

## PRELIMINARY FINDINGS OF ALTERNATIVE DISPUTE RESOLUTION (ADR) APPLICATION BY THE G7 CONTRACTORS IN THE MALAYSIAN CONSTRUCTION INDUSTRY

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### ABSTRACT

The research described in this paper investigates the application of Alternative Dispute Resolution (ADR) by the Malaysian CIDB G7 registered construction contractors. The objective of the research is to analyse the application of ADR in the Malaysian construction industry in term of quantity, trend and obstacles. This research adopted quantitative methodology based on cross sectional survey instrument to 1000 contractors from the available sampling frame consists of 2,834 building and civil engineering contractors nationwide and the response rate was 231 (23%) which is acceptable rate for social science research. The data collected has been analysed using descriptive analysis and non-parametric statistics using SPSS 15. It was found that currently ADR is not very applicable in the Malaysian construction industry. At the same time the application of ADR is not strongly influenced by the years of establishment of the construction organisations, experience and designation of respondents, value of contract price and project duration. Overall, the level of application of ADR by the G7 construction contractors are generally low due to the characteristics, perceptions and understanding on the overall process of dispute resolution. These preliminary research findings will form a basis for the establishment of a construction ADR framework for practical utilisation in the Malaysian construction industry.

### Keywords

G7 Contractors, Alternative Dispute Resolution (ADR) and quantitative research.

### 1.0 INTRODUCTION

Alternative Dispute Resolution (ADR) refers to settlement of disputes “*other than litigation*” (Roslindah & Mohd Haris, 2002; Chapman, 2003; Capper, 2004). This includes mediation/conciliation, adjudication and arbitration, which is the available ADR in the Malaysian construction industry. Mediation goes to the root of ADR (Chapman, 2003) and arbitration is perceived to be the most frequently appropriate construction dispute resolution in Malaysia (Luen, 2006).

All the above dispute resolution/ADR can be classified as adversarial or opposing each other and non-adversarial dispute resolution as follows:-

*Table 1: Classification of ADR/Dispute Resolution (Uff, 2002; and Fiadjoe, 2004)*

Traditional Dispute Resolution	Alternative Dispute Resolution	Adversarial Dispute Resolution	Non Adversarial Dispute Resolution
Litigation Arbitration	Negotiation Mediation/conciliation Expert Determination Adjudication Arbitration Litigation	Adjudication Arbitration Litigation	Negotiation Mediation/conciliation Expert Determination

Over the last decade it has become apparent that civil justice systems around the world are in a state of crisis such as excessive cost; delays and causing distortions in business community (James, 2003). New Straits Times (18 June 2007) reported that as of July 2006 there were more than 300,000 civil cases including construction pending in the Malaysian courts and the suggested solution was ADR and in May 2008, the Minister in the Prime Minister’s Department stated that there are more than 900,000 unresolved cases in the lower courts and more than 91,000 at the High Court. He suggested that mediation (ADR) may be the answer to the mounting backlog of civil cases nationwide (New Straits Times, 09 May 2008). In 2005, Chairman of Malaysian Mediation Committee of the Bar Council stated that mediation (ADR) is already popular in other developed countries however it is yet to be widely adopted by the business community in Malaysia (New Straits Times 18 June 2007). However, not much is know about the construction industry to consider ADR?

Some researchers suggested the application of ADR has been on the rise in the construction industry in other common law countries (Lung, 2006; and Leong, 2005). However, there is limited research to confirm such application in the Malaysian construction industry. Therefore, this research aims to fill in the gap by analysing the application of ADR in term of quantity, trend and obstacles by the focus group (the Malaysian G7 building and civil engineering contractors) in order to provide indicative on the application of ADR in the Malaysian construction industry.

The purpose of this paper is to disclose some of preliminary findings from the cross sectional survey that has been conducted as part of PhD research in the said area that is currently being undertaking by the researcher.

## 2.0 RESEARCH OBJECTIVE AND RESEARCH QUESTIONS

The cross sectional survey questionnaire was designed to fulfill one of the objectives of PhD research which is “to analyse the application of construction ADR in term of quantity, trend and obstacles in Malaysia”. Due to exploratory approach of the research, the quantitative research design is expected to answer the research questions that have been framed as follows:-

RQ1. Is ADR applicable in the construction industry?

RQ2. What is the level of application of construction ADR in term of quantity?

