

Exploring the Challenges of Dispute Adjudication Boards (DAB) in Resolving Construction Industry Conflicts in Malaysia: A Qualitative Study

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ABSTRACT

Construction projects are usually complex and dynamic, involving multiple parties, which results in frequent disputes among the involved parties. This study aims to evaluate the challenges of Dispute Adjudication Board (DAB) implementation as an alternative dispute resolution (ADR) method within the Malaysian construction sector. This study is qualitative approach and semi-structured interviews were conducted with 15 industry experts, including contractors, clients, consultants, lawyers, and regulators. Four key challenges of DAB implementation were identified, which are legal challenges, procedural challenges, administrative challenges and socio-cultural challenges. Firstly, legal challenges primarily stem from the lack of robust frameworks and enforceability, while procedural issues highlight the absence of standardized protocols and contractual readiness. Administrative challenges include high operational costs and rigid institutional structures, whereas socio-cultural challenges and reliance on traditional methods further hinder DAB adoption. Despite these challenges. Moreover, this study also emphasizes the need for targeted reforms, such as legislative support, standardized procedures and increased stakeholder awareness in order to enhance DAB adoption. Future research should explore comparative analyses of ADR methods to provide holistic solutions for resolving construction disputes effectively.

Keywords: Alternative Dispute Resolution, Dispute Adjudication Boards (DAB), Construction Disputes, DAB Challenges.

INTRODUCTION

The construction sector is inherently complex and dynamic. With the increasing complication of construction projects, the complexity of contracts and the likelihood of disputes arising at any stage of the project lifecycle have also grown [1]. Many experts believe that owners' initial decisions regarding the selection of delivery methods, procurement approaches and contract types significantly impact the frequency and severity of disputes [2]. Construction projects are often described as fertile ground for disputes. Past research reports that these projects frequently become the source of costly and prolonged disagreements [3].

Disputes in the construction industry are unavoidable due to differing opinions among practitioners. When disputes are not managed effectively, they can escalate into prolonged arguments. These disputes present a significant obstacle to the efficient completion of construction processes [4]. Over time, the industry has employed various methods to resolve disputes, often involving both formal and informal proceedings. While court proceedings were once the primary means of addressing disputes, Alternative Dispute Resolution (ADR) methods have since gained prominence, offering less formal and more efficient options.

The Malaysian government has taken significant steps to mitigate disputes in the construction sector. Key initiatives include the establishment of the construction court in 2013 in Kuala Lumpur and Selangor and the Malaysian Mediation Centre (MMC) by the Malaysian Bar in 1999 to promote mediation as an effective

resolution method. Furthermore, the government enforced the Construction Industry Payment and Adjudication Act 2012 to regulate construction contracts and streamline adjudication processes, with adjudicators appointed by the Kuala Lumpur Regional Centre for Arbitration. Dispute Adjudication Boards (DAB), a proactive project management tool introduced to prevent and resolve conflicts early, have also been emphasized as a non-adversarial mechanism to manage disputes before escalation [3].

The DAB has proven to be an effective dispute resolution method, particularly when implemented early in conflicts to proactively mitigate disputes. This study aims to examine the challenges associated with the applicability of DABs in the Malaysian construction industry among various construction industry stakeholders.

REVIEW OF LITERATURE

Dispute Development in Construction Industry

The complexity and highly competitive nature of the construction industry has made disputes more prone to occurrence, emerging as a global issue. A framework is created within this environment through collaboration among construction professionals. Individual objectives are pursued by each participant. Furthermore, every player brings unique cultural, educational, and organizational goals, which may conflict with those of other stakeholders [5]. Previous studies have revealed that most disputes in the construction sector arise from issues related to owners, contractors, consultants, third parties, human behavior, design, and contracts [6].

In short, numerous factors contribute to the emergence of disputes in construction projects. These include the adversarial nature of contracts, poor communication among parties, ineffective on-site communication, a lack of understanding of contract terms, differing expectations among stakeholders, the fragmented structure of the industry, improper preparation of contractual documentation, tendering systems, government policies on tendering, payment delays or refusals, and unexpected impacts from third-party interests [7]. Such factors can disrupt project workflows, hinder communication between parties involved, and result in prolonged processes for resolving the disputes that may arise [8].

At the same time, the relationship formed between contractual parties is complicated and requires time and resource coordination in the project to be successful, which is the goal of all the parties involved. Success is a project completed within the original period and allocated budget. However, success is not always achieved as the contractual parties' desire as one of the major factors of unsuccessful projects is the adversarial nature between the project parties, leading to the development of disputes.

