

## Appropriateness of Commercial Mediation as an Alternative Dispute Resolution Method for Subcontractor Disputes in Sri Lanka

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### ABSTRACT

Disputes in relation to construction sub-contractors are undeniable and quite diversified in common dispute arena with the legal concerns arising out of Doctrine of Privity of Contracts. Continuation of these disputes can adversely affect the cost, quality, and time metrics in a construction project. The merits of commercial mediation as an alternative dispute resolution method, in this regards Sri Lankan construction industry were less explored. Thus, the aim of this research is to determine the appropriateness of commercial mediation as an alternative dispute resolution method for subcontractor disputes. To achieve this aim, a mixed research approach was adopted. Qualitative data was collected through semi structured expert interviews. Then through a questionnaire survey, quantitative data has been gathered. While qualitative data were analyzed through content analysis, quantitative data were analyzed through relative importance index and descriptive analysis based on central tendency dispersion. Initially, both common attributes of commercial mediation and subcontractor disputes in construction industry were listed out. Then, the inter-relationship between two factors were observed. According to the findings, bespoke and incomplete contracts, subcontractor unawareness and lack of knowledge about contract details, liability and responsibility issues, failure to respond in time, interface issues and lack of coordination were identified as the most significant attributes of subcontractor disputes. Further, it was proven that except the attribute 'having freedom to accept or reject the solution', all the other attributes of commercial mediation were applicable in resolving subcontractor disputes. Hence, the commercial mediation was determined as an appropriate alternative dispute resolution method in resolving subcontractor disputes in construction projects. All the limitations and necessary recommendations for further studies are presented at the end of the study.

**KEYWORDS:** *Construction subcontractor, disputes, commercial mediation, alternative Dispute resolution.*

### 1 INTRODUCTION

Subcontractor is a construction company that enters into a contract with the main contractor to carry out some part of the general construction project work. Subcontractors are experts in specialized works, and they have sufficient resources to carry out that particular work (Shimizu & Cardoso, 2002). Therefore, contribution of the subcontractors is immense in the construction industry. Disputes are inevitable in construction projects as each construction project is unique and complexity is different from one to another. Disputes have a significant impact on the time, cost and quality metrics of a construction project which ultimately affects the success of the project (Jaffar et al., 2011). Similarly, disputes are common in subcontracting as well. Subcontractor's effective performance depends on the relationship between subcontractor and main contractor. Thus, interpersonal relationship is just as important as contractual relationship for success of a construction project. (McCord & Gunderson, 2014). Even though the relationship between subcontractor and main contractor is highly important for successful completion of a construction projects. Relationship between subcontractor and main contractor is neglected in the construction industry (Humphreys et al., 2003). In Sri Lanka, negotiation, conciliation, mediation, adjudication and arbitration are often employed as Alternative Dispute Resolution (ADR) methods (Abeynayake & Weddikkara, 2014). Subcontract disputes may significantly rattle the contractual relationships across the status quo while those will leave little time for the rectification due to the potential impacts on the contractual relationships at different layers. Furthermore,

the nature of solutions may require to be innovative and compromised rather than being confined to the merits of arguments. These concerns along with the financial and time constraints may limit the ability of resolving such disputes through the conventional ADR methods.

Mediation is an informal and voluntarily approached ADR method. It is a private method where settlements are reached amicably. Generally, mediation can be used in any type of disputes in any context (Hietanen-Kunwald, 2018). Commercial mediation is practiced in disputes that are highly technical and mercenary trades like construction industry.

According to Bush and Folger (1994) mediation is a “powerful tool” to resolute disputes satisfying both parties (Bush & Folger, 1994; Moore, 2017). Thus, the need to resolve disputes while maintaining healthy relationships between subcontractors and any other stakeholders of the project arises. Since there aren't any scientific sources which established the applicability or readiness of use of mediation as an ADR method in resolving sub-contractor disputes, there is a knowledge gap that demands on identifying the possibility of such. Hence, aim of this research is set to “determine the commercial mediation as an alternative dispute resolution method for resolving subcontractor disputes”. To achieve the aforementioned aim, the objectives of the research study were,

1. To review unique attributes of commercial mediation
2. investigate on the common disputes relating to the construction subcontracts,
3. To investigate on the common and unique attributes of disputes in construction subcontracts and
4. To identify the appropriateness of commercial mediation as an alternative dispute resolution method for subcontractor disputes in Sri Lanka.