RQ3. What is the trend of application of ADR?

RQ4. What are the obstacles in the application of ADR?

## 3.0 RESEARCH METHODOLOGY

The quantitative research design aims to inductively explore and determine that the level of application of construction ADR. This PhD research adopted probability sampling and the multi stage sampling technique whereby the focus group will be studied for more than one stage (Sekaran, 2003; Holmes, Hazadiah, & Habibah, 2006). The target group will be determined upon completion of cross sectional survey and the qualitative data collection will be conducted after that.

The whole process of the data collection was conducted between August 2006 and September 2007. The sampling frame consists of 2,834 G7 Building and Civil Engineering contractors in Malaysia registered with the Construction Industry Development Board (CIDB) between 2004 and 2005. 1000 sets of questionnaires were addressed and mailed randomly to G7 Building/ Civil Engineering contractors nationwide and the response rate was 231 (23.1%).

Table 2: Sampling Frame

State	Potential Respondents		Selected Respondents		Actual Respondents	
	N	Percent	N	Percent	N	Percent
1 Johor	144	5%	51	5%	7	3%
2 Kedah	125	4%	44	4%	2	1%
3 Kelantan	100	4%	35	4%	0	0%
4 Kuala Lumpur	716	25%	254	25%	62	27%
5 Melaka	37	1%	13	1%	1	0%
6 Negeri Sembilan	53	2%	19	2%	3	1%
7 Pahang	72	3%	25	3%	3	1%
8 Pulau Pinang	116	4%	41	4%	6	3%
9 Perak	75	3%	26	3%	4	2%
10 Perlis	18	1%	6	1%	0	0%
11 Sabah	207	7%	73	7%	5	2%
12 Sarawak	179	6%	63	6%	5	2%
13 Selangor	883	31%	312	31%	127	55%
14 Terengganu	109	4%	38	4%	4	2%
15 No answer					2	1%
<b>Total</b>	<b>2834</b>	<b>100%</b>	<b>1000</b>	<b>100%</b>	<b>231</b>	<b>100.0%</b>

#### 4.0 TECHNIQUES OF DATA ANALYSIS

The analysis of quantitative data mainly follow Sekaran (2003), Coakes (2005) and Piaw (2006) using the descriptive statistics due to the nature of the study and non-parametric data. Bivariate analysis using Chi-Square (CS) Tests for independence and correlation analysis using Cramer's V (CV) and Contingency coefficient (CC) for nominal data and spearman's rank (SR) order for ordinal data were applied. Prior to that, reliability statistical using Cronbach's alpha was conducted and if the alpha was lower than 0.65 the items was regrouped or excluded from the instrument (Sekaran, 2003; and Piaw, 2006). For open-ended questions, the analysis was based on the frequency table from the multiple response analysis.

#### 5.0 DATA ANALYSIS

Data analysis to analyse the application of ADR were based on the following variables: background and experience of the respondents and construction organisations, years of establishment, contract price and duration, number of disputed cases and satisfactory application.

##### 5.1 Background of the respondents and the construction organisations

In term of management level, 50% out of total 231 respondents are in the middle management group, whereby almost 30% in the top management and the remaining 21% is lower level. This demarcation illustrates that most of the middle management group is the one that confronted with the disputant parties and familiar with any of the dispute resolution methods.

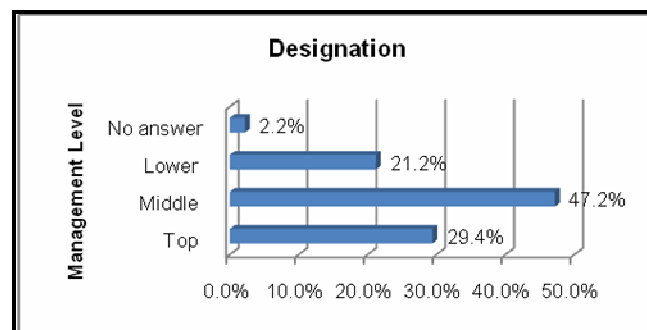


Figure 1: Breakdown of the Respondents' Designation

More than 60% of the respondents are highly experience in the construction industry with more than 11 years and the remaining 40% less than 10 years (Figure 3). Thus, middle and top management groups are largely involved with decision making and determination on behalf of the organisation particularly in the settlement of disputes and the application of dispute resolution. This is consistent

with more than 66% of the respondents experience in construction dispute while 34% of them signifies that they have not or not sure whether they have any dispute with other construction participants.