Recent Dispute Resolution Mechanism in the Malaysian Construction Industry

To minimize the impact of disputes on construction projects, selecting an effective conflict resolution method is crucial for managing disagreements [9]. These methods include approaches such as forcing, smoothing, avoiding, confronting, or compromising. In contrast, when disputes remain unresolved, further steps involve utilizing resolution methods such as nonbinding approaches, including mediation and negotiation, or binding methods like arbitration and litigation [10]. Therefore, the advantages and disadvantages of each dispute resolution method must be carefully evaluated before making a selection, as the chosen approach plays a vital role in managing disagreements that may arise among project stakeholders.

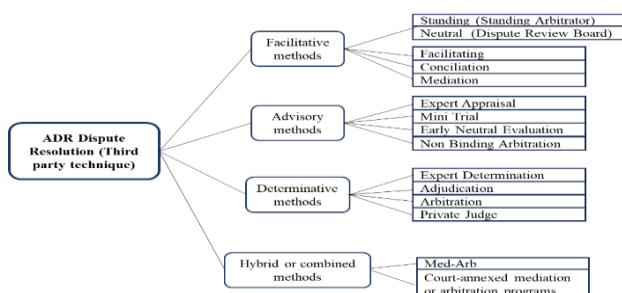


Fig. 1 ADR methods for resolving disputes in construction industry [11]

Saeb et. al. (2021b) introduced alternative dispute resolution (ADR) methods designed for resolving conflicts within the construction industry [12]. However, the dispute resolution approaches highlighted in Fig. 1 are typically implemented only after a dispute has arisen, and they often commence following the completion of a project. The emerging trend, however, focuses on identifying methods that can be initiated either proactively or shortly after a conflict arises.

Alternative Dispute Resolution (ADR) Method

Disputing parties often incur significant costs and spend considerable time on litigation, which has prompted the adoption of alternative methods collectively referred to as alternative dispute resolution (ADR) [1]. ADR encompasses a variety of techniques aimed at both preventing and resolving disputes without resorting to judicial determination. In Malaysia, the construction sector has pioneered the use of various ADR approaches. Additionally, Goldberg et. al. (2020) emphasized that selecting ADR methods tailored to the source of the dispute is crucial for effective resolution, as these methods are generally more cost-efficient, quicker and highly effective [13].

Currently, there are six important stages of dispute resolution within the context of the Malaysian construction industry, which are grievance, negotiation, mediation, adjudication, arbitration and litigation [11]. Fig. 2 represent the progressive steps taken to manage and resolve conflicts in construction projects effectively.

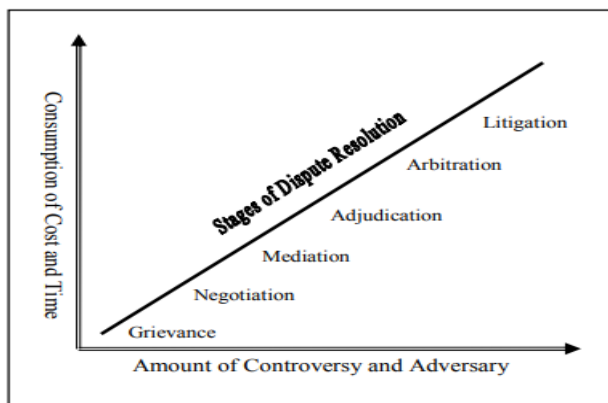


Fig. 2 Dispute resolution stages in the construction industry [11]

The first stage of dispute resolution process is grievance, where individuals may abandon disputes deemed trivial or unworthy due to limited resources or understanding, making it the least confrontational and time-consuming approach [14] & [15]. The second stage is negotiation, an informal, cost-effective method that fosters communication and preserves relationships, but it may fail to achieve consensus in complex projects [13] & [16].

The third stage, mediation, involves a neutral third-party guiding disputants toward mutually acceptable solutions without imposing decisions [17]. The fourth stage, adjudication, is a contractual, legally enforceable process often used to address payment issues efficiently and prevent escalation [18]. The fifth stage, arbitration, involves a neutral arbitrator issuing binding decisions in a confidential setting, though it can resemble litigation in complexity [19].

Finally, the sixth stage, litigation, is a formal, hierarchical court process that is costly, lengthy, and often unsatisfactory for litigants [20]. Emphasizing early-stage resolutions can save time, cost, and relationships compared to higher-stakes stages.

Dispute Adjudication Board (DAB)

The use of institutional arbitration has become gradually limited or even obsolete in the international commercial construction industry. The paradigm of dispute resolution has now shifted toward the adoption of a more modern approach known as the Dispute Adjudication Board (DAB). This method represents a recent advancement in

resolving disputes within the international commercial construction market, offering significant advantages and minimal drawbacks [21].

