondents strongly believe that the proceedings are not exposed to the media, so only the parties involved are aware of the proceedings. This minimizes interference from other parties.

6. **Can resolve disputes across a broad scope beyond the national borders of the parties (mean: 2.75; standard deviation: 0.55).**

Respondents believe that arbitration can resolve disputes involving entities with different legal statuses, such as a dispute between a national private company and a Korean company. This potential is inevitable because Indonesia is open to foreign investment, and these foreign investors will bring business partners from their respective countries..

7. **Easily accessible to foreign business actors in Indonesia (mean: 2.75; standard deviation: 0.44).**

For foreign business actors, arbitration procedures give the impression of being easily accessible because they are a non-state institution. The numerous cases reported in the media about problems in district courts will undoubtedly make foreign business actors wary of dealing with district courts.

8. **Can choose an arbitrator/judge with integrity (mean: 2.75; standard deviation: 0.44).**

Respondents gain a sense of trust when arbitration applicants have the opportunity to choose the arbitrator who will examine and decide their dispute. From the list of available arbitrators, applicants will choose one with integrity. This indicates that applicants want their problems to be decided based on the facts and without any fraud.

9. **The parties have an active role in determining the trial procedure (mean: 2.70; standard deviation: 0.47).**

Respondents believe that the applicant can play an active role in determining trial procedures. These include provisions for pre-trial settlement efforts, court attire, and the language used in court.

10. **Maintaining business relationships after dispute resolution (mean: 2.70; standard deviation: 0.47).**

Respondents believe that business relationships after dispute resolution are maintained due to the informal nature of arbitration proceedings and the significant effort involved in conciliation.

11. **Faster dispute resolution time (mean: 2.55; standard deviation: 0.76).**

Respondents tended to agree that arbitration allows for faster dispute resolution than litigation.

Although there was variation in opinion among respondents, and lower levels of confidence, they still scored above 2.5, with a mean score approaching 2.55.

Meanwhile, indicators with a mean score lower than 2.5 were:

1. **Ability to handle multiple issues in a single case, including across sectors and jurisdictions (mean: 2.45; standard deviation: 0.51).**

This indicates that some respondents believe that including many issues in one case will reduce the effectiveness of arbitration because it makes the case complex and complicated, even though this is permitted by the arbitration rules.

2. **The decision of the hearing is final and cannot be appealed (mean: 2.40; standard deviation: 0.75).**

This indicates that some respondents consider the finality of the arbitration decision to be an advantage, although the level of agreement is moderate.

3. **Confidentiality of documents and information of the disputing parties is maintained (mean: 2.40; standard deviation: 0.75).**

This indicates that the advantages of arbitration confidentiality are not yet fully perceived by respondents.

4. **Costs are more predictable and controllable (mean: 2.35; standard deviation: 0.88).**

This indicates that some respondents still doubt the cost-effectiveness of arbitration, with perceptions varying considerably across respondents.

5. Providing a fair opportunity for each party to present arguments and evidence (mean: 2.30; standard deviation: 0.47).

This indicates that some respondents still doubt the right to provide a fair opportunity to present arguments and evidence, with perceptions not significantly varying across respondents.

6. The parties were more satisfied with the trial process and outcome (mean: 2.15; standard deviation: 0.67).

This indicates that some respondents still doubted their satisfaction with the trial process and outcome, with perceptions varying considerably across respondents.

7. Reducing the caseload in district courts (mean: 2.15; standard deviation: 0.75).

This indicates that some respondents still doubted whether arbitration would reduce the caseload in district courts, with perceptions varying considerably across respondents. This may be due to the perception that the number of construction disputes in arbitration is insignificant compared to the number of cases before the courts.

4.1.7.2. Data Processing for the First Open-Ended Question.

Respondents' answers to the first open-ended question, which factors influence the effectiveness of arbitration in resolving construction disputes, are explained in Table 4.6.

Table 4.6. Factors Influencing the Effectiveness of Arbitration in Resolving Construction Disputes

| Rank | Factors Influencing | Score (%) |
|------|---|-----------|
| 1 | The arbitrator who hears the case is selected who is an expert in his field, has experience and is capable of managing the trial | 13,0% |
| 2 | The clarity and details of the construction contract do not have any differences in interpretation, regarding the scope of work, value of work, method of implementation, payment and dispute resolution clauses. | 9,3% |
| 3 | The parties are able to interpret the contract appropriately as intended. | 9,3% |
| 4 | The parties acted in good faith from the start so that no party attempted to slow down or disrupt the trial. | 9,3% |
| 5 | The Parties have preparation and accuracy in providing evidence in the trial forum | 9,3% |
| 6 | The parties are committed to resolving disputes in accordance with what is stipulated in the Contract Agreement. | 5,6% |
| 7 | The value of the lawsuit is relatively large (minimum IDR 5 billion) | 5,6% |
| 8 | The decision of the arbitration court is final and binding. | 5,6% |
| 9 | The parties understand the substance of the dispute well | 5,6% |
| 10 | The parties make claims or defenses in accordance with the appropriate contract articles, documents and evidence. | 5,6% |
| 11 | The trial process takes place quickly, without having to wait in line for the courtroom and the panel of arbitrators. | 5,6% |
| 12 | The Parties provide legal experts who understand construction contracts and engineers who understand the law. | 5,6% |
| 13 | The agreement document states that dispute resolution will be carried out through arbitration. | 3,7% |
| 14 | The use of technology in the arbitration process such as E-Filing and online hearings | 3,7% |

| | | |
|----|---------------------------------|------|
| 15 | Resolving cross-border disputes | 3,7% |
|----|---------------------------------|------|

