

FACTORS TO FURTHER ENHANCE THE USE OF MEDIATION IN MALAYSIAN CONSTRUCTION INDUSTRY

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Abstract

Disputes are inevitable elements in construction industry which must be solved within reasonable time; if not it may cause non compensable damages such as delays which may affect project performance. Thus, mediation as simple, rational, speedy and economical means of dispute resolution is needed. The practice of it has persistently being integrated as part of the construction industry; nevertheless the used of mediation is still at minimum level. This research aims to further enhance the use of mediation in Malaysian Construction Industry by way of proposing factors to further enhance the used of it. The objectives of the research are to explore the current development of mediation in Construction Industry; to determine the extent of mediation being used in the settlement of disputes as well as to identify factors to further enhance the use of mediation in Construction Industry. The research has adopted quantitative research method by way of questionnaire survey. The findings revealed that the current development of mediation in construction industry takes into place with the establishment of Alternative Disputes Resolution (ADR) institutions that related to mediation in Malaysia such as the Kuala Lumpur Regional Centre of Arbitration and Malaysian Mediation Centre (MMC), with functions to promote mediation as one of the options for the settlement of construction disputes under its rules and procedures. Continue with implementation in recent CIDB standard form of contract for building works edition 2000 and Agreement and conditions of PAM contract 2006. The enforcement of Mediation Act 2012 (Act 749) further develops and encourages toward active the implementation of mediation. Apart from that, various critical causes of dispute have been found and lack of registered mediation cases being observed due to perception that disputes become more complicated or even worse by participation of a third party. Thus, negotiation suggested as the most commonly method being used. Last but not least, raising awareness on advantages of mediation recommended as the most significant factors to further enhance the use of mediation by. To conclude, construction industry can benefit from the mediation approach. Thus, the industry as a whole must collaborate and improve the adoption of mediation in Malaysian construction industry.

Keywords: Construction disputes; Mediation

1.0 Introduction

The construction industry is one of the mainstays of a country's economic progress in Malaysia. However, conflicts and disputes are inevitable elements with high possibilities of generating disputes due to the complex and fragmented nature of the industry (Oon, 2003; Barough, Valinejad, & Preece, 2013).

As regards, if disputes cannot be solved within reasonable time, they may cause non compensable damages such as delays for each project which may affect economic performance (Barough et al., 2013). Therefore, a means of dispute settlement that offers a simple, expeditious and economical process for settling disputes is needed. Prior to that, Barough et al. (2013) mentioned that mediation process is an amicable, most effective and rational way for achieving settlement negotiated between parties, and which is the only true way to achieve win-win result whilst maintaining the relationship between the parties for future dealings. Nevertheless, El Adaway (2008); Thaveeporn (2008); Asniah (2007); Chan & Suen (2005); Abdul Aziz & Kamal Halili (2008); Ismail, Abdullah, Hassan, & Mohamad Zin (2010) observed that there is no empirical evidence and lack of research on the application of private dispute resolution in Malaysian construction industry and how to ensure efficient settlement and improve private resolution.

In Malaysian construction industry, the practice of mediation is not a new, but formal mediation within the Malaysian construction industry is relatively recent development and has persistently being as part and parcel of the industry. Even though it has been introduced by several standard forms of contract, using of mediation in Malaysia has not been considered as well as arbitration (Barough, et al., 2013). Contrary to other developed countries such as Australia, Hong Kong, Singapore, United Kingdom and Kuwait, mediation process had recognized as one of the popular techniques of dispute resolution. In Malaysia, Mediation Act 2012 has received the royal assent on June 18, 2012 and was gazetted on June 22, 2012. The act was enforced by the ministry on August, 2012 and being applied in order to promote and encourage mediation as a method of alternative dispute resolution. Thus, by looking into the purpose of the Act, it should further enhance the development of mediation in Malaysian construction industry. As such, the purpose of this paper is to discuss factors to further enhance the used of mediation in Malaysian construction industry.

2.0 Literature Review

2.1 Malaysian Construction Industry And Construction Disputes

Construction project is considered by many a dispute waiting to happen (Patterson & Seabolt, 2001; Zuhairah, Azlinor, & Rozina, 2010). As the construction keeps moving forward via various projects listed under Malaysian Economic Transformation Programme (ETP), construction disputes seem inevitable and have been an endemic problem in the Malaysian construction industry. Disputes should be resolved as efficiently as possible because disputes are always wasteful an organization's resources (Thompson, Vorster, & Groton, 2000). If dispute are not promptly resolved and managed, they may cause project delays, undetermined team spirit, escalate in expenses which are hard or impossible to quantify and damage continuing business relationships (Cheung & Suen, 2002; Zuhairah et al., 2010). Thus, in line with the second thrust of Construction Industry Master Plan (CIMP) to strengthening the construction industry image, disputes should be prevented and resolved as soon as possible and the solution must be prompt.

There are various causes of dispute found by various researchers based on their different angle and point of views. Table 1 summarises the causes of disputes in construction industry determine from comprehensive literature review.