## 2 LITERATURE REVIEW

Subcontracting is common in construction projects which have a high degree of specialization. With the increasing complexity and scale of the project, the use of subcontracting become more prominent (Tam et al., 2011). The subcontracting is necessitated by the general contractor's lack of expertise knowledge, resources, experience, specialized works, and the requirement to economize the processes. According to Hinze and Tracey (1994), in most of construction projects, 80% or 90% of the work is performed by subcontractors.

### 2.1 Subcontracting Disputes

A Subcontract includes rights and obligations of the subcontractor. It includes different clauses that define various conditions. Hence the subcontract agreement is the source where the right for payment arises (Wong & Cheah, n.d.). According to Hinze and Tracy (1994), timeliness of payment is one of the major factors in causing strife between main contractor and subcontractor. Payment clauses like “pay-when-paid” and “pay-if-paid” could cause conflicting situations between main contractor and subcontractor. Court of law describes these kinds of provisions as conditional contract due to uncertainty of payment date. Withholding a certain percentage of the interim payment for the defective work done by the contractor can be called as retainage. Generally, retainage is released to the subcontractor after the completion and remedying of defects (Clough & Sears, 1994). In some situations, this retainage will not be released to the subcontractor when main contractor has not completed the remedying of defects (Knowles, 2012). Generally, a subcontractor's work schedule is planned according to the expected cash flow. As a result, the payment to the suppliers will be made in accordance with the anticipated cash flow. Therefore, delayed payment by the employer or main contractor affects the whole plan of the subcontractor. This mostly results in conflicts among parties (Al-Hammad, 1993). Sometimes back charging also can result in disputes. According to Russel (2000), back charging is the practice of holding onto funds from subcontractor payments to compensate for costs paid by the main contractor but triggered by the subcontractor (Russell, 2000). When the obligated task is not performed by the subcontractor according to the subcontract agreement, main contractors tend to back charge from subcontractors (Hinze & Tracey, 1994). According to a study carried out by Kumaraswamy and Chang (1998), variations can result in expensive claims which ultimately turn into a dispute (Kumaraswamy & Chan, 1998).

Source of many subcontracting problems can be a result of the contractual chain of liabilities of the parties involved in the contract. A contract involves legal relations of parties to the contract.

However, the absence of a direct link between the employer and subcontractor causes numerous difficulties. According to a study done by Shivanthi, Devapriya and Pandithawatta (2019), incompleteness of contract has been identified as a critical factor between subcontractors and main contractors in causing disputes. Accordingly, ambiguities in the contract also a fuel for dispute occurrences (Shivanthi et al., 2019). There are some subcontract conditions that strain the relationship between subcontractor and main contractor such as indemnity clauses, takeover of equipment clauses and termination for convenience clauses. Standard forms of contracts have provided adequate protection for onerous set off conditions. However, contractors tend to prepare their own amended or unamended contracts including more onerous set off conditions expressing contractors right to set-off according to country law. This would cause disputes between subcontractors and main contractors (Kennedy et al., 1997). When main contractor and subcontractor enter into agreement, using standard forms of subcontract would be useful in preventing number of disputes. They are made to safeguard the interests of both main contractor and subcontractor. Sometimes subcontractors use overly simple contracts which ultimately lead to disputes as they do not address the risks and uncertainties that arise during the construction. Choudry, Arshad and Gabriel (2012), found out that standard form of subcontracts is used less in the industry (Choudhry et al., 2012). Completed clear work drawings and proper specifications are important for the execution and effective completion of construction works. Incomplete drawings and specifications result in interpretation problems and ultimately cause disputes between subcontractor and main contractor (Al-Hammad, 1993).

