

Review of Alternative Dispute Resolution Methods in Construction Projects

Amila N.K.K. Gamage^{1*}, Suresh Kumar²

¹PhD Candidate, Project Management, LIGS University, Hawaii

²Lecturer, Project Management, LIGS University, Hawaii

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*Corresponding author: Amila N.K.K. Gamage

PhD Candidate, Project Management, LIGS University, Hawaii

Abstract

Disputes are common in construction projects due to their dynamic and complex nature. If project leaders ignore finding resolution quickly, these disputes can impact negatively on project performance. Therefore, effective dispute resolution is important for successful project performance and closure as well. This paper comprehensively explores the use of Alternative Dispute Resolution (ADR) techniques for construction disputes focusing on negotiation, mediation, arbitration, expert determination, and adjudication. The study investigates the effectiveness and applications of each ADR method, emphasizing the advantages of ADR, including time and cost savings, confidentiality, and relationship preservation. This paper provides a better understanding of these mechanisms for anyone involved in construction projects. Furthermore, the paper offers a strategic approach to choosing the most suitable ADR method, considering factors such as financial constraints, organizational dynamics, legal requirements, and the nature of the dispute.

Keywords: ADR, Adjudication, Alternative Dispute Resolution, Arbitration, Construction Disputes, Expert Determination.

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1. INTRODUCTION

Construction projects frequently encounter disputes that can disrupt timelines and strain relationships. Once this occurs, disputes require more money, time, and resources of the project team to find a resolution. Construction disputes can emerge due to different causes, ranging from design issues and contractual breaches to delays and unforeseen circumstances. These disputes can lead to financial losses, project delays, and strained relationships among stakeholders. Identifying the root cause is essential for achieving an effective resolution.

Contractual clarity is a cornerstone for dispute prevention. Detailed and well-drafted contracts specifying project scope, timelines, and responsibilities help mitigate conflicts. Lee *et al.*, (2021) identified contract-related issues as a primary cause of construction disputes. As per their research contractual issues significantly contribute to disputes among parties (Lee *et*

al., 2021). However, if disputes arise, it requires resolution. The traditional litigation route is often time-consuming and costly, making Alternative Dispute Resolution (ADR) an increasingly preferred approach.

When disputes emerge, alternative dispute resolution (ADR) mechanisms, such as mediation and arbitration, offer efficient and cost-effective alternatives to litigation. Mediation fosters open communication, allowing parties to collaboratively resolve with the guidance of a neutral third party. Arbitration provides a more formal setting, with decisions made by an arbitrator or panel, avoiding the complexities of court proceedings. Negotiation, Expert determination, and adjudication are other popular ADR mechanisms in the construction industry.

The benefits of ADR in construction disputes are manifold. Time and cost savings are paramount, as ADR processes are generally quicker and less expensive than traditional litigation. Confidentiality is another

advantage, allowing parties to resolve disputes without the public scrutiny associated with court proceedings.

On the other hand, a primary contributor to project failures is the adversarial relationship among project parties. Disputes can result in damaged relationships which can negatively impact project performance (El-Sayegh *et al.*, 2020). Therefore, it is important to find mechanisms to address the disputes when they emerge.

Considering these facts, this paper focuses on exploring current ADR techniques that can help in finding fast resolutions for construction project disputes. Further, by identifying the advantages and disadvantages of each ADR mechanism, project leaders can choose the most relevant ADR mechanism for their disputes with minimum negative impact on project performance. Therefore, this study aims to explore the current ADR mechanisms that can help in finding a fast resolution that can minimize cost overrun, time overrun, and quality issues that can impact negatively successful project completion.

1.1 Purpose

The purpose of this scientific paper is to comprehensively explore and analyze the efficacy, applications, and implications of Alternative Dispute Resolution (ADR) mechanisms. By investigating the various forms of ADR, such as mediation and arbitration, the paper aims to provide a better understanding of how these mechanisms contribute to the construction project dispute resolution. Additionally, the study will assess the advantages and limitations of ADR compared to

traditional litigation, shedding light on its potential role in fostering efficient and cost-effective dispute resolution.

Below mentioned are the objectives outlined for this study.

- To identify the Alternative Dispute Resolution mechanisms in construction projects.
- To identify the pros and cons of each ADR mechanism.
- To identify the factors that affect in choosing the best ADR mechanism for construction disputes.

2.0 Construction Disputes

Due to the dynamic and complex nature of construction projects, disputes are inevitable. Most construction projects end up with disputes that need more time, money, and resources to resolve. The nature of construction projects where there are different stakeholders involved creates fertile grounds for disputes. These conflicts may arise from design discrepancies, contractual ambiguities, or external factors such as environmental changes. Changes to the original scope of work and delayed payments are other causes of disputes that can adversely affect the project progress (Adham, 2022). According to Cheung & Yiu (2006), there are three primary elements that contribute to conflicts. Those are Contract Provisions, Triggering Events, and Conflict itself (Cheung & Yiu 2006). These three elements are called as dispute triangle for construction projects and illustrated in Figure 1.

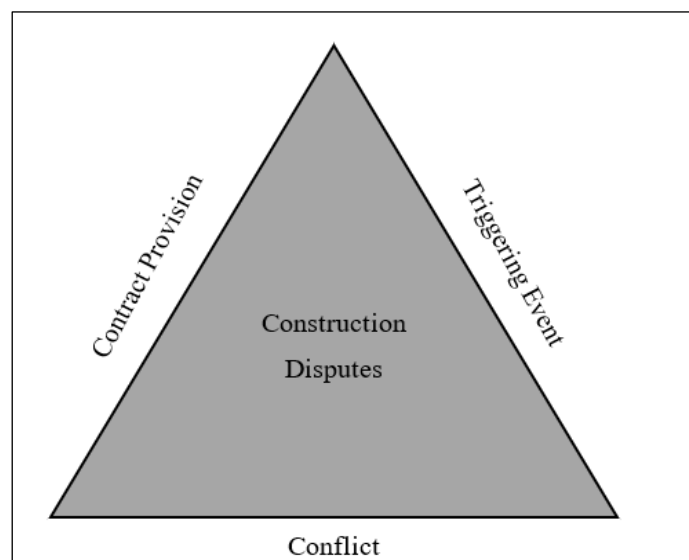


Figure 1: The Dispute Triangle for Construction Projects

Understanding the root causes is vital for project leaders to effectively manage disputes by taking preventative measures and resolutions. Financial implications, project delays, and strained relationships among stakeholders can negatively impact project

progress. Therefore, Alternative Dispute Resolution (ADR) mechanisms emerge as a reliable solution in addressing construction disputes. Mediation and arbitration, among others, offer streamlined alternatives to traditional litigation. The efficacy of these

mechanisms, their adaptability to the construction environment, and their role in preserving relationships create ADR as a vital mechanism for construction dispute resolution.