Table 1: Summary of causes of disputes in construction industry determined from comprehensive literature review.

Categories of disputes	Researchers, year and findings
Owner / client related	<p>Fenn (1997) ; "Failure to respond in timely manner, poor communications amongst members of the team, inadequate tracing mechanisms for request of information, deficient management, supervision and coordination efforts on the part of the project, lowest price mentality in engagement of contractors and designer, the absence of team spirit among the participants, reluctant to check for constructability, clarity and completeness, failure to appoint a project manager and discrepancies or ambiguities in contract documents".</p> <p>Cakmak & Cakmak (2013); "Variations initiated by the owner, change of scope, late giving possession, acceleration, unrealistic expectations, payment delays".</p>
Contractor related	<p>Carmicheal (2002); "Inadequate contractor's management, supervision and coordination, delay or suspension of works, failure to plan and execute the changes of works, failure to understand and correctly bid or price the works, lack of understanding and agreement in the contract procurement, reluctance to seek clarification and inadequate critical path method (CPM) scheduling and updated requirements".</p> <p>Sambasivan & Yau (2007); "Inadequate planning by the contractors, improper site management by the contractors, inadequate project handling experience of contractors, and delay in the payments for work completed directly affect the completion of the project and result in overrun of time".</p> <p>Jaafar, Abdul Tharim, & Shuib (2011); "Quality of work, error of pricing or costing, late instruction from architect or engineer".</p> <p>Cakmak & Cakmak (2013); "Delays in work progress, time extensions, financial failure, technical inadequacy, tendering and quality of work".</p>
Consultant / Design related	<p>Hall (2000); "Failure to understand its responsibilities under the design team contract, over request of information's, design and specification oversights ,errors or omissions resulting from uncoordinated civil, structural, architectural, mechanical and electrical design and incompleteness of drawing and specifications".</p> <p>Cakmak & Cakmak (2013); "Design errors, inadequate /incomplete specifications, quality of design and availability of information".</p>

Contractual matters	<p>Hellard (1987); "Lack of perfection in the contract documents, failure to account the cost and the psychology of people in construction".</p> <p>Kumaraswamy & Yogeswaran (1998); "Variation, extension of time, payment, quality of technical specification, availability of information, administration and management and unrealistic client expectation and determination".</p> <p>Jaafar et al. (2011); "Delay interim payment from client, client fails to respond in timely manner, application of extension of time and improper project schedules".</p> <p>Cakmak & Cakmak (2013); "Ambiguities in contract documents, different interpretations of the contract, risk allocation and other contractual problems".</p>
Project related	<p>Mitropoulos & Howell (2001); Diekmann et al., (1994); "Project uncertainty, which cause change beyond the expectation of the party; and process problems, which includes imperfect contracts and unrealistic performance expectations".</p> <p>Cakmak & Cakmak (2013); "Site conditions and unforeseen changes".</p>
Human behavioral related	<p>Mitropoulos & Howell (2001); Diekmann & Girard (1994); "People issues, problems owing to poor communication, poor interpersonal skills, opportunistic behavior and cognitive dissonance".</p> <p>Jaafar et al. (2011); "Poor communication among project team, multicultural team problem and reluctant to check constructability, clarity and completeness of project".</p> <p>Cakmak & Cakmak (2013); "Lack of communication, lack of team spirit and adversarial or controversial culture".</p>
External factor	<p>Cakmak & Cakmak (2013); "Weather, legal and economic factors and fragmented structure of the sector".</p>

Table 1 shows that there are various causes of dispute found by various researchers based on their different angle and point of views which categorized under seven (7) main categories which are related to owner, contractor, design, contractual matters, project itself and external factors.

2.2 Disputes Resolution Methods

Due to dispute is inevitably to arise it should be resolved as soonest possible before it generates negative effect to the project success. The disputants are given the freedom to choose either binding or non binding resolution (Chong & Muhammad Zin, 2009; A Rahman, Mohd Danuri, Mohamed, & Abdul Karim, 2014). To add, disputes should be resolved in speedy and economical way in order to meet both parties'

highest satisfaction (Harmon, 2003; Ismail et al., 2010; Construction Industry Master Plan (CIMP), 2006). Traditionally, construction disputes in Malaysia can be resolved through court (litigation). However, dissatisfaction with the delays, costs, and inadequacies of the litigation process are the grounds of ADR development (Mackie, Miles, Marsh, & Allen, 2000). Alternative Disputes Resolution (ADR) includes Arbitration, Mediation, Negotiation, Adjudication, Expert Determination, Mini Trial, Dispute Review Board (DRB) and Hybrid methods.

2.3 Mediation in Malaysian Construction industry

The Chairman of the Mediation Committee of the Bar Council Malaysia emphasized that business committee should actively adopt mediation in settling business related disputes. Mediation process can ease in reducing the agglomeration of commercial cases waiting to be judged in the court for the purpose of expedition in the process of resolution (Hurst & Leeming, 2007). In developed countries such as Australia, Hong Kong, Singapore, United Kingdom and Kuwait, mediation process had recognized as one of the popular techniques of dispute resolution. At it best, mediation is getting perceived to be one of dispute resolution techniques for settling construction disputes. However, in Malaysian construction industry mediation is not popular method compare to other such as arbitration and litigation. Although there are efforts to introduce mediation in construction industry through several standard forms of contract, its usage in Malaysia is considerably low (Ameer Ali, 2010).