However, relationship exists between designation and the application non adversarial dispute resolution (CS sig values  $p < \alpha = 0.05$ ). Thus, designation may influence the application of non adversarial ADR. Possibly, amicable settlement is the main option to settle construction dispute among those in the higher management level due to the reasons stated earlier.

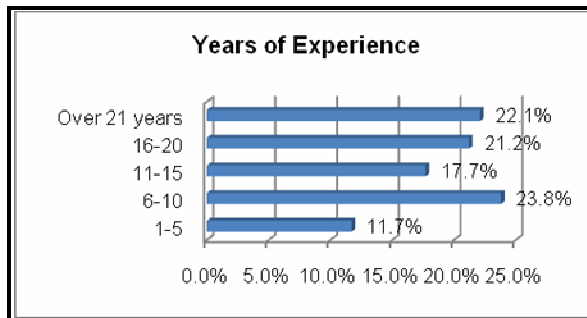


Figure 2: Respondents' Years of Experience in the Construction Industry

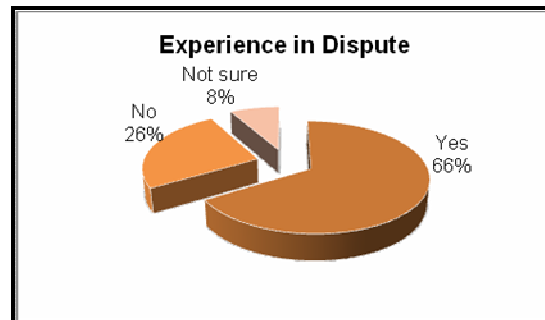


Figure 3: Respondents' Experience in Construction Dispute

In term of the establishment, almost 50% of the construction organisations were established more than 16 years; this is considered high and not many contractors are able to sustain for such a long period of time without sufficient projects in hand.

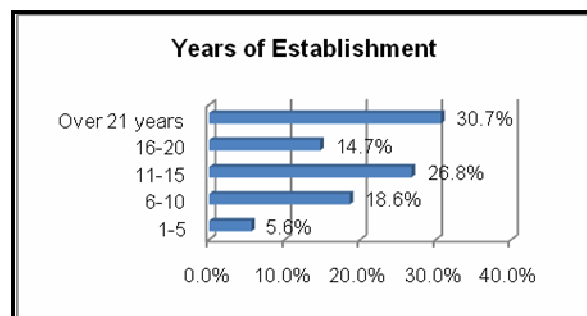


Figure 4: Construction Organisations' Establishment

### **5.2 Years of Establishment and Application of ADR**

Based on the years of establishment, the application of ADR range between 2% and 14%. It is of no surprise that adjudication is the most unutilised mode of ADR together with expert determination. However, the application of adjudication is arguable due to it being very new to the construction industry<sup>1</sup>. Comparatively, mediation/conciliation and arbitration are among the highest. As expected, arbitration is the most preferred ADR, followed by mediation, expert determination and adjudication.

For arbitration, mostly those established more than 21 years applied this method. Comparatively, those established between 11-15 years opted for mediation/conciliation and expert determination. As for the quantity, most of the construction organisations only applied ADR between 1-2 times for the entire years of establishment. However, statistically there is no relationship between variables (CS sig values  $p > \alpha = 0.05$ ; and SR  $r < 0.10$ ). Thus, the application of ADR does not related to the years of establishment.

### **5.3 Contract Price and Application of ADR**

The value of contract does not directly influence the application of ADR since there is no significant difference in term of percentage of application. However there is relationship for arbitration (CS sig values  $p = 0.007 < \alpha = 0.05$ ); thus the higher the contract price the greater is possibility of arbitration but for other ADR such relationship does not exist (CS sig values  $p > \alpha = 0.05$ ).

In terms of quantity, the application of ADR is high among those undertaken considerably high contract value but there is no relationship between maximum contract price and the application of ADR (CS sig value  $p > \alpha = 0.05$ ) except for expert determination (0.000), however the correlation is weak and insignificant (SR  $r < 0.25$ ) except for moderate correlation for arbitration (SR  $r = 0.258$ ). However, for social science the correlation should be more than 0.50 if not insignificant.