Underperforming subcontractors due to lack of experience can be a hindrance to construction projects as there can be many delays ultimately leading to claims and disputes. High density of subcontracting occasionally may lead to higher risks of delays (Sambasivan & Soon, 2007). This can be avoided by preparing subcontractor's programme aligning with the main contractor's programme and coordinating with each other (Rodrigo & Perera, 2016). The contractor or subcontractor must carry out construction activities according to a time schedule. Therefore, the main contractor should coordinate his construction activities with the schedule of the subcontractor. According to most subcontracts, subcontractors must get approval for shop drawings or sample materials from the main contractor. However main contractor may delay the approval due to various reasons namely poor management efficiency or delays by the employer. As a result of this, delays of the subcontractor's work take place which ultimately lead to disputes between parties regarding the cause and effect of the delay (Al-Hammad, 1993).

Moreover, the subcontractor is obligated to provide the specialized work within the time schedule. Work by the subcontractor must be implemented in accordance with the drawings and specifications. Hence there is an expected level of quality of work by the main contractor and employer. Experienced subcontractors commit fewer mistakes in the execution of construction work (Al-Hazmi, 1987). Inexperience and less knowledge of the main contractors can detrimentally impact on the productivity of subcontractors (McCord, 2010). According to Al-Hammad (1993), lack of work quality has been identified as a common problem affecting the completion of construction projects (Al-Hammad, 1993). On some occasions, subcontractors make such low bids for the sake of winning the bid, which lead them to work on low quality standards to avoid cost overruns (Kumaraswamy & Matthews, 2000). This increases the possibility of disputes between subcontractor and main contractor (Ng & Tang, 2008).

Communication can be defined as the passing of information from one to another. Not adhering to rules and regulations, issues regarding work method distribution and scheduling can be a result of poor communication (Senaratne & Udawatta, 2013). Poor communication, personality issues and human nature have been identified as major factors that cause conflicts (Friedman et al., 2000). When there are multiple subcontractors involved in a construction project, it becomes difficult for contractors to communicate with subcontractors (Choudhry et al., 2012). Generally, proper communication between contractors and subcontractors is important for a successful completion of the project. Delays are common when poor communication exists between two parties (Al-Hammad, 1993). The interface between sub-contractor and main contractor is a neglected aspect in the construction industry. The key operation of interface between subcontractor and main contractor is undermined (Humphreys et al., 2003). Interface problems between parties can have a negative impact on the completion and work quality of the construction project (Al-Hammad, 2000). White and Marasini (2014), found out that lack of trust is a significant factor affecting subcontractor – main contractor relationship. Proactive involvement of main contractor from early stages in maintaining relationship and transparency in the

process can result in a successful completion of a construction project without many interface problems (White & Marasini, 2014). Therefore, many subcontractor disputes can be found from the existing literature. Apparently, it was found that, none has provided the attributes of the subcontractor disputes but merely present the causes of such.

## **2.2 Attributes of Commercial Mediation**

As described above there can be many disputes in subcontracting attributed to various aspects. Earlier days, disputes in construction projects were settled on site with an informal meeting between disputed parties (Treacy, 1995). All over the world, litigation was considered as standard and default method for resolution of disputes (Astor & Chinkin, 1990). Although litigation was the conventional method it is an expensive and very time-consuming approach. Therefore, ADR was seen as a necessity by the construction community (Treacy, 1995). While ADR methods gaining popularity all over the world, they were included in the standard forms of contract as a means of resolving disputes and conflicts (Jannadia et al., 2000). Negotiation, conciliation, mediation, adjudication, and arbitration are widely used ADR methods in Sri Lankan construction industry (Abeynayake & Weddikkara, 2014).