3.0 Dispute Resolution Strategies for Construction Projects

When there are disputes occur in construction projects, there are different ways to find resolutions.

These resolution strategies can be broadly classified into two categories, that are resolution by agreement and resolution through a binding decision by a third party (Uher, 2008). Negotiation and mediation fall under the agreement-based methods, fostering resolution through mutual understanding. On the other hand, the binding decision methods involve litigation, expert determination, and arbitration (Uher, 2008). Figure 2 illustrates these dispute resolution methods.

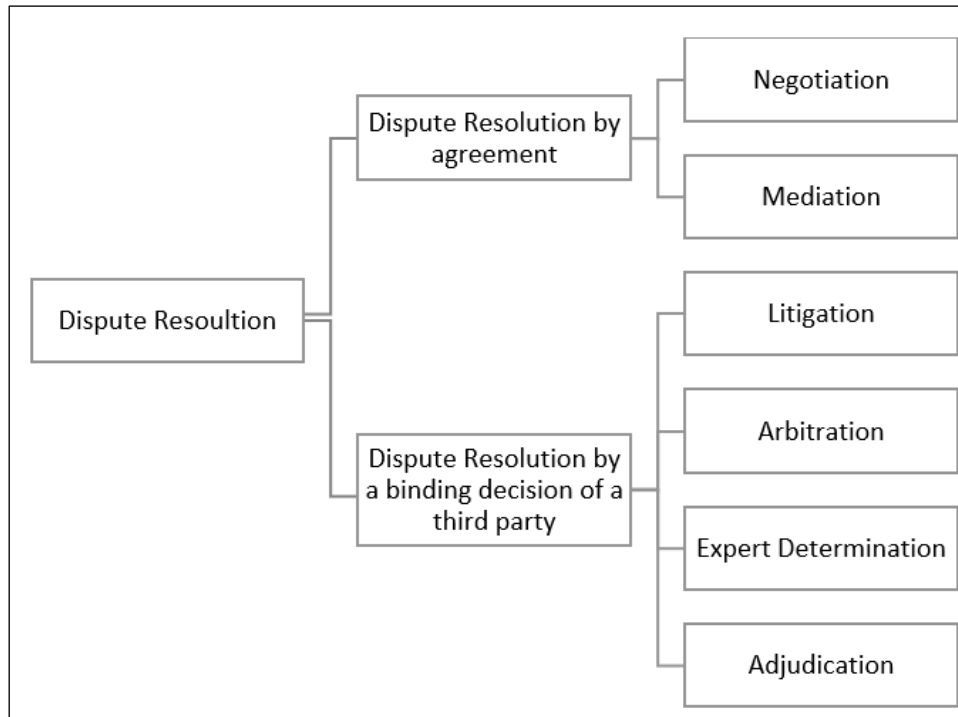


Figure 2: Dispute Resolution Methods

Litigation, a formal legal process involving the presentation of a case before a court, has deep roots in legal traditions worldwide. Originating as a means to ensure justice and uphold the rule of law, litigation has evolved into a complex system with defined procedures, rules of evidence, and legal precedents.

Therefore, although litigation stands as a mechanism where parties seek a binding resolution determined by a third party, it is acknowledged as the final step in finding a resolution in settling disputes between involved parties (Singh & Song, 2018). This is primarily because of the considerable investments of time and finances that it demands. Parties in a litigation case must allocate more resources to their case to keep their positions, making it a less preferable option for dispute resolution. Therefore, this paper is focused on exploring the details of ADR approaches to find resolutions for disputes once they arise.

4.0 Alternative Dispute Resolution in Construction Projects

Apart from litigation, there are strategies to resolve disputes that are called Alternative Dispute Resolution (ADR) techniques. There are different ADR mechanisms available that are also suitable for construction dispute resolution. According to Safinia (2014), ADR mechanisms are methods that are used to find a resolution for disputes without using traditional dispute resolution strategies. Further, ADR is considered a cost-effective and time-effective way to resolve disputes (Safinia, 2014). The most commonly used ADR techniques for construction projects include negotiation, mediation, arbitration, expert determination, and adjudication. The following is a brief description of each ADR method. Further, Figure 3 illustrates these alternative dispute resolution methods.

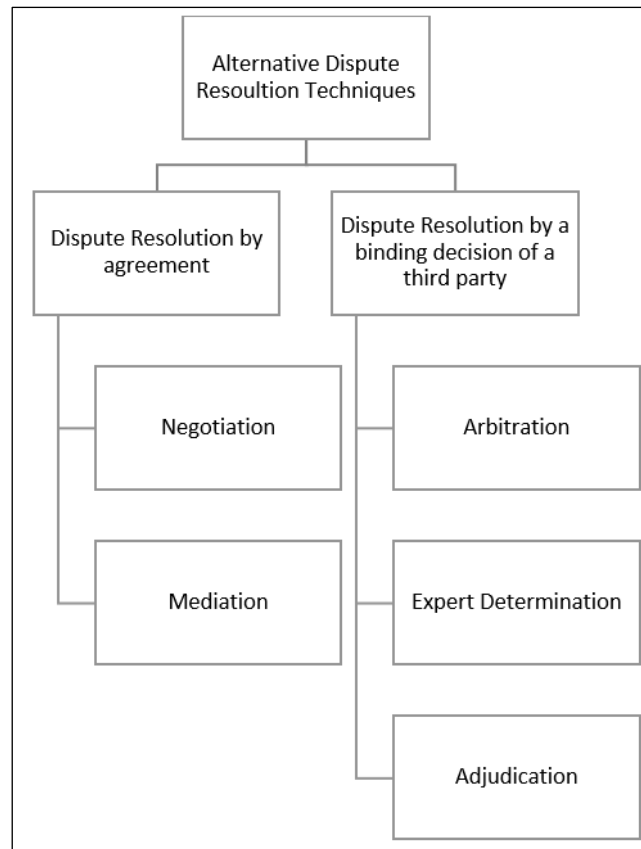


Figure 3: Alternative Dispute Resolution Methods

4.1 Negotiation

Negotiation, a popular Alternative Dispute Resolution (ADR) method in construction projects, emphasizes collaborative problem-solving through open discussions between conflicting parties. Its adaptability, cost-effectiveness, and relationship preservation make it a strategic tool for construction dispute resolution.