2.3.1 Mediation in Standard Forms of Contract

The major standard forms are those commonly applied in the Malaysian construction industry consists of Public Works Department (PWD), Pertubuhan Arkitek Malaysia (PAM forms), Construction Industry Development Board (CIDB forms) and Institution of Engineers Malaysia (IEM forms) (Ismail, 2012). All the standard forms conferred herein offer arbitration as a means of dispute resolution. However, in Malaysia, CIDB 2000 and PAM 2006 are current contract forms provided with dispute resolution mechanism (Mohd Danuri, Mohd Ishan, Mustaffa, & Jaafar, 2012) and serving the disputant parties' mediation for disputes solving alternative. Unfortunately the recent version of standard forms of contract published by the government of Malaysia for the government projects which is PWD203A did not have any form of mediation clause (Ameer Ali, 2010). Therefore, this shows that the application of mediation is relatively low due to the fact that government projects are the main features in local construction industry where can contribute to higher disputes occurrences.

Table 2: Related features mediation in standard forms of contract

No	Standard forms of contract	Mediation Clause
1	Pertubuhan Arkitek Malaysia - Agreement and Conditions of PAM Contract 2006	Clause 35
2	Construction Industry Development Board - CIDB standard form of contract for Building Works Edition 2000	Clause 47
3	Public Works Department (PWD) - Standard form of contract (PWD203A (Rev.1/2010))	did not have any

		form of mediation clause
4	IEM Standard Form of Contract for Civil Engineering Works	did not have any form of mediation clause

2.3.2 Establishment of Kuala Lumpur Regional Centre for Arbitration (KLRCA) and Malaysian Mediation Centre (MMC)

In Malaysia, construction court has already been established in Selangor and Kuala Lumpur starting 1 April 2013 in which it operates to smooth the administration and instantly resolving any matters for cases regarding construction or connected with construction (Malaysia, 2013; A Rahman et. al, 2014). Prior to that, Malaysian bar has established the Malaysian Mediation Centre (MMC) in 1999 to introduce mediation in order to provide a proper solution for successful dispute resolutions (Mohd Danuri et al., 2012) and to provide avenue for successful dispute resolutions (Lim & Xavier, 2002; Bar, 2008). The centre provides mediation services by served trained mediators who have been accredited and appointed to the Panel of Mediators of the MMC (Bar, 2008; Mohd Danuri et al., 2012).

In 1978, The Kuala Lumpur Regional Centre for Arbitration (KLRCA) was established and offers facilities and assistance for the conduct of arbitral proceedings, including the enforcement of awards made in the proceedings held under the auspices of the Centre. The Rules for arbitration under the auspices of the Centre are the UNCITRAL Arbitration Rules of 1976 with certain modifications and adaptations. The Centre provides mediation services and rules which allows the parties to freely choose their mediator or from its list of accredited mediators, or failing which the director of the Centre shall assist in the appointment of mediator (KLRCA, 2010; Mohd Danuri et al., 2012).

2.3.3 Enforcement of Mediation Act 2012 (act 749)

The encouragements of Malaysia government in the implementation of mediation continue with the enforcement of Mediation act 2012 (Act 749). Mediation Act 2012 (Act 749) has been submitted to Royal assent on 18th June 2012 and gazette on 22nd June 2012. The Act has been enacted in Laws of Malaysia and enforced by the ministry on August, 2012. The Act was promulgated in order to promote and encourage the use of mediation as a method of alternative dispute resolution and aimed to facilitate disputant parties to settling the disputes in a fair, speedy and cost effective manner. In short, the Act was established to regulate the use of mediation in any related disputes. Thus, construction industry could benefit from it.

2.3.4 Disputes Cases Registered With Various ADR Institutions in Malaysia

Previous researches conducted on five (5) major Malaysian institutions that have served dispute resolution services between 2000 and 2008. The research found out that arbitration cases were the most cases reported to all institution in Malaysia. Meanwhile, there was no mediation cases reported unless

four (4) cases under Malaysian Mediation Centre (MMC). It shows that mediation cases are very low as compared to arbitration cases and lack of adoption of mediation as method of dispute settlement as compared to arbitration which tends to be more preferable. Mohd Isa, Hassan, & Mohd Nor (2009) tabled out the reasons on why mediation is not widely used in Malaysia.

Table 3: Respondents' view on why mediation is not widely used in the Malaysian construction industry (Mohd Isa et al., 2009)

No.	A list of factors on why mediation is not widely used in Malaysia
1.	Most problems can be resolved through direct-negotiation with the disputants without any involvement from others. The involvement of a third party can make disputes become more complicated or even worse.
2.	Not widely known in Malaysia since it is a new approach
3.	Not exposed to any mediation procedure since no major disputes have yet arisen which need settlement through mediation.
4.	Differential in value of work if substantial will be added or omitted progressively and this must be agreed by both parties.
5.	The main contractor will offer alternative works or projects as replacement if the sub-contractor suffers losses.
6.	Not agreed or initiated by both parties.
7.	Unaware.