A DAB includes a panel of impartial, respected, independent, and experienced technical adjudicators. This board is usually organized before the beginning of the construction project and it periodically meets at the site of the job. The members of the DAB are provided with the plans, specifications, and contract documents of the construction project to improve their familiarity with the participants and procedures of the construction project, they are also kept updated with the development and the progress of the job. The DAB usually meets with the representatives of the contractor and the employer during their visits and encourages them to resolve disputes during work execution [22].

In cases where disputes cannot be resolved by the parties involved, they can be brought before the DAB for resolution. This approach has been proven effective in minimizing conflicts, saving time and reducing costs associated with lengthy legal proceedings [23].

Challenges in DAB Implementation

Although DAB is considered to be quick and efficient ways to resolve any disputes associated with construction contracts, yet, there are some issues which affecting the effectiveness of the application of DAB.

First factors that affects the DAB application is the selection of members of the DAB. As the members of the DAB need to be impartial and independent in order to provide a satisfactory solution. Li et. al. (2019) suggested that the selection of the members of the DAB is usually a complex process as it requires a lot of time to find professionals with the required knowledge and skills, however, it is also difficult to find effective members who are completely unbiased and impartial [24].

Secondly, cost of the DAB members appointment is another vital factor. Typically, the parties involved in the construction project are responsible for paying the DAB members so this process might impact the associated construction project financially if it has a limited budget [25]. Many owners in the construction sectors are determined to reduce their operational and other costs to achieve effective outcomes, so an application of an effective DAB could be difficult within the context of the construction industry in Malaysia.

Next, the decisions of the DAB are usually binding and are enforced on both involved parties, therefore, if one of the parties is not satisfied with the solution, it might not comply with the decisions of the DAB, leading to further disputes. Past studies have also criticized the binding nature of the decisions of the DAB within the context of construction contracts [26]. Additionally, the DABs have a limited scope as they are only able to resolve disputes which take place during the construction project and are unable to resolve larger issues that might be insignificant to the construction sector.

METHODOLOGY

Research Objectives

This research aims to evaluate the possibility and effectiveness of implementing the Dispute Adjudication Board (DAB) as an alternative and more efficient approach to complement existing dispute resolution methods. Additionally, the study aims to identify key challenges and stakeholder readiness for its application in the Malaysian construction industry in order to minimise disputes in the construction projects. Thus, the research objective for this study is to recognise the key challenges of the Dispute Adjudication Board (DAB) application in the Malaysian construction industry.

Research Design

Explanatory research design with qualitative approach is employed in this study. The principal aim of this design is to explore, examine and investigate the views as well as perceptions of the targeted population regarding construction disputes within the Malaysian construction industry. According to the exploratory nature of the

research, this approach is particularly suited to addressing the relatively new concept of the Dispute Adjudication Board (DAB) in Malaysia. Semi-structured interview method is appointed for collecting the qualitative data in this study.

The qualitative methodology is chosen to investigate the understanding and perceptions of participants to DAB, as many in the construction industry are not yet fully aware of its effectiveness [27]. This design also allows for an in-depth exploration of how DAB can contribute to enhancing project performance, resolving disputes effectively as well as facilitating the development of a standardized clause in construction contracts. Through qualitative analysis, the study focuses on gathering insights into the subjective thoughts and experiences of employees and stakeholders in the construction sector. Moreover, qualitative research design emphasizes interaction with participants to uncover valuable perspectives that may not be captured through quantitative methods. By doing so, it not only explores DAB's potential in improving dispute resolution but also identifies practical implications for integrating it into current construction practices [28]. This comprehensive approach ensures a nuanced understanding of DAB within its specific industry context.

Research Participants

The purposive sampling strategy was adopted for this study to ensure the selection of participants who could best address the research objectives. This sampling approach aligns with the aims of the study, enhancing the relevance and trustworthiness of the data collected and the findings interpreted [29].

A total of 15 respondents from the Malaysian construction industry were selected, comprising 3 contractors, 3 clients, 4 consultants, 3 construction lawyers, and 2 regulators. The inclusion criterion required all participants to have a minimum of 10 years of professional experience in the construction industry. This criterion was chosen because individuals with extensive experience are more likely to be familiar with disputes in the industry and can provide informed perspectives on the incorporation of the Dispute Adjudication Board (DAB) into construction practices [30].

The purposive sampling strategy ensured that participants with relevant expertise and knowledge were included, thereby strengthening the reliability of the data collected and its subsequent analysis. Fig. 3 presents the flow diagram of participant identification and selection.