The importance of mediation is gaining recognition over various countries as an ADR method in construction industry (Brooker, 2010; Jackson, 2010). In the majority of found literature the term “mediation” is used in overall context as an ADR method for construction disputes. However, this does not affect this particular research study as commercial mediation specifically refers to the use of mediation to resolve disputes in the context of business and commerce. Mediation is a voluntary ADR process. In this process “mediator” which is an unbiased and neutral person helps disputed parties to come to mutual settlements. Further mediation is a less formal and non-binding ADR process (Chau, 1992). Compared to litigation and arbitration, mediation is far less expensive (Boulle & Rycrof, 1998; Stipanowich, 1997). Therefore, it offers cost effective and timely solutions due to its less time-consuming process (Hinchey, 1992). If the parties are ready, they can take the dispute to mediation quickly as possible. Mediation attributes such as ability to resolve disputes quickly and providing low-cost solutions are the major reasons why many consider mediation over arbitration. Mediator is a neutral, impartial, and unbiased party only to assist the disputing parties to settle amicably and in a confidential manner (Ashworth et al., 2013). A mediator does not give decisions or decide the outcomes. Settlements are reached through the party involvement (binti Rahmat, 2017). Both parties have the right to check the background, experience, and knowledge of the mediator. Consequently, there is very little chance that the mediator will become prejudiced. (Boulle & Rycrof, 1998). If parties do not agree with the solution provided from mediation, they can ignore the decision and find other means to solve the dispute (Cheung, 1999). Thus, parties have the freedom to accept or reject the solution reached. Furthermore, in mediation when one party is not satisfied with the mediator’s style, attitude or the way mediator handles the process, they even have the freedom to withdraw from the mediation process. The non-binding nature of the mediation is another attractive characteristic. Another quality of mediation which defines its flexibility is the ability to make the solution or settlements reached by mediation a ‘binding decision’ with the presence of lawyers. In this manner, parties would no longer have to squander their time and money on this issue. (Rahmat & Abdul Rahim, 2020). Mediation is popular for its party autonomy, and it can be considered as a form of “distributive justice” (Harmon, 2003). The freedom given to disputing parties to determine the mediation procedure can be highlighted as an attribute of commercial mediation.

Mediation takes place in an informal and non-confrontational environment. Mediation is voluntarily approached. It is used as a dispute resolution method only if parties agreed to it. This means the mediation considers the interests and desires of disputing parties. The legal rights of the parties are considered as a reference to the mediation process (Taylor & Carn, 2010). Unlike arbitration or litigation, mediation takes a non-adversarial route. Cooperation of parties is necessary to remove hostile environment through the dispute resolution process. Mediations is the most appropriate and effective way to achieve amicable settlements. Although mediator has some control over the process, he/she does not decide the outcome (Phillips, 1997). A mediator uses different tactics to bring both parties to a common ground. The mediator only does the role of bridging between disputant parties. To do that, mediator must investigate the dispute and underlying conflicts. Trust between parties is an important factor (Jayalath, 2018). Hence mediator facilitate the parties to discuss the dispute and its underlying

conflicts. Generally, less formalities, non-hostile nature, amicable settlements voluntary approach to the process and having the opportunity to discuss underlying conflicts can be identified as attributes of commercial mediation. Litigation is a public formal process with public viewings available for media scrutiny (Bristow & Vasilopoulos, 1995). However, mediation is a private process which is not available for public viewing or media attention (Boulle & Rycrof, 1998). In mediation, parties are treated with confidentiality and immunity from court proceedings (Rahmat & Abdul Rahim, 2020). Therefore secured confidentiality can be highlighted as an attribute of commercial mediation. Thus, it's conclusive that, some of the scientific sources have identified attributes, causes and characteristics of commercial mediation.