2.4 Lessons Learned From Other Developed Countries

The dispute and dispute resolution method issues in the construction industry are not only occurred in Malaysia. Some developed countries had also faced the same problems related to disputes and the best way to solving it.

In Australia, the increment of trend of organizations choosing mediation as a means to resolve their disputes as well as the establishment of standard for mediators will increase the standard of mediation within the country (Ismail, 2012). To add, perceived on the benefits of mediation, active support by the courts and tribunals via active promotion, encouragement and provide opportunities together with technical expertise and facilitates the efficient ways of outcomes and solution, promoted mediation in contract clauses, support from government as well as the active role played by the institutions and professional organization (Brooker & Wilkinson, 2010).

In Hong Kong, there was active promotion by the government of Hong Kong for widely use mediation as preferred choice such as promoted mediation clause as special condition of contract in all large building and civil engineering contracts, electrical, mechanical, and building services contract as an alternative means for construction disputes settlement. Followed by "Compulsory" of the use of mediation in Airport Core Programme (ACP) conditions of contracts which includes 10 mega-projects in construction of the Hong Kong Chek Lap Kok Airport as well as the issuance of guideline to amend the mediation rules (1999 edition) to take into account the confidentiality clauses in the Works Contracts and Consultancy Agreements (Brooker & Wilkinson, 2010). Besides, the introduction of Pro Bono Mediation Scheme for the Construction Industry by the Hong Kong Mediation Council (HKMC) to promote the use

of mediation by the professional bodies and followed by the private sector by included mediation in the Joint Contract Working Committee's Standard Form of Building Contract (Cheung, 2010).

Singapore started mediation when the court started to introduce mediation as part of the judicial process (Ismail, 2012). Clearly accepted by the people and supported by the courts and government via training to mediator by Singapore International Centre, establishment of the Court Mediation Centre to introduce mediation in the subordinates' courts (Hui & Ali Mohamed, 2006; Ismail, 2012). The support by court continued with the establishment of Singapore Mediation Centre in 1997 (Ismail, 2012).

Mediation started to be used in United Kingdom (UK) in late 1900 and early 2000 (Brooker & Lavers, 2002). The acceptance of mediation considerably due to the application of mediation in the most widely used standard form of contract such as JCT and ICE (Ramsey & Frust, 2006; Brooker & Wilkinson, 2010). There also an extensive initiative has been made via establishment ADR Group, Centre for Dispute Resolution (CEDR) to provided mediation services, along with the Academy of Experts to trained mediators as well as establishes panels' accreditation (Brooker & Wilkinson, 2010). To add, support from the court in UK through stress on mediation in the civil justice reforms as well as the subsequent Civil Procedure Rules (CPR) (Ismail, 2012).

Moreover, Kuwait perceived that mediation save the costs and time of going through to arbitration and litigation, and to reach a win-win situation among parties involved and continue good relationship throughout the remainder of the contract period (Sayed-Gharib, Price, & Lord, 2010).

In contrast to other developed countries, there as barriers to the increase use of ADR in Turkey includes lack of knowledge of ADR in the industry, lack of a sector specific institutional framework, slow adaptation of the industry to new practices, non-binding nature of ADR which can be misuse to detain the other party as well as perception that suggesting ADR is a sign of weakness (Ilter & Dikbas, 2010).

3.0 Research Aim and Objectives

The purpose of the research was to further enhance the use of mediation in Malaysian Construction Industry by way of proposing factors to further enhance the used of it. The objectives of this paper are:

Objective 1: To explore the current development of mediation in Construction Industry.

Objective 2: To determine the extent of mediation being used in the settlement of disputes.

Objective 3: To identify factors to further enhance the use of mediation in Construction Industry.

4.0 Methodology

Creswell (2008) defines research as a process of steps used to collect helpful information and to have further understanding with an issue or topic through analysis of collected data. On the other hand, the methodological procedure is to ensure that all the information obtained for this research is rigorously obtained, relevant and capable of evaluation (Naoum, 2007).

For the purpose of this research, quantitative research method was adopted by way of questionnaire survey. A set of questionnaire survey had been distributed to G7 contractors registered with Construction industry development board (CIDB) which located in Klang Valley via mailed (online) and self-administered approach.

5.0 Results and Analysis

A total of thirty three (33) out of 100 respondents have returned their responses and feedback by completing and answered the questionnaires. Table 4 shows the tabulation of respondents' profession.