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<sup>1</sup> The application of adjudication in the Malaysian construction industry is arguable due to very new to the construction industry, thus the respondents might not familiar with that dispute resolution. However there are two consequences: first, the respondents just blindly agree that they involved in adjudication without understand it or "contractual adjudication" has been conducted since Construction Industry Payment Act and Adjudication is still in the pipeline. Even though the application is very low it is significant for the purpose of the research. However, the main primary focus of this research is arbitration and mediation/conciliation due to the practicality and long standing existence in the industry.

#### **5.4 Project Duration and the Application of ADR**

Cross tabulation between maximum project duration and the application of dispute resolution indicates that the application of ADR is high for the organisations undertaking less than 3 years project duration. Specifically, the application of arbitration is 11.9%, mediation/conciliation is 9.3%, 4.9% for expert determination and 1.8% adjudication. For other project durations, the application of ADR is less than 1.3%. In term of quantity, the application of both adversarial and non adversarial ADR is high for the organisations with maximum project duration less than 3 years for others very low. However there is no relationship and weak correlation between the maximum project duration and the application of any dispute resolution (CS sig values  $p > \alpha = 0.05$  and SR  $r < 0.25$ ).

#### **5.5 Construction Dispute Cases and the Application Of ADR**

In term of quantity the number of dispute cases range between 1 and 74 per organisation. For instance, for 1 construction dispute, 29 organisations were able to resolve, while 32 are still disputing and 29 pending, whereas for 2 cases 16 organisations were able to resolve, 26 are still disputing and 15 pending. Comparatively, there was only 1 organisation that was able to resolve 74 cases and 1 organisation was able to resolve 50 cases, while 1 organisation is still disputing and pending the same number of cases. The numbers of organisations with resolved cases are slightly higher (115 or 49.6%) if compared with still in dispute (95 or 41.2%) and pending (65 or 28.2%). Seemingly, there is a tendency to resolve disputes among the construction organisations, therefore in line with this research; the establishment of ADR framework will likely to assist the target group to resolve dispute more efficiently.

There is no significant application of ADR by the construction organisations based on the resolved cases. For instance, out of total resolved cases, 14% applied mediation/conciliation, 12% expert determination, 3% adjudication and 20% arbitration. Comparatively 38% and 90% applied litigation and negotiation respectively. Overall, as the number of cases increase the application of ADR decrease. For instance, only 1 organisation applied arbitration out of 74 resolved cases, whereas the highest application of arbitration is 4 organisations with only 1 resolved case and 3 organisations with 3 cases. Instead arbitration, there are 5 organisations applied expert determination with 1 resolved case and 3 organisations with 3 cases. Similarly, 4 organisations with 2 resolved cases applied mediation/conciliation.

**5.6 Satisfactory Towards the Application of ADR**

Large portions (51.5%) of respondents are satisfied with negotiation if compared with other ADR methods. Only small percentage of almost 3% satisfied with the application of mediation and litigation and 1.3% arbitration and expert determination. Comparatively, litigation and arbitration are the most unsatisfactory methods with 73% and 30%, respectively, not satisfied with the process.

Almost 90% of the respondents recommended negotiation as the best dispute resolution methods, mediation with 22% and small percentage of 10% prefers arbitration. Expert determination, litigation and adjudication are among the least recommended with less than 10%. In general, the results indicate that most respondents are not satisfied with the application of ADR in the Malaysian construction industry.