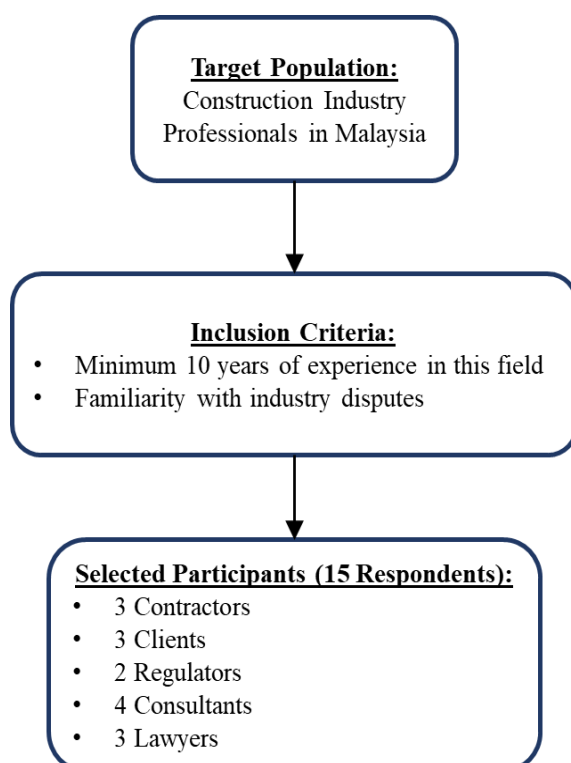


Fig. 3 Flow diagram of participant identification and selection

In qualitative research, a data saturation point is commonly observed to obtain the necessary conclusions [31]. This point states that no further data collection is of any value. Therefore, for this study, the data saturation point was reached after gathering the data from 15 participants.

Data Collection with Semi-Structured Interview

To collect information from relevant stakeholders in the Malaysian construction industry, such as construction companies, regulators, consultants, contractors, and legal experts, this study utilizes semi-structured interviews as its primary data collection method. Semi-structured interviews are a dependable and organized approach that enables researchers to gain rich, in-depth insights while maintaining the flexibility to explore participants' experiences and perspectives more comprehensively.

The interviews will be conducted in person, over the phone, or via video call, depending on the participants' availability and location. Before initiating the interviews, the consent of all respondents will be obtained to ensure ethical research practices. By asking each participant the same set of core questions, the researcher can compare and analyze responses systematically, identifying patterns and trends among the data.

The example of semi-structured interview question is:

Question 1: What do you consider to be the main challenges or barriers that organizations face when adopting the Dispute Adjudication Board (DAB) in the Malaysian construction industry?

Moreover, the semi-structured interview format allows for adjustments to account for potential biases or inconsistencies that might arise with other qualitative research methods. This flexibility enhances the reliability of the findings by enabling the researcher to probe deeper into specific topics when necessary.

Data Analysis with NVivo 14 Software

This research employs an inductive approach to analyze qualitative data, focusing on generating insights directly from the data rather than relying on pre-existing frameworks. A reflexive thematic analysis is conducted, characterized by iterative cycles of coding, interpreting and reflecting on the interview data to identify meaningful patterns and themes.

The interview transcripts prepared after conducting the data collection process, were analyzed using NVivo 14 software. The software facilitated a systematic and structured approach to data analysis, enhancing the reliability and depth of the findings. The process began with auto-coding, a feature of NVivo that automatically organizes and categorizes data based on specific patterns, phrases and keywords. This step provided an initial structure, enabling the researcher to identify key discussion points and emergent themes efficiently.

Following the auto-coding process, manual refinement was undertaken to ensure the relevance and accuracy of the codes. This reflexive process involved critically reviewing and interpreting the auto-generated codes, reorganizing them into more meaningful themes that aligned with the research objective. The iterative nature of this analysis ensured a comprehensive understanding of the data and thus allowing for the identification of nuanced insights.

RESULTS OF DATA ANALYSIS

Demographic Information of Respondents

The interview participants for this study included contractors, clients, consultants, construction lawyers and regulators, which have significant professional experience (minimum 10 years) and expertise in managing construction disputes. The details of the interview participants are depicted in Table I below.

Table I Backgrounds of the Interview Participants

Participant	Roles	Job Position	Experience (Years)
R1	Contractor	Senior Engineer	30
R2	Contractor	Head of Claims Department	35
R3	Contractor	Head of Claims Department	30
R4	Client	Head of Legal Department	26
R5	Client	General Manager	30
R6	Client	General Manager	30
R7	Consultant	Director, Adjudicator, Arbitrator & Mediator	35
R8	Consultant	Director, Adjudicator, Arbitrator & Mediator	35
R9	Consultant	Director, Adjudicator, Arbitrator & Mediator	35
R10	Consultant	Director, Adjudicator, Arbitrator & Mediator	35
R11	Construction Lawyer	Partner, Adjudicator, Arbitrator & Mediator	27
R12	Construction Lawyer	Partner, Adjudicator, Arbitrator & Mediator	30
R13	Construction Lawyer	Partner, Adjudicator, Arbitrator & Mediator	26
R14	Regulator	Director, Adjudicator, Arbitrator & Mediator	35
R15	Regulator	Head of Arbitration Unit	28

A total of 15 participants were interviewed, comprising 3 contractors, 3 clients, 4 consultants, 3 construction lawyers, and 2 regulators. Each participant has a minimum of 26 years of experience, with their expertise ranging from 26 to 35 years in the field. This diverse group of professionals provides a well-rounded perspective on the challenges and opportunities associated with implementing the Dispute Adjudication Board (DAB) in the Malaysian construction industry.