Table 4: Respondent's breakdown based on profession in the organization

No.	Profession	Total	Percentage (%)
1	Engineer	5	15%
2	Manager Tender and Procurement	5	15%
3	Quantity Surveyor (QS)	21	64%
4	Project Manager	2	6%
5	Others	0	0%
Total		33	100%

From the data collected, it can be concluded that the respondents are from professional level or position and most of the respondents are from good and adequate level of education. Therefore, the results from respondents' perspective believed as significant to this research area of concern. Respondents' working experience and experience in Mediation

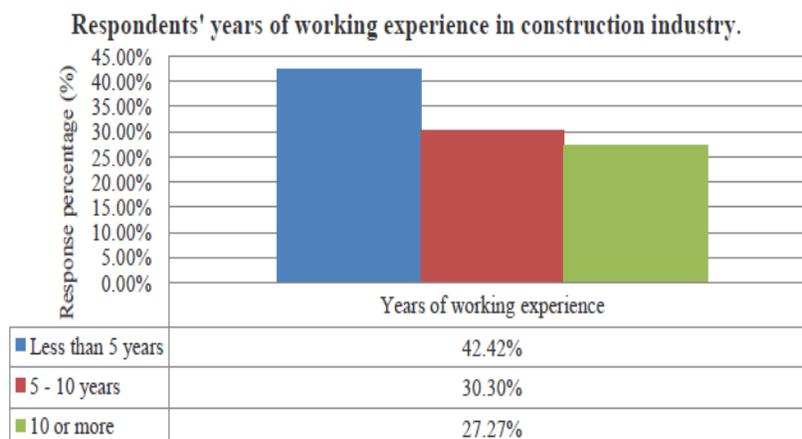
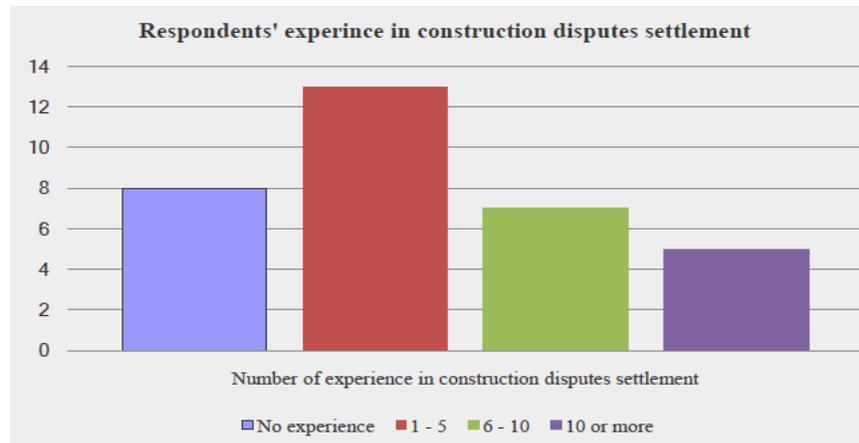


Figure 1: Respondents' years of working experience

From the data collected, Figure 1 illustrated that 14 respondents (42%) having less than 5 years experience, 10 respondents (30.30%) with 5-10 years and 9 respondents (27.27%) were 10 years or more experienced in construction industry. The bulk of the experienced respondents demonstrating that respondents probably to be experienced enough to comment on the dispute resolution matters.

**Figure 2: Respondents' experience in construction disputes settlement**

In terms of number of experience in construction disputes settlement, Figure 2 shows that almost 24% of respondents described themselves as having no experience, 39% considered themselves as having a “not much experience” with 1-5 times, 21% considered themselves as having “moderate experience” (6-10 times) and only 15% believed that they had “very much experience” which is more than 10 times experience.

It can be concluded that the majority of the respondents experienced in construction dispute and capable to answer the survey. Therefore, the results from respondents' perspective believed as significant to this research area of concern.

Objective 1: To explore the current development of mediation in Construction Industry.

The first objective of this research is to explore the current development of mediation in construction industry. This objective was achieved through literature review and questionnaire survey. In order to achieve objective 1, the causes of construction disputes and methods of resolution had been identified first in order to acknowledge the roots of this matter. Subsequent to that, these causes have been listed in questionnaire survey and respondents were requested to rank such causes based on strongly agree to the strongly disagree. Table 5, 6, 7, 8, 9 and 10 tabulated the causes of disputes by different categories in ranking order from the most to the least significant.

Table 5: Causes of disputes in by client

Causes of disputes by client	
Literature review	Results from questionnaire survey
<p><i>“Failure to respond in timely manner , variations initiated by the owner, poor communications amongst members of the team, inadequate tracing mechanisms for request of information, deficient management, supervision and coordination efforts on the part of the project, lowest price mentality in engagement of contractors and designer, the absence of team spirit among the participants, reluctant to check for constructability, clarity and completeness, failure to appoint a project manager and discrepancies or ambiguities in contract documents (Fenn ,1997); variations initiated by the owner, change of scope, late giving possession, acceleration, unrealistic expectations, payment delays (Cakmak & Cakmak , 2013)”.</i></p>	<p>Variations / change of scope, Failure to respond in timely manner, payment delays, lowest price mentality in engagement of contractors and designer, unrealistic expectations, discrepancies or ambiguities in contract documents, late giving possession, deficient management, supervision and coordination efforts on the part of the project, poor communications amongst members of the team, reluctant to check for constructability, clarity and completeness, inadequate tracing mechanisms for request of information and failure to appoint a project manager.</p>