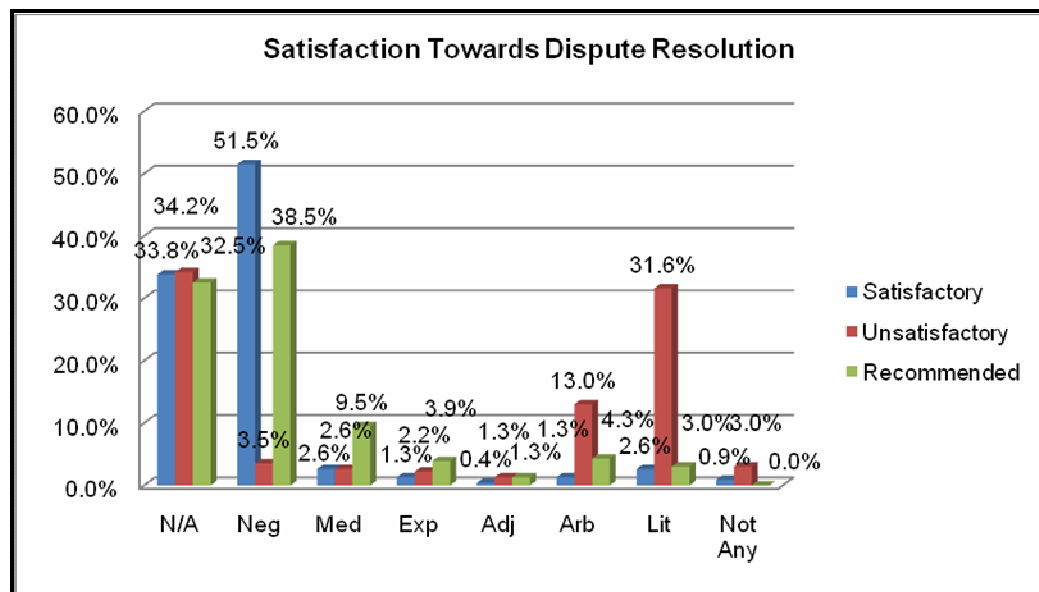


Figure 5: Respondents' Satisfaction Towards Dispute Resolution

Time and cost factors are the most important issues that led to dissatisfaction towards ADR; others are complicated process and unsatisfactory results by the third party. Since the characteristics of construction projects are one off and mobile, the problems with evidences/records and witnesses are some other issues being highlighted as well as unsatisfactory involvement of the third party.

Some of the respondents reckon that third party involvement will further detriment the concept of amicable dispute resolution. They believe that as a project team, any dispute should be resolved amicably without involvement of a third party, otherwise



other issues will emerge such as bias/misconduct/less consideration, involvement of lawyer as representative, bad reputation and relationship and inflexibility of dispute resolution process and procedure due to unfamiliarity and potential abuse.

In any situation, work progress is another issue to ponder; any dispute resolution should not affect the progress of works, this will affect into the revenue and productivity along with the amount of pressure they will bear. By implication, ADR should be formulated to be applied by considering all the stated issues.

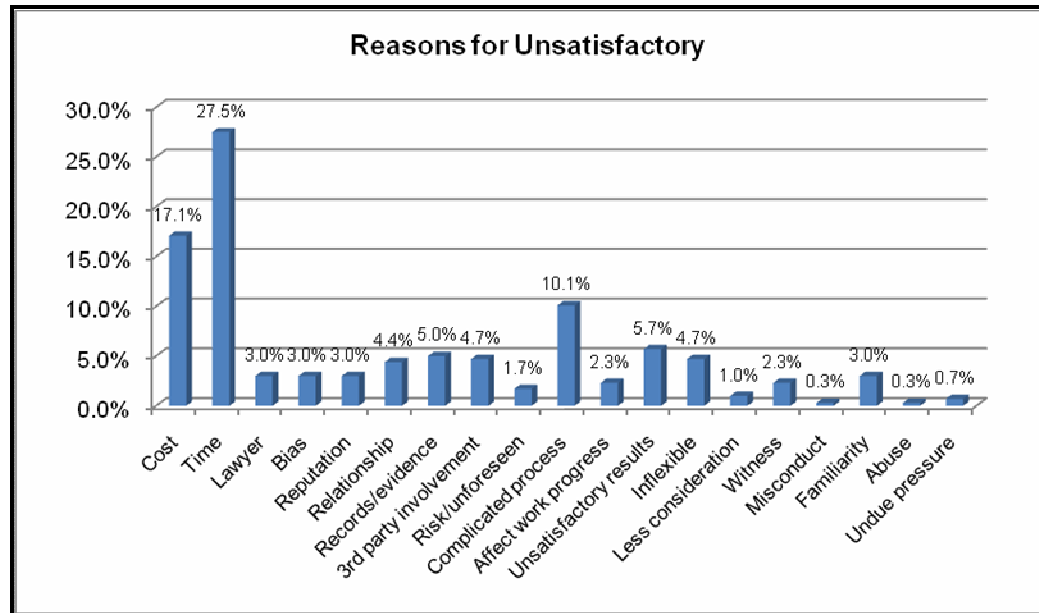


Figure 6: Reasons for unsatisfactory over dispute resolution methods

Statistical analysis indicate strong relationship and correlation between satisfactory and the application of ADR/dispute resolution methods (CS sig value  $p = 0.00 < \alpha = 0.05$ ; CV  $r > 0.76$  and CC  $r > 0.70$ ). Therefore, the satisfactory application of ADR should increase as the level of application of dispute resolution increase. Similarly, there is relationship and strong correlation between unsatisfactory and the application of dispute resolution (CS sig values  $p = 0.00 < \alpha = 0.05$ ; CV  $r > 0.70$ ; CC  $r > 0.70$ ). Therefore, the unsatisfactory application of ADR should increase as the level of application of dispute resolution increase.