Despite its prevalence and advantages, negotiation has drawbacks too. Its voluntary nature allows any party to withdraw without resolution, and agreements are non-binding. This allows flexibility for the parties to explore other ADR methods or litigation even after spending time on negotiation. According to previous studies, over 70% of disputes find resolution through negotiation (Singh & Song, 2018).

The voluntary and non-binding nature of negotiation as an ADR technique necessitates careful consideration and strategic planning for the parties who use negotiation as a means to resolve disputes. It requires balancing the advantages of collaboration with the potential risks associated with this widely employed ADR technique.

4.2 Mediation

Mediation is another effective Alternative Dispute Resolution (ADR) method used to solve construction disputes. Mediation sessions are facilitated by a neutral third-party mediator who guides disputant

parties toward resolution. Typically, mediators request disputing parties to sign a third-party agreement, outlining mediation terms, fees, and a clause releasing the mediator from liability (Uher, 2008).

However, mediation is a voluntary process, requiring the mutual consent of both parties to adopt it as their chosen dispute resolution strategy (Anumudu & Uchendu, 2023). Additionally, the solutions generated through mediation are nonbinding. Therefore, once agreed to a resolution, the parties to the dispute need to sign an agreement indicating the terms they agreed as the resolution for the disputant issue.

Mediation encourages parties to actively participate in crafting their resolution. Additionally, mediation's flexible nature allows for better solutions that are agreeable to all the parties. Time and cost efficiency are advantages of mediation compared to traditional litigation. Moreover, the confidentiality of mediation allows parties to maintain privacy and preserve relationships, contributing to the on-going success of construction projects.

4.3 Arbitration

Arbitration is another ADR technique that employs a neutral third party to listen to the case presented by the disputing parties. The arbitration panel examines the evidence and delivers a decision that is called an Arbitration Award. The typical arbitration

procedure includes initiation, preparation, prehearing conferences, the actual hearing, the decision-making phase, and the issuance of an award. Arbitrators carry out functions that resemble those of a judge but fall under the category of quasi-judicial duties that are guided by established ethical norms.

The disputant parties have the party autonomy to either select an arbitrator or a panel of arbitrators for their dispute resolution. Alternatively, they may opt to enlist the assistance of arbitration governing institutions, empowering these entities to designate an arbitrator on their behalf (Alaloul *et al.*, 2019). Arbitration hearings are confidential and that helps disputant parties to preserve privacy which is also a critical factor in maintaining professional relationships (Alaloul *et al.*, 2019). Further, arbitration is also cost and time-effective compared to litigation which makes it a popular choice for construction dispute resolution. However, according to Saeb *et al.*, (2021), some recent cases highlight that the arbitration process can be costly and time-consuming too same as litigation.

4.4 Expert Determination

In expert determination, contractual parties mutually decide to submit their dispute to a third party, seeking their expert opinion on the matter in contention. Subsequently, upon receiving the expert's opinion, the parties have the option to agree and be legally bound by that determination. Notably, in contrast to litigation, the expert determination process offers flexibility, enabling parties to autonomously select a third party to adjudicate their dispute (Uher, 2008).

Expert Determination in dispute resolution offers distinct advantages. This mechanism leverages the specialized knowledge of experts to offer detailed insights into technical or industry-specific issues (Saeb *et al.*, 2021). The speedy resolution, confidentiality, and flexibility to choose experts according to disputant parties are some of the benefits of this ADR technique.

However, Expert Determination carries some disadvantages too. The process lacks certain procedural formalities. While expert determination is more cost-effective, the fees for expert services can still be substantial. Usually, an expert judgment decision is binding. However, Enforcement of decisions may also pose challenges if parties do not willingly comply (Saeb *et al.*, 2021).

4.5 Adjudication

Adjudication is another ADR technique where there is a neutral adjudicator who studies the case and makes decisions on contractual disputes between parties within a pre-determined timeframe (Saeb *et al.*, 2021). Further, the adjudication process is flexible where the parties have the right to terminate the process by a written agreement (Ahmi *et al.*, 2023). The adjudicator's

decision is binding as stipulated in the contract (Ahmad *et al.*, 2019).

Should either party express dissatisfaction with the adjudication decision, the option to set it aside lies with the High Court. However, such recourse is limited to specific circumstances, including instances of fraud or bribery, denial of natural justice, lack of independent action by the adjudicator, or when the adjudicator exceeds their jurisdiction (Ahmad *et al.*, 2019).

5.0 Choosing the Most Suitable ADR Methods for Construction Disputes

Disputes are inevitable in construction projects. Those can arise at any time during the project implementation stage (Hardjomuljadi, 2020). Once there is a dispute occurs, it is important to choose the most appropriate ADR technique to find a resolution. Several factors affect the decision to choose an ADR method. According to the previous studies done by the author, the factors that affect in choosing an ADR strategy are categorized into three main categories. These are namely financial factors, organizational factors, and legal factors (Gamage, 2023).

Further, through the same study, the author suggests identifying the business environment, strengths, and weaknesses of the organization compared to the other disputant party by using available strategic management tools such as SWOT analysis and PESTLE analysis (Gamage, 2023). In this way, organizations can decide on the most appropriate ADR strategy that suits their organization and the disputant matter.