Table 6: Causes of disputes in by contractor

Causes of disputes by contractor	
<p><i>“Inadequate contractor’s management, supervision and coordination, delay or suspension of works, failure to plan and execute the changes of works, failure to understand and correctly bid or price the works, lack of understanding and agreement in the contract procurement, reluctance to seek clarification and inadequate critical path method (CPM) scheduling and updated requirements (Carmicheal, 2002; Sambasivan & Yau, 2007; Cakmak & Cakmak, 2013); Inadequate planning by the contractors (Sambasivan & Yau, 2007); financial failure and technical inadequacy (Cakmak & Cakmak, 2013)”.</i></p>	<p>Delay or suspension of works, inadequate planning, management, supervision and coordination, financial failure, lack of understanding and agreement in the contract procurement, technical inadequacy, reluctance to seek clarification and inadequate scheduling and updated requirements, failure to understand and correctly bid or price the works and inadequate project handling experience of contractors.</p>

Table 7: Causes of disputes in by consultant

Causes of disputes by consultant	
Literature review	Results from questionnaire survey
<p><i>“Failure to understand its responsibilities under the design team contract, over request of information’s, design and specification oversights ,errors or omissions resulting from uncoordinated civil, structural, architectural, mechanical and electrical design and incompleteness of drawing and specifications (Hall, 2000); design errors, inadequate / incomplete specifications, quality of design and availability of information (Cakmak & Cakmak , 2013)”.</i></p>	<p>Incompleteness of drawing and specifications, design errors, errors or omissions resulting from uncoordinated civil, structural, architectural, mechanical and electrical design, availability of information, failure to understand its responsibilities under the design team contract, quality of design and over request of information’s, design and specification oversights.</p>

Table 8: Causes of disputes in by contractual matters

Causes of disputes by contractual matters	
Literature review	Results from questionnaire survey
<p><i>“Variation, extension of time, payment, quality of technical specification, availability of information, administration and management and unrealistic client expectation and determination (Kumaraswany & Yogeswaran, 1998; Jaafar et al., 2011); lack of perfection in the contract documents (Hellard, 1987); ambiguities in contract documents, different interpretations of the contract, risk allocation and other contractual problems (Cakmak & Cakmak, 2013)”.</i></p>	<p>Extension of time, payment., variation., ambiguities in contract documents., unrealistic client expectation and determination, different interpretations of the contract, lack of perfection in the contract documents, availability of information, administration and management, quality of technical specification and risk allocation.</p>

Table 9: Causes of disputes in by project environment

Causes of disputes by project environment	
Literature review	Results from questionnaire survey
<i>“Project uncertainty (Mitropoulos & Howell, 2001 & Diekmann et al., 1994); site conditions and unforeseen changes (Cakmak & Cakmak, 2013)”</i> .	Unforeseen changes, site conditions and project uncertainty

Table 10: Causes of disputes in by human behavior

Causes of disputes by human behavior	
Literature review	Results from questionnaire survey
<i>“Poor communication, poor interpersonal skills; opportunistic behavior and cognitive dissonance and lack of team spirit and adversarial or controversial culture Mitropoulos & Howell, 2001; Diekmann et al., 1994; Jaafar et al., 2011; Cakmak & Cakmak, 2013)”</i> .	Poor communication, poor interpersonal skills; opportunistic behavior and cognitive dissonance and lack of team spirit and adversarial or controversial culture

Table 5, 6, 7, 8, 9 and 10 demonstrated that that the causes of disputes that significantly caused by each categories are differ in ranking order from literature and research outcomes. However the causes are still in the same way and basis. Due to the fact that different project facing different conflicts and disputes, it can be concluded that, the respondents faced the conflicts and disputes in a different way. Therefore, the perspectives and findings may be slightly different from one another. To add, Table 11 demonstrated additional causes of disputes from respondents' point of view.

Table 11: Other causes of construction disputes based on respondents' viewpoint

Causes of disputes	Themes
Lack of trust among project team	Human behavior
Personal interest others than original objective of project ie kronilism.	
Not understanding the contract, proceeding with changes or variations before time and cost are agreed upon	

Owner not understanding the contract & refusing to deal with indirect costs when change or variation orders are issued	Client
Duration on extension of time (EOT), late payment-interest incurred to the Contractor, back charges-appointment of 3rd party (payment might be late)	Contractual matters
Extension of time request by contractor	Contractor

Next, the results revealed that the most common methods of resolving disputes in Malaysian construction industry are start with Negotiation as the most common method, followed by Arbitration, Litigation, Adjudication, Mediation, Mini-trial, Dispute Review Board (DRB), Expert determination and lastly Hybrid ADR. This shows that mediation is not commonly used as dispute resolution method as compared to other common methods.

This research discovered the development of mediation started since 1600s or earlier and has roots in the religious traditions and cultural practice. The rising of standards of socio-economic status and the practice of partisan politics results in loss of the community confidence in this traditional dispute resolution method. As a result, the court system is generally in common.