Source: Researcher Processing

The table 4.6. above explains the proportion of each factor considered to influence the effectiveness of arbitration in resolving construction disputes, based on respondents' opinions.

The most dominant factor was the selection of an arbitrator who is skilled, experienced, and capable of managing the hearing, with the highest frequency at 7 respondents, or approximately 13% of the total. This indicates that the arbitrator's competence and integrity are key elements that significantly determine the success of the arbitration process.

Furthermore, four factors received equal frequency, with 5 respondents, or approximately 9,3% each. The complete list of factors is as follows:

1. The arbitrator is skilled, experienced, and capable of managing the hearing.
2. Clarity and detail of the construction contract.
3. The parties' ability to interpret the contract accurately.
4. The parties' good faith in not obstructing the hearing process.
5. Preparation and accuracy in presenting evidence at trial.

These four factors indicate that, in addition to the role of the arbitrator, the quality of the contract documents, as well as the parties' attitudes and preparedness, are important aspects that contribute to the effectiveness of dispute resolution through arbitration.

Other factors that also had a significant influence, albeit with a smaller frequency (3 respondents each, or approximately 5,6%), included:

1. Commitment to resolving disputes in accordance with the contract.
2. Relatively large claim amounts.
3. Final and binding arbitration decisions.
4. Understanding the substance of the dispute by the parties.
5. Claims and defenses based on contractual provisions and strong evidence.
6. Expeditious trial proceedings.
7. Availability of legal experts and legal engineers at trial.

In addition, three factors were considered to have a smaller influence (2 respondents each, or approximately 3,7%), namely:

1. Mention of arbitration in the agreement document.
2. Use of technology in the arbitration process, such as e-filing and online hearings.
3. The arbitration's ability to handle cross-border disputes.

These results indicate that while all factors contribute to arbitration effectiveness, several aspects, such as the quality of the arbitrator, clarity of the contract, and the good faith of the parties, were the key factors most prioritized by respondents.

Overall, this pie chart illustrates that arbitration effectiveness depends not only on formal procedures, but also on the preparedness and integrity of the parties, as well as the quality of the documents that form the basis of the proceedings.

4.1.7.3. Data Processing for the Second Open-Ended Question.

Respondents' answers to the second open-ended question are presented in Table 4.7, which asks about challenges and limitations in arbitration practice for construction disputes in Indonesia.

Table 4.7. Challenges and Limitations in Arbitration Practice

| Rank | Obstacles | Score (%) |
|------|---|-----------|
| 1 | The costs are relatively high | 17,1% |
| 2 | The completion time is relatively long | 12,2% |
| 3 | Arbitration fees must be paid upfront | 7,3% |
| 4 | The project issues are very complex and intricate | 7,3% |
| 5 | The construction contract is highly technical. | 7,3% |

| Rank | Obstacles | Score (%) |
|------|--|-----------|
| 6 | The parties lack complete trust in arbitration. | 7,3% |
| 7 | The completion time is relatively short, requiring extensive work to complete. | 4,9% |
| 8 | The parties' understanding of the material is lacking in detail. | 4,9% |
| 9 | The number of construction documents is very large and does not align with the depth of the arbitrator's knowledge. | 4,9% |
| 10 | Several types of losses have no equivalent in Indonesian arbitration law or civil law, such as consequential damages, liquidated damages, nominal damages, and punitive damages. | 4,9% |
| 11 | Some parties do not understand the clauses or articles of the agreement they have signed. | 4,9% |
| 12 | Some parties do not understand the regulations or laws applicable to the agreement. | 4,9% |
| 13 | There is a conflict of interest among the parties. | 4,9% |
| 14 | The administrative completeness of the project implementation is inadequate to be used as evidence in court. | 4,9% |
| 15 | The arbitrator does not thoroughly review all documents. | 2,4% |

Source: Researcher Processing

The pie table 4.7 above explains the proportion of obstacles encountered in the arbitration process for resolving construction disputes in Indonesia, based on respondents' perceptions and experiences. The most dominant obstacle is the relatively high cost of arbitration, which received the highest frequency at 7 respondents, or approximately 17,1% of the total. This confirms that despite arbitration's many advantages, cost remains a major concern and can be a barrier to choosing arbitration.