According to Aritonang & Simanjuntak (2020), seven factors affect in choosing an ADR technique for construction disputes. These factors are cost incurred, time spent, certainty of law, preservation of the relationship between the parties, neutrality, confidentiality, and enforceability. Further, Gaum & Laubscher (2019) highlight the importance of confidentiality in the dispute resolution process. Therefore, their studies suggest negotiation as an ADR technique that also maintains the confidentiality of the parties.

Therefore, project leaders should choose the most appropriate strategy for their dispute resolution. It is wise to start by analyzing the nature of the dispute, considering its complexity and whether it leans more toward legal or technical aspects. Evaluate the dispute that occurred and the urgency of finding a resolution. It is also important to consider the fact that it is important to maintain the relationship with other parties. According to Saeb *et al.*, (2021), factors in budget constraints are important as well. Therefore recognize the cost implications of different ADR methods.

Consider the enforceability requirements, weighing the need for legally binding decisions. Further,

project leaders should assess the need for confidentiality and expertise, especially in disputes requiring technical knowledge (Asad *et al.*, 2022). Party autonomy is another important factor to consider before choosing an ADR strategy. Acknowledge the level of party autonomy desired and the potential long-term impact on legal precedents (Gamage, 2023). It is important to examine existing contractual agreements to find out about any specified ADR methods. Organizations can also seek professional advice from legal experts well-versed in construction law to navigate the decision-making process effectively. Ultimately, a combination of these considerations will guide the selection of ADR methods tailored to the specific dynamics and objectives of construction disputes.

5.1 Stair-Step Model of Dispute Resolution

Although there are numerous factors that impact the selection of an ADR strategy, project leaders should be wise on choosing the most appropriate strategy to resolve their project disputes. Nevertheless, the chosen ADR approach must effectively reduce litigation expenses and mitigate potential project cost overruns (Kirimi & Wanjohi, 2019). O'Reilly and Mawdesley's (1994) Stair-Step Model of Dispute Resolution shows various ADR approaches and their correlation with hostility and costs. Figure 4 illustrates the Stair-Step Model of Dispute Resolution introduced by O'Reilly and Mawdesley's (1994).

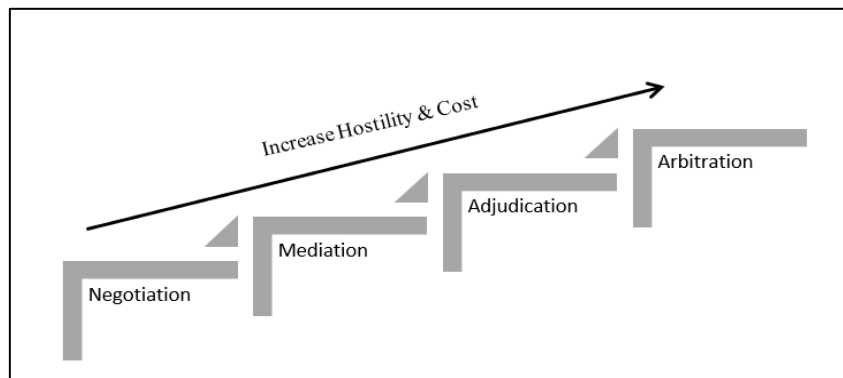


Figure 4: Stair-Step Model of Dispute Resolution

As outlined in the Stair-Step Model of Dispute Resolution, opting for negotiation as the chosen ADR approach results in low costs and minimal hostility among parties. Conversely, if adjudication or arbitration is to be selected as the ADR strategy, it is important to note that both costs and hostility tend to escalate compared to other ADR strategies.

6.0 METHODOLOGY

This study was done using existing literature published between 2019 to 2023 in peer reviewed scientific journals. This is to identify the various ADR mechanisms that are available for construction dispute resolution. Further, papers used for this review were selected from English journals only. If the journals are not accessible or if there is a fee to pay to gain access, those were not considered for this study. Figure 5 shows the steps followed for this review process.

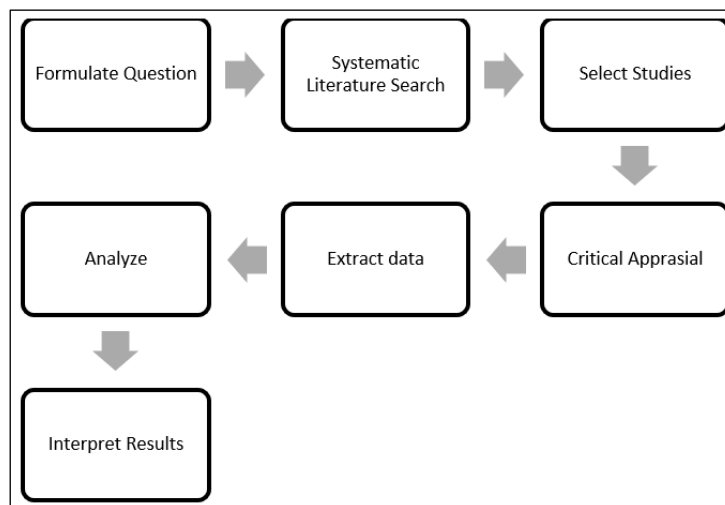


Figure 5: Main Steps of Literature Review Process

7.0 Article Selection and Screening Process

The keywords used for this search are ‘ADR in construction’ and ‘Alternative Dispute Resolution in Construction’. ProQuest data base was used to select the

suitable papers that are written in related topics. Figure 6 shows the article selection process together with the steps involved in article screening process.