Current development of mediation take into place with the establishment of ADR institutions and tribunals that related to mediation in Malaysia such as the KLRCA in 1978 and MMC in 1999 with functions to promote mediation as options for disputes settlement under the centre own rules and procedure.

Furthermore, this research noticed out that mediation has not been embraced in significant manner in Malaysian construction industry due to it only offered in recent CIDB standard form of contract for building works edition 2000 and Agreement and conditions of PAM contract 2006.

The enforcement of Mediation act 2012 (act 749) continue the development and encouragements of the government toward the implementation of mediation. The act has been gazette on 22nd June 2012 and enacted under Laws of Malaysia. In short, this act was published in order to promote and encourage the use of mediation as a method of dispute resolution by facilitate disputants parties to settling the matters in a fair, speedy and cost effective manner. Prior to that, this act has been enforced by the ministry on August 2012. Therefore, the enforcement of mediation act 2012 should boost up the growth and use of mediation as method of resolving the disputes in Malaysian construction industry.

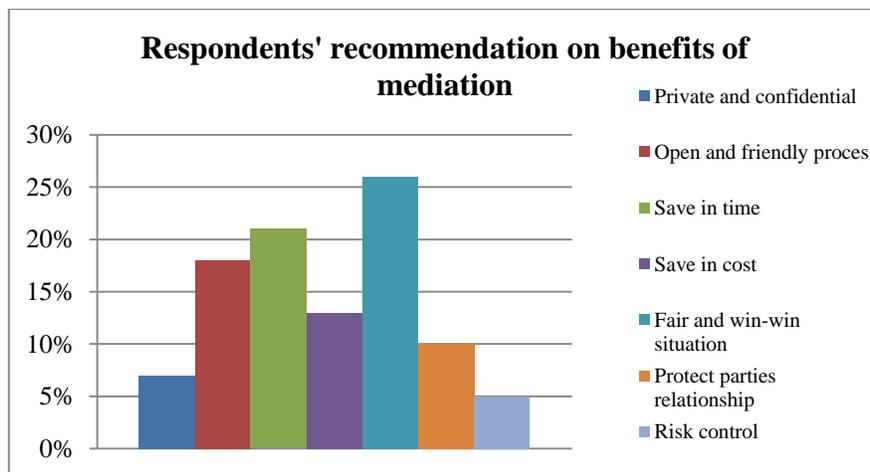
Objective 2: To determine the extent of mediation being used in the settlement of disputes.

Similarly to the first objective, this objective was achieved via literature review and questionnaire survey. This research discovered that there was lack of numbers of registered cases under legal institutions that have served dispute resolution services, showing that arbitration was the most cases reported to all institutions as compared to mediation and other method. From the data collected, several factors on why mediation is not widely used have been discovered in this research. Table 12 tabulated the factors on why mediation is not widely used.

Table 12: Factors on why mediation is not widely used

No.	Factors on why mediation is not widely used
1	Preferred to solve most problems through direct-negotiation with the disputants without any involvement from others.
2	Believed that involvement of a third party can make disputes become more complicated or even worse.
3	Lack of awareness on the mediation since it is a new approach in Malaysia.
4	Lack of exposure to any mediation procedure.
5	Disagreement in the mediation result by both parties.

Apart from that, this research also discovered the benefits of mediation in settling the construction disputes as presented in Figure 3.

**Figure 3: Benefits of mediation based on respondents' point of views**

From the data collected, majority of the respondents believed that mediation process can served the both parties with fair and win-win situation as well as save in time and cost. In addition, respondents believed that open, honest and friendly process offered by mediation as one of it benefits, followed by protecting parties relationship. Besides that, the respondents also believed that private and confidential process offered by mediation and control in risk as benefits of it. In conclusion, mediation can brings various benefits to disputant parties in various ways such as in terms of time, cost, flexible process, better solution and results as well as risk control.

Moreover, the respondents believed that Mediation Act 2012 can encourage the use of mediation by increase confidence level, provides clear legal guideline and procedure as well as improve the starting up step of mediation.

Objective 3: To identify factors to further enhance the use of mediation in Construction Industry.

The questionnaire survey has been conducted in order to achieve this objective. From the data collected, the factors to further enhance the use of mediation in Malaysian construction industry are as follows:

- Raising awareness on mediation through promotion at education level and from professional bodies.
- Offers in all standard form of contract available in Malaysia.
- As mandatory method of dispute resolution
- Put mediation under court system

Acknowledging the barriers of widespread the use of mediation, active initiatives should be taken to fully utilize the mediation as method of resolving the disputes. Therefore, support and encouragement from the professional bodies, government and court has been recommended to boost up the use of mediation.