Measure of association indicates relationship between the recommended and the application of ADR (CS sig values  $p = 0.00 < \alpha = 0.05$ ; CV  $r > 0.70$ ; CC  $r > 0.70$ ). Therefore, the unsatisfactory application of ADR should increase as the level of application of dispute resolution increase.

### ***5.7 Application of Dispute Resolution Throughout Their Involvement In Construction Industry***

The cross tabulations between years of experience of respondents in the construction industry and the application of ADR reported that 19% of the respondents applied mediation/conciliation between 1-2 times throughout their professional experience in the construction industry; the highest percentage goes to those more than 21 years. Second is expert determination with 15.1% applied that dispute resolution in the same frequency as mediation/conciliation, while 7.5% applied expert determination 3-5 times. Therefore, time factor may affect the application of ADR.

For adversarial ADR such as adjudication and arbitration the highest percentage goes to those applied 1-2 times throughout their professional experience in the construction industry with percentages of 7.2% and 22% respectively. Likewise for litigation, 25.8% or 49 respondents applied 1-2 times. However, measure of association identifies no association and weak correlation between years of experience in the construction industry and the application of dispute resolution in term of quantity (CS sig. values  $p = 0.00 > \alpha = 0.05$ ; SR  $r < 0.25$ ). Under these circumstances, the application of dispute resolution/ADR and years of experience in the construction industry are not positively correlated.

## **6.0 SUMMARY OF FINDINGS**

### *RQ1- Does ADR applicable in the Construction Industry?*

The application of ADR is very low regardless of years of establishment of the construction organisations, experience of individual respondents in the construction industry, value of contract price and project duration. Even though arbitration is presumed as the most widely utilised and appropriate but large percentage of respondents are not actively involved in that dispute resolution. Therefore, any ADR is yet applied vigorously in the Malaysian construction industry and reveals that currently ADR is not very applicable in the Malaysian construction industry.

### *RQ2- What is the level of application of construction ADR in term of quantity?*

Large percentage of respondents applied ADR between 1-2 times throughout the years of establishment of the organisations and very small percentage applied 3-5 times. There is no strong relationship between the applications of ADR in term of number and years of establishment; contract price; project duration; resolved cases and years of experience.

Based on the contract price, the application of ADR can be seen for considerably high contract value and the highest frequency of application is still between 1-2 times. At the same time, the application of ADR is very low for considerably low valued contract but and again the statistical analysis indicate no relationship except for moderate correlation for arbitration and expert determination in term of quantity but correlation is weak and insignificant,

In term of project duration, respondents with project duration less than 3 years are considerably active in the application of ADR, but still within 1-2 times and based on the number of resolved cases there is insignificant application of ADR.

*RQ3 - What is the trend of application of ADR?*

There are some indications that the application of ADR can be associated with value of contract price and designation. Those secured high contract value tend to apply ADR and designation may influence the application of non adversarial ADR rather than adversarial ADR. Meaning amicable settlement is preferred by those in the higher management level. However, overall non ADR - Litigation is still preferred due to enforceability issue and negotiation for amicable settlement.

Among all ADR, arbitration is one of the most unsatisfactory and thus the availability of arbitration clauses in all major standard form of construction contracts are arguable. However, mediation/conciliation can be classified as considerably accepted and recommended due to the nature of non adversarial dispute resolution, therefore the establishment of ADR framework have to consider such attribute.

Statistical analysis indicates that the level of satisfactory application of ADR should be high if the level of application increase due to existence of relationship and strong correlation, but the descriptive analysis does not indicate the same trend. Comparatively, those applied non/adversarial dispute resolution tends to have preference over non adversarial. This is confirmed by statistical analysis and the existence of relationship between the variables.