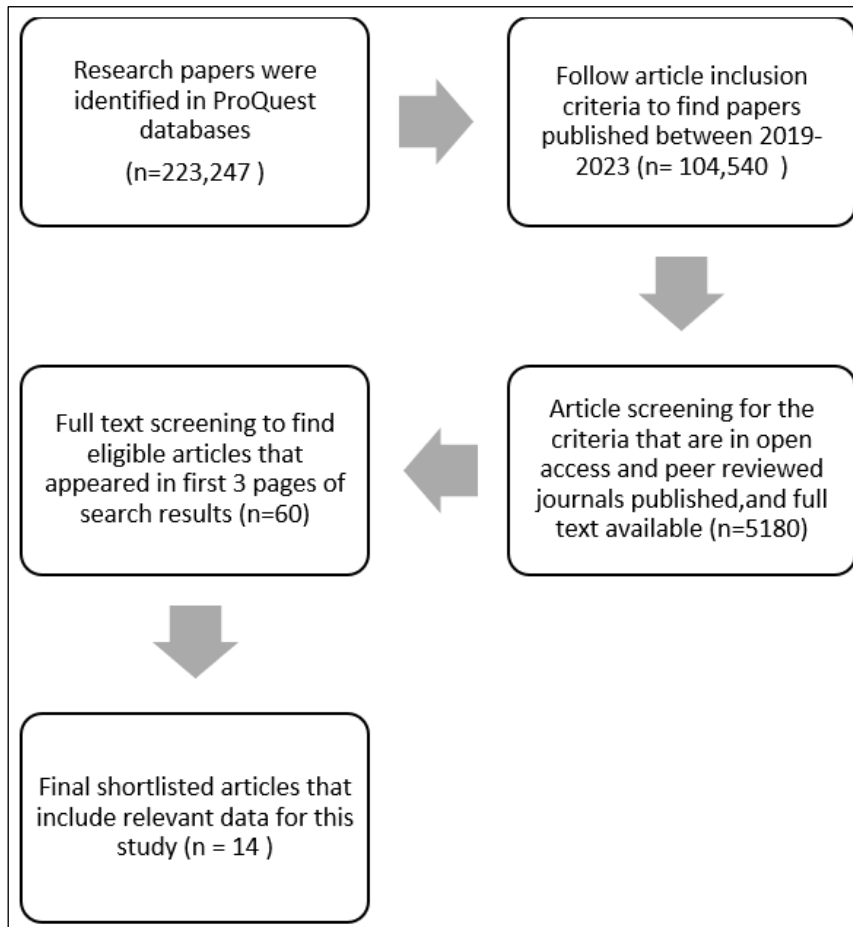


Figure 6: The Article Selection and Screening Process for retrieval of Data

8.0 Data Sampling

This study employed the convenience sampling technique, a non-probability sampling method, as outlined by Stratton (2021). The selection of the data sample adhered to the criteria specified in the article selection process mentioned earlier.

While convenience sampling was adopted as the appropriate approach for this study, it comes with limitations. The selected sources may not accurately represent the entirety of the literature on a given topic. Therefore the major limitation includes the potential bias on data used for this review (Stratton, 2021).

The data sample was chosen based on the previously mentioned article selection criteria. However,

the initial few steps of article screening resulted in shortlisted 5,180 articles. However, it is impractical to read all papers in full for selecting data. Therefore, the author utilized the ProQuest Central database's shortlisting criteria, focusing on 'relevance.' Among the shortlisted papers, the first three pages of search results revealed 60 articles related to Alternative Dispute Resolution in construction industry. These 60 papers were read in full to further shortlist the papers that include relevant data for this study. Therefore, these 14 papers constituted the sample for acquiring secondary data. Table 1 indicates the data collected for this study which are various ADR techniques used in construction industry.

Table 1: ADR techniques used in construction industry

S/N	ADR Technique	Literature Sources/Reference
1	Negotiation	Aritonang & Manlian Ronald (2020), Saeb <i>et al.</i> , (2021), Li & Cheung (2022), Anumudu & Uchendu (2023), Gaum & Laubscher (2019), Saidov (2022), Ali <i>et al.</i> , (2023), El-Sayegh <i>et al.</i> , (2020)

S/N	ADR Technique	Literature Sources/Reference
2	Facilitation	Saeb <i>et al.</i> , (2021),
3	Conciliation	Aritonang & Manlian Ronald (2020), Saeb <i>et al.</i> , (2021), Anumudu & Uchendu (2023), Gaum & Laubscher (2019)
4	Consultation	Aritonang & Manlian Ronald (2020).
5	Mediation	Aritonang & Manlian Ronald (2020), Saeb <i>et al.</i> , (2021), Anumudu & Uchendu (2023), Gaum & Laubscher (2019), Saidov (2022), Ali <i>et al.</i> , (2023), Ustuner & Tas (2019), El-Sayegh <i>et al.</i> , (2020)
6	Non binding Arbitration	Saeb <i>et al.</i> , (2021),
7	Early Neutral Evaluation	Saeb <i>et al.</i> , (2021)
8	Mini Trial	Saeb <i>et al.</i> , (2021), Gaum & Laubscher (2019)
9	Expert appraisal	Saeb <i>et al.</i> , (2021),
10	Expert determination	Aritonang & Manlian Ronald (2020), Saeb <i>et al.</i> , (2021), Saidov (2022).
11	Arbitration	Aritonang & Manlian Ronald (2020), Saeb <i>et al.</i> , (2021), Gaum & Laubscher (2019), Saidov (2022), AM <i>et al.</i> , (2022), Ali <i>et al.</i> , (2023), Kebede (2022), Hayati <i>et al.</i> , (2019), El-Sayegh <i>et al.</i> , (2020)
12	Standing Arbitrator	Saeb <i>et al.</i> , (2021),
13	Adjudication	Saeb <i>et al.</i> , (2021), Anumudu & Uchendu (2023), Gaum & Laubscher (2019), Ahmi <i>et al.</i> , (2023), Abdul <i>et al.</i> , (2023), El-Sayegh <i>et al.</i> , (2020)
14	Private Judge	Saeb <i>et al.</i> , (2021),
15	Dispute Review Board	Saeb <i>et al.</i> , (2021), Saidov (2022), El-Sayegh <i>et al.</i> , (2020)
16	Med-Arb	Saeb <i>et al.</i> , (2021),
17	Court-annexed mediation or arbitration programs	Saeb <i>et al.</i> , (2021),

9.0 Data Analysis

Various analytical methods were applied to the collected data to determine the mostly used Alternative Dispute Resolution techniques in construction industry.

Figure 7 illustrates the distribution of the 14 papers shortlisted for this study according to the year of publication.