6.0 Conclusion

From the research, the literature review provides theoretical roots of the research toward mediation issues which will complement to the questionnaire survey. The findings revealed the current development of mediation in construction industry takes into place with the establishment of KLRCA and MMC, with functions to promote mediation as options for the settlement of disputes under its own rules and procedure. Continue with implementation in recent CIDB standard form of contract for building works edition 2000 and Agreement and conditions of PAM contract 2006. Mediation act 2012 (act 749) have been enforced to continue the development and encouragements of the government toward the implementation of mediation which significantly can brings confidence to disputant parties by providing clear legal guideline and procedure. Various critical causes of dispute have been found and lack of registered mediation cases being observed due to perception that disputes become more complicated or even worse by participation of a third party. Hence, negotiation suggested as the most commonly method being used. Last but not least, raising awareness on advantages of mediation recommended as the most significant factors to further enhance the use of mediation by. Prior to the benefits of mediation and how the mediation act 2012 can serve in dispute resolution, the use of mediation ought to be widely use as well as other preferred method of disputes resolution. Therefore, active initiative to enhance the use of mediation in Malaysia should be identify and put into practice. In conclusion, construction industry can be benefited from the mediation approach. Thus, the industry as a whole must collaborate and improve the adoption of mediation in Malaysian construction industry. Figure 4 illustrated the overall development of research framework based on findings analysis

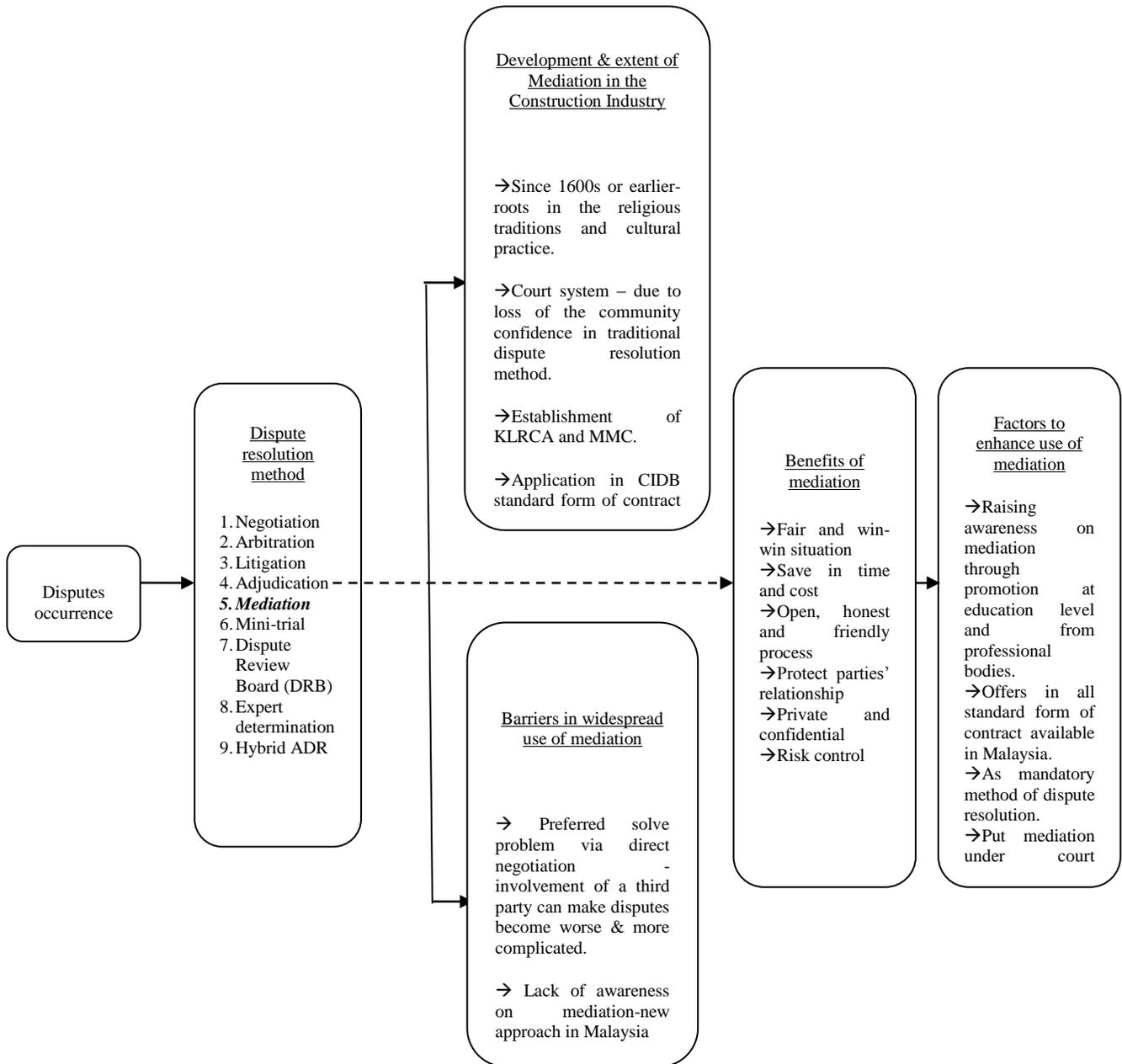


Figure 4: Development of research framework based on findings analysis

7.0 References

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