### **3 RESEARCH METHODOLOGY**

Mixed methodology enables the investigator to consider a research topic from variety of perspectives, possibly avoiding the limitations posed by using just one quantitative or qualitative technique alone (Mackey & Bryfonski, 2018). Hence considering the research problem, study area and aim of the research, a mixed methodology was adopted for the data collection of this research. As a result, semi-structured expert interviews provide a more comprehensive understanding of subcontractor disputes, their attributes, and commercial mediation while, the questionnaire survey validates the expert interviews' findings. Initially, the current scientific knowledge on the study area is established through the comprehensive literature review. Attributes of the mediation and subcontractor disputes were identified through the literature review. Later expert interviews were conducted to confirm the literature findings on subcontractor disputes and to identify the attributes of subcontractor disputes. Identified attributes of mediation were also verified and filtered from the expert interviews. A content analysis is conducted to analyze the qualitative data. Similarly, further identification and verification of attributes of commercial mediation shall be done. A questionnaire survey was conducted to collect the quantitative data. It included a ranking of the attributes of subcontractor disputes based on their significance in causing subcontractor disputes. Those data were analyzed through the Relative Importance Index (RII). Furthermore, the appropriateness of each attribute of commercial mediation to resolve the attribute of subcontractor disputes was also questioned using a Likert scale. After analyzing the responses for the likelihood of mediation attributes in resolving attributes of subcontractor disputes, appropriateness of commercial mediation as an ADR method for subcontractor disputes has been determined using a descriptive analysis method. Since the study was not build on a hypothesis, but rather tested a preconceived hypothesis, the deductive theory is followed. The design paradigm is pragmatism, and the strategy of inquiry is observational research in hybrid strategies.

### **4 DATA ANALYSIS AND DISCUSSION**

#### **4.1 Profile of the Expert Participated in Semi Structured Interviews**

For the semi-structured interviews five experts from the industry were interviewed. For the easy referral, they have been denoted as R1, R2, R3, R4 and R5. The experts were from engineering, quantity surveying and arbitration disciplines. Out of the 5 interviewees R3 didn't respond and express his opinion on commercial mediation as he/she does not possess the expertise on that subject matter.

#### **4.2 Attributes of Commercial Mediation in Sri Lanka**

All R1, R2, R4 and R5 agreed on the 9 identified attributes of commercial mediation from the literature review. R3 did not express his/her opinion on the subject matter of subcontractor disputes.

1. Ability to resolve disputes quickly.
2. Provide low-cost solutions.
3. Encourage parties to settle amicably while maintaining the good relationship.
4. Having freedom to accept or reject the solution reached.
5. Voluntarily approached by the parties
6. Less formal process and non-adversarial nature
7. Provide an opportunity to discuss the disputes and underlying conflicts in a setting.
8. Confidentiality is secured.

9. Having freedom to determine the procedure.

#### **4.3 Subcontractor Disputes in Sri Lanka**

Interviewees were asked about the common disputes in Sri Lankan construction industry. R1, R2, R3 and R4 all agreed with the literature findings such as payment related disputes, bond related disputes, site safety, contractual issues, design related disputes, delays, workmanship, poor communication, and interface issues. R5 did not express his opinion on subcontractor disputes. R1, R2 and R4 disagrees with insurance related disputes as those disputes are not common in Sri Lanka. Thus, it must be disregarded as the research study is limited to subcontractor disputes in Sri Lankan construction industry. Additionally, R1 highlighted design liability as a common subcontractor dispute in Sri Lanka. R1, R2, R3 and R4 mentioned that there can be testing and commissioning related disputes. Furthermore, R1 stated that Liquidated damages related disputes can take place in construction projects as well. R1, R2 and R3 agreed on this in subsequent interviews. R2 and R3 highlighted warranty issues as a common dispute in Sri Lanka. R4 agreed on this statement. Identified common subcontractor disputes are listed below.

1. Payment related disputes.
2. Bond related disputes
3. Site safety
4. Contractual issues
5. Design
6. Delays
7. Workmanship
8. Poor communication
9. Interface problems
10. Warranty issues
11. Testing and commissioning
12. Bid shopping.