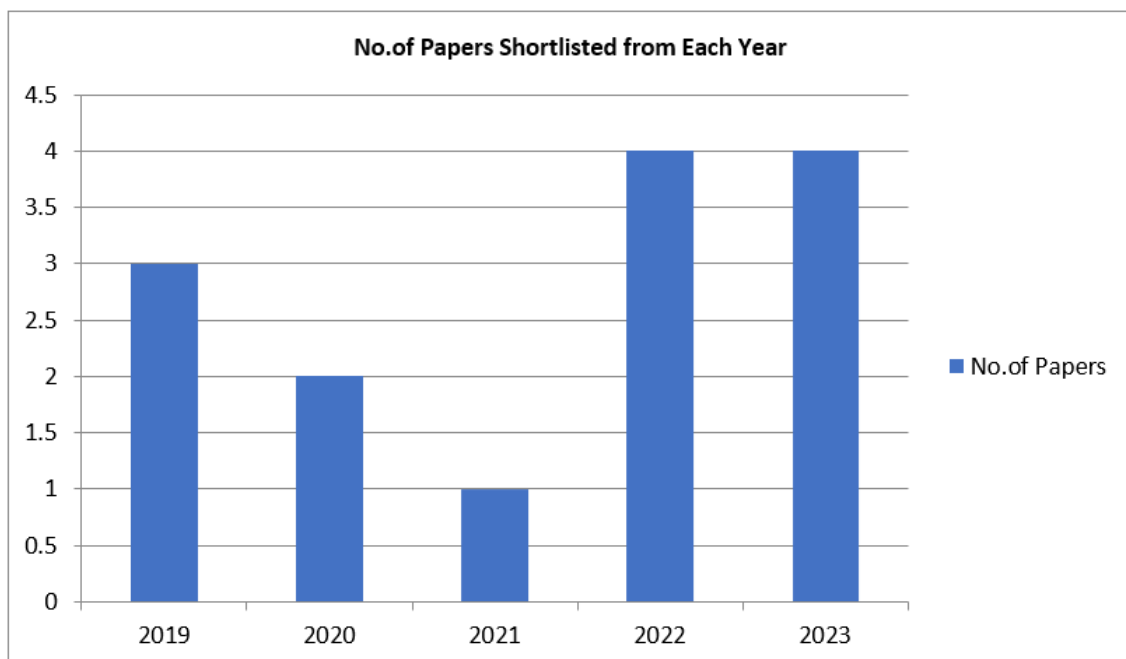


Figure 7: No. of papers shortlisted from each year

Further analyzing, figure 8 illustrates the percentage of papers published with data relevant to Alternative Dispute Resolution strategies.

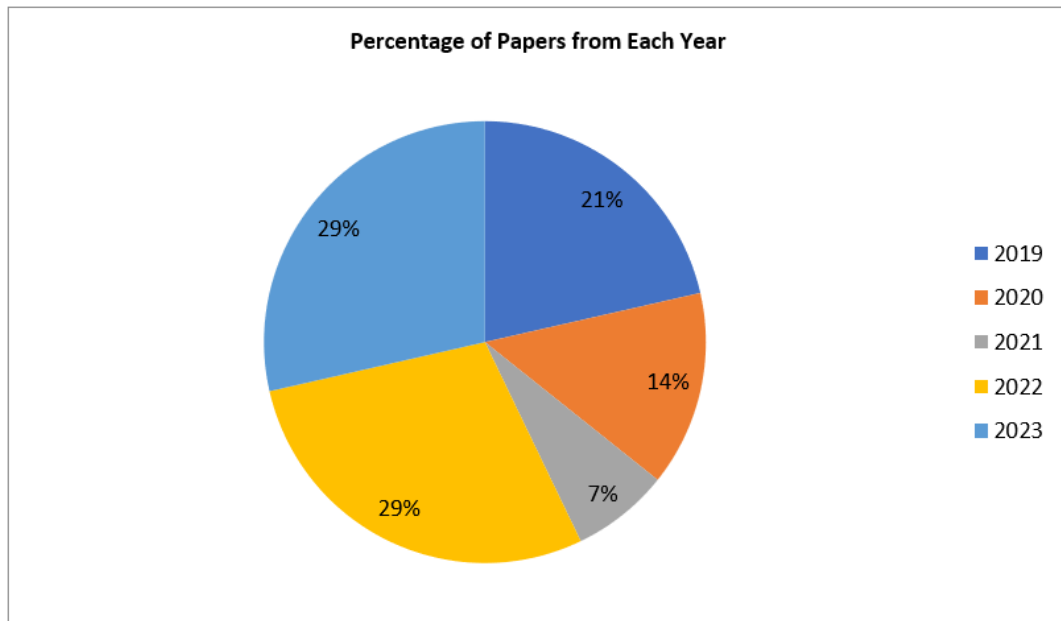


Figure 8: Percentage of Shortlisted Papers from each year that include ADR strategies

According to figure 8, most of the data gathered are represented from the papers published in 2022 and 2023 which is 29% each year. The least number of papers are from 2021 which is 7%. The collected data indicates the mostly used ADR techniques for construction disputes and this study identified 17 ADR strategies.

Following the compilation of data from the chosen 14 papers, the frequency of each ADR technique

was computed. The frequency and corresponding percentage, relative to the total number of mostly used ADR techniques, were calculated. The results are as indicated in Table 2.

The formula for percentage (%) = $(f / N) \times 100$

Where:

N: is total amount of items in data sample, (N=51).

F is frequency of each effect.

Table 2: Frequency of Each ADR techniques used in construction industry

S/N	ADR Technique	Frequency	Percentage
1	Negotiation	8	16%
2	Facilitation	1	2%
3	Conciliation	4	8%
4	Consultation	1	2%
5	Mediation	8	16%
6	Non-binding Arbitration	1	2%
7	Early Neutral Evaluation	1	2%
8	Mini Trial	2	4%
9	Expert appraisal	1	2%
10	Expert determination	3	6%
11	Arbitration	8	16%
12	Standing Arbitrator	1	2%
13	Adjudication	6	12%
14	Private Judge	1	2%
15	Dispute Review Board	3	6%
16	Med-Arb	1	2%
17	Court-annexed mediation or arbitration programs	1	2%

10.0 RESULTS & DISCUSSION

Figure 9 is drawn according to the results calculated based on frequency and its percentage of appearance as tabulated in Table 2. The widely used

ADR techniques in construction projects were analyzed according to its frequency of mentioning in shortlisted research papers. This study recognized 17 ADR techniques that are widely used in construction projects.