Results of Thematic Analysis

Thematic analysis was conducted using NVivo 14 software, with auto-coding serving as the initial step. Auto-coding is a feature in NVivo that facilitates the automatic organization and categorization of qualitative data based on specific patterns, phrases, and keywords. This step provides an essential foundation for identifying key discussion points emerging from the dataset. The process of auto-coding works as follows:

- Auto-identification: The NVivo software scans the data based on predefined criteria such as nodes, phrases, or specific keywords. This step enables the identification of recurring patterns within the text, forming the basis for initial categorization.
- Initial insight: This phase allows the researcher to gain an overview of the ideas, concepts, or themes emerging from the data, offering valuable initial insights [32].

After all, the outcomes of the thematic analysis are depicted as the mind map of the corresponding themes for DAB implementation challenges. Fig. 4 shows the mind map of the themes.

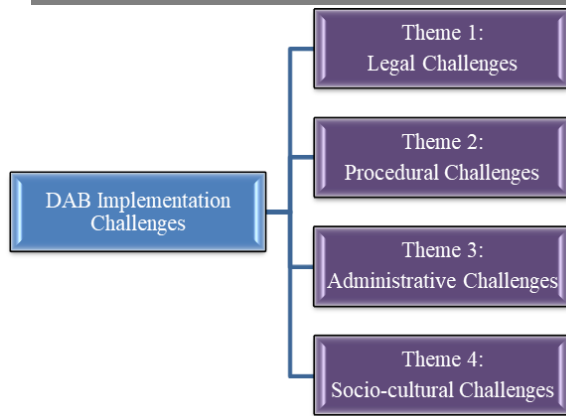


Fig. 4 Mind map for corresponding themes

Themes for DAB Implementation Challenges

Four (4) themes are formed for the challenges from the thematic analysis, which are “legal challenges”, “procedural challenges”, “administrative challenges” and “socio-cultural challenges”.

Theme 1: Legal Challenges

The first identified theme is legal challenges. According to the outcomes of the interviews, different legal challenges are detected within the context of DAB. These challenges comprise the lack of development of a legal framework regarding DAB and its legal enforcement in Malaysia. The lack of an effective and stringent legal framework hinders the successful implementation of DAB, as the procedure is not fully recognized or legalized. In this matter, R15 stated that:

“There should be a framework where it should include DAB or the mechanism of DAB or legalize DAB and also its decisions made by the board.”

Besides, different with the implementation of Construction Industry Payment and Adjudication Act (CIPAA), the legal enforcement of DAB is not guaranteed under the Malaysian law. The lack of legal provisions and enforcement mechanisms makes it difficult to ensure compliance with DAB decisions. Although DAB decisions are considered binding, however they can be set aside by the High Court or overridden by arbitration or a settlement between the parties involved. This lack of legal backing has hindered the effective implementation of DAB. As R4 remarked:

“There is no legal enforcement with regards to DAB boards.”

Moreover, the DAB procedures are also found to be non-binding which often results in ineffective resolution of the associated disputes. In this regard, R13 stated:

“Most DAB, in fact all DAB procedures are non-binding.”

Theme 2: Procedural Challenges

The second theme identified pertains to procedural challenges observed in the implementation of DAB. These challenges primarily revolve around the types of contracts employed by parties to resolve disputes. For instance, the government recommends the use of the CIDB contract form, whereas the private sector commonly adopts the PAM form. This variation in contract usage significantly influences the procedural effectiveness of DAB. Additionally, ensuring justice within these procedures is an essential consideration. As R9 highlighted:

“So this is where if you want the challenges to be applicable, the first hurdle is it needs to be in the standard form of contract.”

R10 elaborated further, emphasizing the importance of fairness:

“And justice is a two-faced thing. So if you thought whatever label you want to put, as long as the implementation of the mechanism, whatever you choose to call it, is effective, that would make it acceptable. So the challenges would be procedural in the first place.”

Initially, procedural readiness was not adequately established in the context of DAB, which hindered its overall implementation. However, the introduction of CIPAA in 2014 marked a significant turning point, providing a foundation for the development of standardized procedures over time. R1 observed:

“So, after 10 years of knowledge and experience, I think the industry was able to develop the procedures from there on.”