#### **4.4 Attributes of Subcontractor Disputes in Sri Lanka**

Based on the identified common disputes, the attributes were explored through the expert interviews. Out of 5 interviewees, 4 of them were asked about the attributes of subcontractor disputes. They all (R1, R2, R3, R4) agreed on 2 major attributes of subcontractor disputes. The first attribute is Subcontractor unawareness and lack of knowledge about contract details and the second attribute is Bespoke and informal contracts. Out of the 4 interviewees R2, R3 and R4 of them agreed that liability and responsibility issues, failure to respond in time, unfair construction practice and main contractor dominance over subcontractors and lack of communication are major attributes of subcontractor disputes. Main Contractor/ subcontractor ignorance, lack of coordination, and interface issues were mentioned by only 2 participants to the interviews which are R3 and R4. R3 suggested risks and uncertainties as an attribute of subcontractor disputes.

The outcome was thereafter explored through a content analysis to settle to the following list of attributes.

1. Subcontractor unawareness and lack of knowledge about the contract details
2. Bespoke and incomplete contracts
3. Liability and responsibility issues
4. Employer main contractor / Subcontractor ignorance
5. Failure to respond in time
6. Main contractor dominance over subcontractor in Sri Lanka
7. Risks and Uncertainties
8. Subcontractor/main contractor faults and incapacibilities
9. Lack of communication
10. Interface issues
11. Lack of coordination

#### 4.5 Profile of the Expert Participated in the Questionnaire Survey.

Quantitative data were gathered through a questionnaire survey. Total of 38 respondents were able to participate in the survey. 68% of the participants are quantity surveyors. 16% of the participants are engineers. Rest of the participants are architects, arbitrators, adjudicators, and mediators. 76% of the respondents has the 0 – 10 years of experience in the construction industry. 21% of the participants have 10 – 20% of the work experience. Only 3% of the participants have more than 20 years of experience. 20 respondents have a bachelor's degree which represent 52% of the respondents. 9 respondents carry a Higher Diploma which indicates the 24% of the respondents. 21% of the sample have a master's degree and only 1 respondent has a doctoral degree.

#### 4.6 RII Analysis

Respondents were requested to rank the attributes of subcontractor disputes based on the significance of causing disputes in a Likert scale. Likert scale was scaled from 1 to 5, 5 being the most significant and 1 being the least significant. Using this analysis, values with positive deviation were considered as the most significant contributors in causing subcontractor disputes. The following Table 1 illustrate the RII analysis carried out to analyze the above-mentioned quantitative data.

Table 1. RII data analysis

Factors	1	2	3	4	5	Total	A*N	RII	Deviation
Bespoke and incomplete contracts	1 8	9	3	1	7	38	144	0.76	0.0669856
Subcontractor unawareness and lack of knowledge about the contract details	1 8	7	3	4	6	38	141	0.74	0.0511962
Liability and responsibility issues	5	20	6	5	2	38	135	0.71	0.0196172
Failure to respond in time	7	20	2	4	5	38	134	0.71	0.0143541
Interface issues	8	15	7	5	3	38	134	0.71	0.0143541
Lack of coordination	8	16	4	8	2	38	134	0.71	0.0143541
Subcontractor / main contractor faults and incapacities	5	14	1 3	5	1	38	131	0.69	-0.0014354
Main contractor dominance over subcontractor in Sri Lankan construction practice	8	9	1 3	7	1	38	130	0.68	-0.0066986
Employer / Main Contractor / Subcontractor ignorance	4	13	1 1	8	2	38	123	0.65	-0.0435407
Lack of communication	3	10	1 8	6	1	38	122	0.64	-0.0488038
Risks and uncertainties	5	12	7	8	6	38	116	0.61	-0.0803828
Total RII value								7.6	
AVG of RII (from total)								0.6909091	

According to the findings, Bespoke and incomplete contracts, Subcontractor unawareness and lack of knowledge about contract details, Liability and responsibility issues, Failure to respond in time, Interface issues and lack of coordination were identified as most significant attributes of subcontractor disputes in order. Bespoke and incomplete contracts have been ranked as the highest significant attribute of subcontractor disputes in Sri Lankan construction industry. Risks and uncertainties were ranked as lowest significant attribute in causing subcontractor disputes.