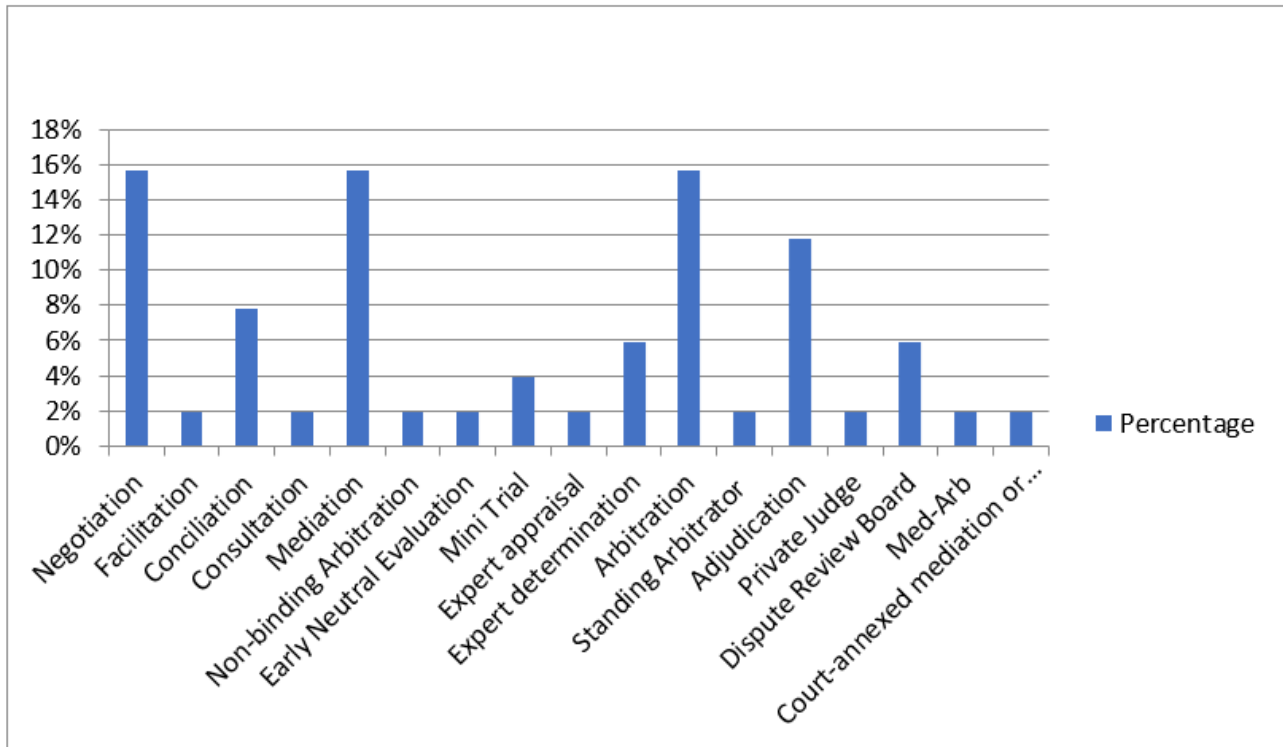


Figure 9: Percentage of Mentioning of ADR Techniques

According to Figure 9, the mostly used ADR techniques are Negotiation and Mediation. Arbitration and Adjudication are the next widely used technique in construction dispute resolution. These methods stand out as alternative dispute resolution techniques in the construction sector, aligning with established industry practices.

However, other methods such as conciliation, Expert determination and Dispute Review Board are recognized as the next widely used methods for ADR. Figure 8 further highlights the recognition of these less-explored methods. This signifies their relevance and potential in ADR for construction disputes. Therefore, considering the type of dispute and availability of resources, project leaders can choose the most suitable ADR technique for their project disputes. This study provides data that can be used as a valuable tool for informed decision-making.

10.1 Analytical Model for ADR in Construction

According to the findings of this study, Figure 10 illustrates a suggested analytical model for choosing the most suitable ADR technique for disputes in construction projects. Below are some of the details used for analytical models.

Variables: The identified variables are ADR Technique (T), Project Characteristics (PC) and Geographical Context (GC).

ADR Technique (T): Representing the specific method chosen for dispute resolution such as Negotiation, Mediation, Arbitration, Adjudication, Conciliation, Expert Determination, and Dispute Review Board.

Project Characteristics (PC): Including factors such as project size, complexity, and the nature of the dispute.

Geographical Context (GC): Capturing the legal and cultural factors specific to the project's location.