Theme 3: Administrative Challenges

Administrative challenges theme is the third theme for the challenges of DAB implementation. These challenges primarily revolve around the absence of an effective institutional framework, the rigid structure of roles and the limited authority of individuals nominated to the DAB.

The lack of an institutional framework poses a significant barrier and often resulting in various administrative inefficiencies that hinder the smooth implementation of DAB. Furthermore, the highly rigid and overly structured roles of the involved parties and individuals in Malaysia further constrain the effective functioning of the DAB. This rigidity creates procedural bottlenecks that affect adaptability and flexibility in addressing disputes. R14 claimed that:

“I think our problem in Malaysia particularly is that the roles are very, very structured. Very, very structured. Everything is rigid.”

Another key administrative challenge is related to the appointment and authority of individuals on the DAB. The selection process for these individuals is often constrained by administrative limitations, as noted by respondents. For instance, R10 highlighted the technical and administrative challenges associated with appointing members to the DAB:

“Or technical, if you say, because administrative consists of who you want to appoint at the DAB.”

Additionally, R5 highlighted that the limited authority granted to nominated individuals often restricts their ability to make impactful decisions, which undermines the DAB’s overall effectiveness:

“When you put the DAB clause, on the administrative, there's a limit of authority.”

Theme 4: Socio-Cultural Challenges

Socio-cultural challenges are another significant obstacle in the implementation of the DAB process. These challenges primarily revolve around the influence of politics, societal perceptions and cultural norms on the effective adoption of DAB. In Malaysia, a lack of adherence to rules and regulations by some stakeholders poses a barrier to the effective implementation of the DAB process. Although the CIPAA enforces the implementation of adjudication decisions, societal attitudes that prioritize informal practices over formal dispute resolution mechanisms can undermine the overall effectiveness of DAB. As noted by R11:

“But the problem being that if you live in a society where you find it easy to not to follow, not willingly follow the decisions from all these contractual dispute resolution mechanisms.”

Another socio-cultural challenge stems from the perception that DAB is a lengthy and costly process. This discourages some contractors from opting for DAB, prompting them to choose alternative dispute resolution (ADR) methods instead. Emphasizing the impact of social and cultural aspects, R12 stated that:

“I don't think it's so much a legal, administrative, or social, cultural thing. If at all, it's more political, because I guess if you're talking about government contracts.”

Additionally, socio-cultural factors influence the authority and decision-making of DAB members. The hierarchical position of DAB members can affect their decisions, as entities higher up in the hierarchy may seek to dictate how disputes are resolved. R6 highlighted this challenge:

“And the higher up the hierarchy one goes, the more the entity believes that it should dictate the way that any dispute is resolved.”

Lastly, the novelty of DAB in Malaysia contributes to its socio-political challenges. While DAB is well-established in other regions, its relative newness in Malaysia creates uncertainty and resistance among stakeholders. R14 noted:

“There are other reasons which I always call socio-political, which is the novelty of it. Because it's quite a novelty for Malaysia, but of course, it's done in other places.”

DISCUSSIONS

This research identifies the key challenges for implementing the Dispute Adjudication Board (DAB) in the Malaysian construction industry to minimize disputes in construction projects. The interview data undergone thematic analysis and four key themes have been discovered representing the challenges of DAB implementation, which are legal challenges, procedural challenges, administrative challenges and socio-cultural challenges. Each theme is briefly discussed in this discussion part.

For legal challenges theme, the absence of robust legal frameworks to enforce DAB decisions emerged as a significant barrier. In Malaysia, DAB rulings are not legally binding, reducing stakeholders' confidence in its reliability. Amending construction acts and introducing specific legislation to recognize and enforce DAB decisions in courts could address this issue. While for procedural challenges theme, the lack of standardized protocols leads to inconsistencies in DAB operations, making the process complex and time-consuming. High costs and perceptions of lengthy procedures further discourage stakeholders, who often favour faster and more cost-effective alternatives. Streamlining DAB processes through standardized protocols and digital tools could mitigate these issues. Additionally, lack of awareness of stakeholders about DAB and confusion with other ADR methods, like adjudication and arbitration, will further hinder its implementation. As regulator R14 stated, *“People are confused between adjudication and arbitration. And adjudication and court in the construction industry. So, a DAB working during the contract itself is something that is not seen as a norm.”*

Thirdly, in administrative challenges theme, high operational costs, including institutional fees and case management expenses, make DAB inaccessible to smaller firms. Inadequate institutional frameworks and delays caused by panel shortages or case complexities exacerbate these challenges, reducing DAB's perceived efficiency. Furthermore, the selection of appropriate DAB members is critical to ensure the effectiveness of the process. Both parties should actively participate in selecting DAB members at the inception of the project to avoid biases and inefficiencies, as highlighted by R11: *“And these DAB members are selected from the very inception of the project.”*