The next obstacle is the relatively long settlement time, mentioned by 5 respondents, or approximately 12,2%. These results indicate that in practice, although arbitration is claimed to be faster than litigation, some respondents still feel that the settlement time is still a barrier, possibly due to the administrative burden, case complexity, or the arbitrator's busy schedule.

The complete list of respondents' responses regarding the obstacles faced by arbitration is as follows. There are two categories of answers with high frequency:

1. Relatively high costs, received a frequency of 7 opinions (17%).
2. Relatively long settlement time, received a frequency of 5 opinions (12%).

Respondents' responses regarding the obstacles faced by arbitration fell into four categories with moderate frequency:

1. Arbitration fees must be paid upfront, with a frequency of 3 opinions (7,3%).
2. Project issues are very complex and complicated, with a frequency of 3 opinions (7.3%).
3. Construction contracts are very complex due to their highly technical nature, with a frequency of 3 opinions (7,3%).
4. Parties lack complete trust in arbitration, with a frequency of 3 opinions (7,3%).

Respondents' responses regarding the obstacles faced by arbitration included nine categories with low frequency:

1. The completion time target is relatively short, requiring hard work to achieve it, with a frequency of 2 opinions (4,9%).
2. The parties' understanding of the material is insufficiently detailed, with a frequency of 2 opinions (4,9%).
3. The large number of construction documents does not align with the depth of the arbitrator's knowledge, with a frequency of 2 opinions (4,9%).

4. Several types of losses have no equivalents in Indonesian arbitration law or civil law, such as consequential damages, liquidated damages, nominal damages, and punitive damages, with a frequency of 2 opinions (4,9%).
5. Some parties do not understand the clauses or provisions of the agreement they have signed, with a frequency of 2 opinions (4,9%).
6. Some parties do not understand the regulations or laws applicable to the agreement, with a frequency of 2 opinions (4,9%).
7. Conflict of interest among the parties, with a frequency of 2 opinions (4,9%).
8. The administrative completeness of the project implementation was insufficient to serve as evidence in court, receiving a frequency of 2 opinions (4,9%).
9. The arbitrator did not read all the documents in detail, receiving a frequency of 1 opinion (2,4%).

V. CONCLUSION

This study has examined the effectiveness of arbitration in resolving construction disputes in Indonesia in comparison to litigation, with a particular focus on key performance indicators, influencing factors, and practical obstacles. The findings yield the following conclusions:

1. Effectiveness of Arbitration Compared to Litigation

Based on quantitative analysis of validated indicators, arbitration is perceived to be more effective than litigation in resolving construction disputes in Indonesia. All evaluated indicators achieved a mean score above 2.0 on a 1–3 scale, reflecting overall positive respondent perceptions. The most highly rated aspects include:

- a. Perceived objectivity by international business actors (mean: 2.90),
- b. Flexibility in procedures, venues, and hearing schedules (mean: 2.85), and
- c. Cross-border recognition and enforceability of arbitral decisions (mean: 2.85).
- d. These results underscore the advantages of arbitration in terms of procedural efficiency, neutrality, and international applicability—key considerations in the construction industry, especially for cross-border projects.

2. Determinants of Arbitration Effectiveness

Qualitative analysis of expert responses revealed five dominant factors influencing the perceived effectiveness of arbitration:

- a. The selection of competent and experienced arbitrators (13%),
- b. The clarity and specificity of contract documents (9.3%),
- c. The ability of parties to accurately interpret contractual terms (9.3%),
- d. The good faith of the parties in not obstructing proceedings (9.3%), and
- e. The quality and preparedness of evidentiary presentation (9.3%).
- f. These findings highlight the interplay between procedural design, document quality, and stakeholder conduct in determining arbitration outcomes.

3. Challenges and Limitations in Arbitration Practice

Despite its perceived benefits, arbitration also faces significant constraints that may affect its overall effectiveness in the Indonesian context. Key obstacles identified include:

- a. High arbitration costs (17.1%),
- b. Relatively long resolution timelines (12.2%),
- c. The need for upfront payment of fees (7.3%),
- d. Complexity of project-related issues (7.3%),
- e. Highly technical nature of construction contracts (7.3%), and
- f. Incomplete trust in the arbitration process (7.3%).
- g. These findings suggest that although arbitration is generally viewed favorably, financial and technical complexities remain persistent concerns among construction stakeholders.

Implications and Future Directions

The study reinforces the strategic relevance of arbitration in Indonesia's construction sector and offers empirical support for its continued development as an alternative to litigation. However, to optimize its adoption and performance, institutional reforms may be necessary—such as improving arbitrator accreditation, simplifying procedures for small and medium-scale claims, and increasing stakeholder education on arbitration clauses.

Future research is recommended to explore the long-term outcomes of arbitration decisions, analyze sector-specific arbitration practices (e.g., public vs. private projects), and conduct comparative studies across Southeast Asian jurisdictions to strengthen the regional discourse on construction dispute resolution.

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