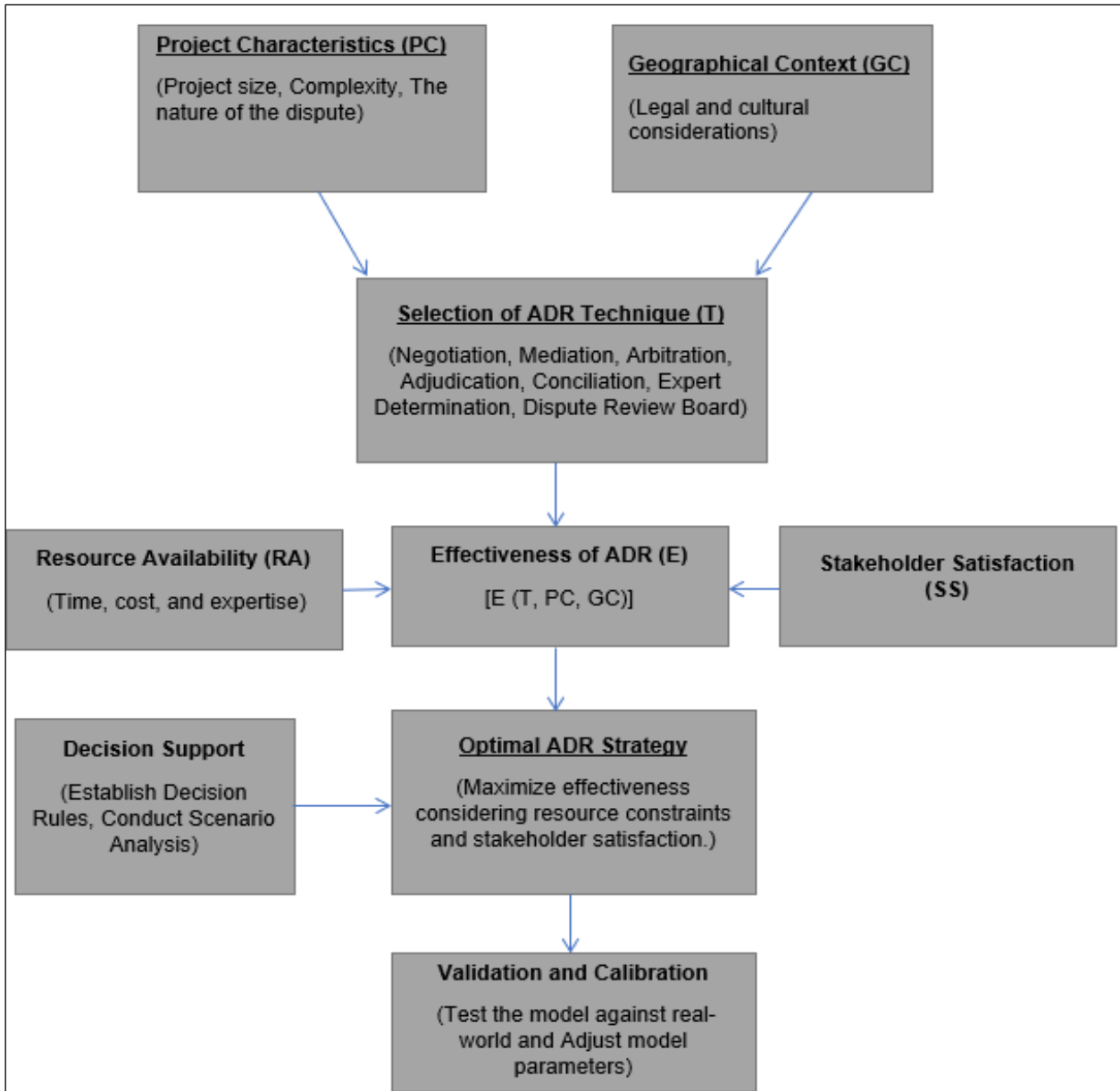


Figure 10: Analytical Model for Choosing ADR in Construction

In this model, the effectiveness function is derived as,
 $E(T, PC, GC) = f(T, PC, GC)$

The model captures the effective function of the chosen ADR technique, considering project characteristics and geographical context's impact on the overall effectiveness of dispute resolution. Resource requirements for each ADR technique (RA) and the Stakeholder Satisfaction function (SS) are parameters that have an impact on the effectiveness of the ADR technique. The model identifies the ADR technique that maximizes effectiveness while considering resource constraints and stakeholder satisfaction. It also assesses how changes in project characteristics or geographical context impact the optimal ADR strategy.

For decision support, establish rules or criteria for selecting the most suitable ADR technique based on

project characteristics and geographical context. Explore different scenarios to understand how changes in variables influence the choice and effectiveness of ADR methods. Finally, test the model against real-world data using case studies or historical data to ensure its accuracy and reliability. Then adjust model parameters based on feedback and new insights from ongoing research or practical applications.

11.0 Limitations and Research Gap

The research findings reveal several notable research gaps in the study of Alternative Dispute Resolution (ADR) in the construction industry. While there is a limited focus on certain ADR techniques such as Negotiation, Mediation, Arbitration, and Adjudication, other methods like Conciliation, Expert Determination, and Dispute Review Board remain less explored. The observation emphasizes the need for

comprehensive studies on these overlooked ADR techniques to better understand their applicability and effectiveness in construction dispute resolution. Moreover, the overall scarcity of research on ADR in the construction industry suggests a broader research gap. This emphasizes the necessity for an expanded body of work to enhance our understanding of various ADR methods and their potential improvements.

This study utilized secondary data by referring to published papers. However, it is recommended to gather primary data through surveys or interviews with experts in the construction industry. These experts should have experience in disputes and dispute resolution techniques to better understand the available ADR techniques and assess the effectiveness of each method.

Additionally, the absence of specificity to particular countries or regions indicates a need for studies that examine geographical variations in ADR strategies, focusing on culturally or legally influenced preferences.

This research also recommends testing, validating and calibrating of the analytical model suggested in Figure 10 against real-world data. Adjust model parameters based on feedback and new insights from ongoing research or practical applications. Consider collaborating with experts in the field and validating the model through empirical studies to enhance its practical relevance. The call for more research emphasizes the importance of future studies to contribute valuable insights for practitioners and policymakers, facilitating informed decision-making in construction dispute resolution.

12.0 CONCLUSION

The objectives of this paper were to review the Alternative Dispute Resolution techniques that are commonly used in the construction industry together with the pros and cons of each technique and the factors that affect choosing an appropriate ADR strategy for construction disputes once occur. This study highlights the critical need for efficient and effective mechanisms to address disputes that are inevitable in construction projects due to the dynamic and complex nature of it. Traditional litigation, with its time-consuming and costly nature, is increasingly being dominated by ADR methods such as mediation, arbitration, negotiation, expert determination, Dispute Review Boards and adjudication.

The advantages of ADR in construction disputes are evident. Time and cost savings, confidentiality, and the ability to preserve relationships make ADR a compelling choice for project leaders. The paper examines the specifics of each ADR method, exploring its applications, benefits, and drawbacks. From the collaborative problem-solving nature of negotiation to the formal decision-making process of arbitration,

project leaders have a spectrum of tools to choose from based on the nature of the dispute.

Moreover, the paper emphasizes the importance of careful consideration in choosing the most suitable ADR method. Factors such as financial constraints, organizational dynamics, legal requirements, and the nature of the dispute itself play a crucial role in decision-making. The study recommends strategic management tools like SWOT analysis and PESTLE analysis to assess organizational strengths and weaknesses before choosing the most suitable ADR strategy.

Further, disputes can lead to financial losses, project delays, and strained relationships that make a construction project unsuccessful. Therefore, ADR emerges as a vital solution. The project leaders need to select the appropriate ADR strategy to find a resolution for their disputes once they occur to close their project successfully within the initial set goals.

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