Lastly, under socio-cultural challenges theme, resistance to change and reliance on traditional dispute resolution methods, such as litigation and settlements, hinder DAB adoption. Cultural attitudes and a lack of familiarity with DAB further contribute to reluctance in embracing this mechanism. Additionally, the limited integration of DAB processes into existing contractual frameworks impacts its implementation. As R12 observed, *“In Malaysia is that none of our standard forms, apart from what you've recently mentioned about CIDB, incorporate a similar sort of a process into any of the standard forms.”* This indicates a need to revise standard contract forms to include DAB as a recognized dispute resolution mechanism.

In addition, this research offers a novel framework for understanding the integration and challenges of DAB within the Malaysian context, contributing to the body of knowledge by identifying the specific legal, procedural,

administrative, and socio-cultural challenges that hinder the implementation of DAB in the Malaysian construction industry. Simultaneously, it also extends the existing frameworks on alternative dispute resolution (ADR) by highlighting the importance of early-stage integration of DAB into construction contracts and provides actionable insights for developing standardized protocols.

CONCLUSIONS

In a nutshell, this study has identified four main challenges, which consist of legal, procedural, administrative and socio-cultural challenges in the implementation of the Dispute Adjudication Board (DAB) within the Malaysian construction industry. Legal challenges primarily revolve around the absence of a robust legal framework to enforce DAB decisions, which hinders its effectiveness and credibility as a dispute resolution mechanism. Procedural challenges emphasize issues related to contractual readiness and the limited integration of DAB into standard contract forms. Administrative challenges highlight high operational costs, the rigid structure of DAB processes, and the insufficient authority of appointed DAB members, which collectively diminish its appeal. Socio-cultural challenges point to resistance to change, reliance on traditional dispute resolution methods, and the influence of cultural and political factors, further complicating DAB adoption.

Despite these challenges, this study also emphasises the potential of DAB as an efficient and complementary approach to alternative dispute resolution (ADR) methods by cope with the abovementioned adoption challenges. For DAB to gain traction in Malaysia, the development of specific legislation to formally recognize and enforce DAB decisions, alongside amendments to existing construction acts, is imperative. Similarly, integrating DAB into standard contract forms can enhance procedural readiness and simplify its application in construction projects.

For future studies, the findings of this research may lack sufficient generalizability to cases where DAB is not a viable option. This highlights the need for further exploration of alternative methods for handling disputes. Future research should aim to incorporate multiple dispute resolution methods and compare their efficacy and applicability within the Malaysian construction industry. Such an approach would provide a more comprehensive understanding of the Malaysian context and offer diverse ADR options to stakeholders involved in construction disputes.

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REFERENCES

1. Alaloul, W. S., Hasaniyah, M. W., & Tayeh, B. A. (2019). A comprehensive review of disputes prevention and resolution in construction projects. *MATEC Web of Conferences*.
2. Hasanzadeh, S., Esmaeili, B., & Dodd, M. D. (2018). Examining the relationship between construction workers' visual attention and situation awareness under fall and tripping hazard conditions: Using mobile eye tracking. *Journal of Construction Engineering and Management*, 144(7), 04018060. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001516](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001516)
3. Gerber, P., & Ong, B. (2011). 21 today! Dispute review boards in Australia: Past, present, and future. *Australasian Dispute Resolution Journal*, 22(3), 180–191.
4. Cakmak, E., & Cakmak, P. I. (2014). An analysis of causes of disputes in the construction industry using analytical network process. *Procedia-Social and Behavioral Sciences*, 109, 183–187.
5. Shash, A., & Habash, S. (2021). Disputes in construction industry: Owners and contractors' views on causes and remedies. *Journal of Engineering, Project, and Production Management*, 11, 37–51. <https://doi.org/10.2478/jepm-2021-0005>
6. Soni, S., Pandey, M., & Agrawal, S. (2017). Conflicts and disputes in construction projects: An overview. *International Journal of Engineering Research and Application*, 7(6), 40–42.