*RQ4 - What are the obstacles in the application of ADR?*

The main reasons for unsatisfaction towards ADR are: time and costs; tedious process and complicated; involvement of third party and lawyers; and record keeping, evidences and witness. ADR should be simple in any ways; this will

ensure efficient settlement of disputes. However, due to complication of dispute and high amount at stake such attributes are difficult to circumvent. If so, both parties' agreement of the process and procedures, minimum documentation and agreement of appropriate duration are necessary to ensure efficient settlement.

Due to unfamiliarity issues, some organisations might stumble in any ADR process, therefore certain typical procedure should be formulated such as ADR framework to assist all parties in settling dispute efficiently.

## **7.0 CONCLUSION**

ADR is not new to the Malaysia construction industry; this is evidenced by the existence of ADR clauses/agreements in all major construction standard form of contracts. Even so, not many construction organisations are willing to adhere to such clauses by looking for ways and means to avoid being stranded in tedious and complicated ADR processes with additional time and costs. As a result, many of them preferred to negotiate or litigate. Litigation seems to be the last resort and the best option for construction dispute resolution. However, lawyers and judges may not be familiar with the construction contracts since contractual issues involving payments are the most disputed. This will further prolong the process and escalate costs to appoint expert witnesses and searching for documents which may not be available at the time of trial since the construction projects have been completed years before that.

By looking into the characteristic of ADR, it should be the best option to resolve construction dispute. However, it is not being fully utilised due to familiarity, perceptions and understanding on the overall process. The preliminary research findings discussed is fundamental to form a basis for the establishment of ADR framework for the construction industry. However, further research need to be done to clarify on the reasons for underutilised by looking into the individual ADR cases.

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## APPENDIX

Table 3: Application of ADR/Dispute Resolution (Measure of Association)

Variables		Application of ADR/Dispute Resolution																							
		Negotiation				Mediation/ Conciliation				Expert Determination				Adjudication				Arbitration				Litigation			
		CS	CV	CC	SR	CS	CV	CC	SR	CS	CV	CC	SR	CS	CV	CC	SR	CS	CV	CC	SR	CS	CV	CC	SR
1	Years of Establishment	0.22				0.84				0.28				0.92				0.44				0.88			
2	Contract Price	0.67				0.47				0.07				0.38				0.01				0.30			
3	Project Duration	0.32				0.31				0.26				0.56				0.39				0.45			
4	Satisfactory Application	0.00	0.80	0.75		0.00	0.77	0.74		0.00	0.72	0.71		0.00	0.77	0.74		0.00	0.75	0.73		0.00	0.71	0.71	
5	Unsatisfactory Application	0.00	0.72	0.71		0.00	0.71	0.71		0.00	0.74	0.72		0.00	0.70	0.70		0.00	0.71	0.71		0.00	0.78	0.74	
6	Recommended Application	0.00	0.71	0.71		0.00	0.69	0.70		0.00	0.70	0.70		0.00	0.68	0.70		0.00	0.69	0.70		0.00	0.72	0.71	
7	Respondents Designation	0.02			-0.09	0.04			-0.14	0.05			0.15	0.21			0.15	0.86			-0.05	0.55			-0.07

Table 4: Application of ADR/Dispute Resolution in Term of Quantity (Measure of Association)

Variables		Application of ADR/Dispute Resolution in Term of Quantity											
		Negotiation		Mediation/ Conciliation		Expert Determination		Adjudication		Arbitration		Litigation	
		CS	SR	CS	SR	CS	SR	CS	SR	CS	SR	CS	SR
1	Years of Establishment	0.96	0.00	0.01	-0.03	0.64	0.02	0.44	-0.03	0.84	0.08	0.88	0.07
2	Contract Price	0.46	0.16	0.18	0.14	0.00	0.14	0.42	0.15	0.03	0.26	0.16	0.20
3	Project Duration	0.49	-0.03	0.16	0.04	0.74	0.03	0.21	0.12	0.90	0.06	0.63	-0.02
4	Respondents' Experience	0.27	0.18	0.12	0.23	0.02	0.07	0.67	0.16	0.30	0.17	0.61	0.15

**Note:**

CS - Chi-Square Tests Test for Independence

CV – Cramer's V Correlation Coefficient for nominal data

CC – Contingency Correlation Coefficient for nominal data

SR – Spearman Rank Correlation Coefficient for ordinal data