7. Tayeh, B. A., Al Hallaq, K., Alaloul, W. S., & Kuhail, A. R. (2018). Factors affecting the success of construction projects in Gaza Strip. *The Open Civil Engineering Journal*, 12(1).
8. Campbell, B. (1997). Professional legal education, deep learning, and dispute resolution. *Journal of Professional Legal Education*, 15(1), 1–14.
9. Akinosho, T. D., Oyedele, L. O., Bilal, M., Ajayi, A. O., Delgado, M. D., Akinade, O. O., & Ahmed, A. A. (2020). Deep learning in the construction industry: A review of present status and future innovations. *Journal of Building Engineering*, 32, 101827.
10. Saeb, A., Mohamed, O. B., Danuri, M., & Zakaria, N. B. (2018). Critical factors for selecting a neutral to support alternative dispute resolution methods in the construction industry. *Civil Engineering Journal*, 4(1), 11–23.
11. Saeb, A., Mohd Danuri, M. S., & Mohamed, O. (2021a). Selecting the appropriate method for resolving construction disputes in Iran. *Iranian Journal of Science and Technology, Transactions of Civil Engineering*, 45, 2017–2033.
12. Saeb, A., Mohd Danuri, M. S. M., Mohamed, O., & Zakaria, N. (2021b). A mechanism for dispute resolution in the Iranian construction industry. *Journal of Construction in Developing Countries*, 26(1), 205–226.
13. Goldberg, S. B., Sander, F. E., Rogers, N. H., & Cole, S. R. (2020). *Dispute resolution: Negotiation, mediation, arbitration, and other processes*. Aspen Publishing.
14. Sinha, A. K., & Jha, K. N. (2020). Dispute resolution and litigation in PPP road projects: Evidence from select cases. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 12(1), 05019007.
15. Zaneldin, E. K. (2020). Investigating the types, causes, and severity of claims in construction projects in the UAE. *International Journal of Construction Management*, 20(5), 385–401.
16. Barnett, J., & Treleaven, P. (2018). Algorithmic dispute resolution—The automation of professional dispute resolution using AI and blockchain technologies. *The Computer Journal*, 61(3), 399–408.
17. Safapour, E., Kermanshachi, S., Kamalirad, S., & Tran, D. (2019). Identifying effective project-based communication indicators within primary and secondary stakeholders in construction projects. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 11(4), 04519028.
18. Peters, E., Subar, K., & Martin, H. (2019). Late payment and nonpayment within the construction industry: Causes, effects, and solutions. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 11(3), 04519013.
19. Sinesilassie, E., Tabish, S., & Jha, K. (2018). Critical factors affecting cost performance: A case of Ethiopian public construction projects. *International Journal of Construction Management*, 18(2), 108–119.
20. Azmi, B. N., Hamimah, H., & Azmi, I. (2018). Construction claim problems in Malaysia: From the contractors' perspective. *MATEC Web of Conferences*.
21. Seifert, B. M. (2005). International construction dispute adjudication under International Federation of Consulting Engineers conditions of contract and the dispute adjudication board. *Journal of Professional Issues in Engineering Education and Practice*, 131(2), 149–157.
22. Balogun, O. A., Anzari, N., & Thwala, W. (2017). Adjudication and arbitration as a technique in resolving construction industry disputes: A literature review. *Proceedings of the Sixth International Conference on Advances in Civil, Structural and Environmental Engineering*.
23. Charrett, D. (2018). Dispute boards and construction contracts 1. In *The Application of Contracts in Engineering and Construction Projects* (pp. 249–258). Informa Law from Routledge.
24. Li, K., & Cheung, S. O. (2019). Unveiling cognitive biases in construction project dispute resolution through the lenses of third-party neutrals. *Journal of Construction Engineering and Management*, 145(11), 04019070.
25. Noghabaei, M., Heydarian, A., Balali, V., & Han, K. (2020). Trend analysis on adoption of virtual and augmented reality in the architecture, engineering, and construction industry. *Data*, 5(1), 26.
26. Tezel, A., Koskela, L., & Aziz, Z. (2018). Lean thinking in the highways construction sector: Motivation, implementation and barriers. *Production Planning & Control*, 29(3), 247–269.
27. Erickson, S., Neilson, C., O'Halloran, R., Bruce, C., & McLaughlin, E. (2021). 'I was quite surprised it worked so well': Student and facilitator perspectives of synchronous online problem-based learning. *Innovations in Education and Teaching International*, 58(3), 316–327.

-
28. Perez, A., Howell Smith, M. C., Babchuk, W. A., & Lynch-O'Brien, L. I. (2023). Advancing quality standards in mixed methods research: Extending the legitimation typology. *Journal of Mixed Methods Research*, 17(1), 29–50.
 29. Denieffe, S. (2020). Commentary: Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 662.
 30. ul Musawir, A., Abd-Karim, S. B., & Mohd-Danuri, M. S. (2020). Project governance and its role in enabling organizational strategy implementation: A systematic literature review. *International Journal of Project Management*, 38(1), 1–16.
 31. Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, 15(5), e0232076. <https://doi.org/10.1371/journal.pone.0232076>
 32. Paulus, T. M. (2023). Using qualitative data analysis software to support digital research workflows. *Human Resource Development Review*, 22(1), 139–148. <https://doi.org/10.1177/15344843221138381>