### 4.7 Appropriateness of Commercial Mediation as an ADR Mechanism to Solve the Subcontractor Disputes.

The final objective is achieved through a descriptive analysis of quantitative data, and it was only carried for the above identified significant factors. Accordingly, the short-listed dispute attributes were evaluated against the identified attributes of commercial mediation to assess, the likelihood of appropriateness of the mediation towards solving sub-contractor disputes. This was done through a questionnaire survey and subsequent analysis of the responses.

Following notations were used for the easy referral in Figure 1

Attributes of commercial mediation,

- M1 – Ability to resolve disputes quickly
- M2 – Provide low-cost solution
- M3 – Encourage parties to settle amicably while maintaining the good relationship
- M4 – Having freedom to accept or reject the solution reached
- M5 – Voluntarily approached by the parties
- M6 – Less formal process and non-adversarial nature
- M7 – Provide an opportunity to discuss the disputes and underlying conflicts in a setting.
- M8 – Confidentiality is secured
- M9 – Having freedom to determine the procedure

Attributes of subcontractor disputes,

- D1 – Subcontractor unawareness and lack of knowledge about contract details
- D2 – Bespoke and incomplete contracts
- D3 – Liability and responsibility issues
- D4 – Failure to respond in time
- D5 – Interface issues
- D6 – Lack of coordination

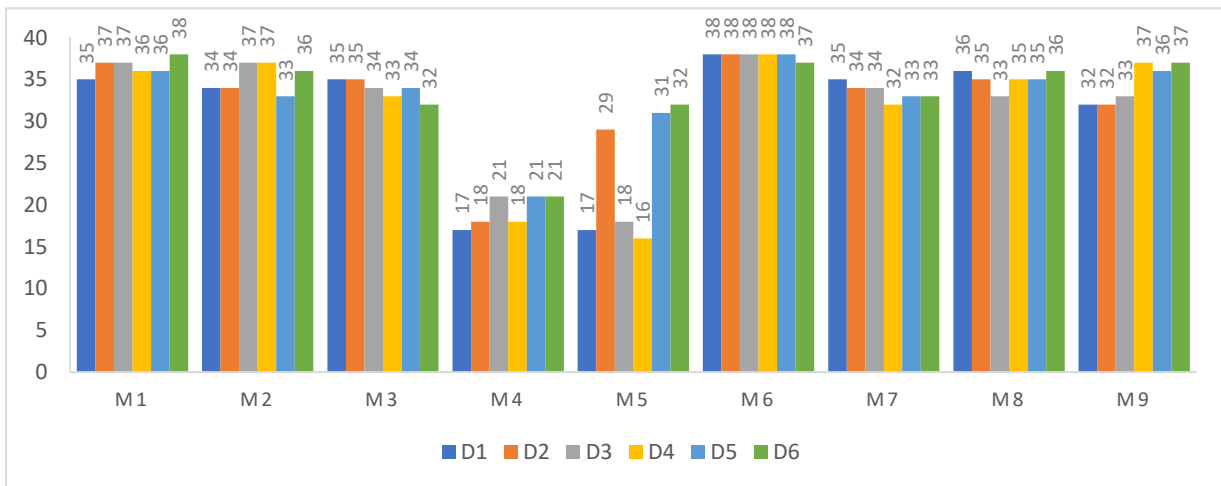


Figure 1 Agreed rate of responses

In the questionnaire survey, respondents were asked to rate their level of agreement with each mediation attribute's contribution to settling each attribute of subcontractor dispute. According to the interpretations shown in Figure 1, it is apparent that most of the attributes in mediation are appropriate in resolving subcontractor disputes incurred due to identified attributes. Majority agree that mediation attributes namely ability to resolve disputes quickly (M1), low-cost solutions (M2), encourage parties to settle amicably while maintaining the good relationship (M3), less formal process and non-adversarial nature (M6), provide an opportunity to discuss the dispute (M7) and underlying conflicts in a setting, confidentiality (M8), and freedom to determine the process (M9) are helpful in resolving all the significant attributes of subcontractor disputes. In each of these attributes, more than 84% of the respondents believe that these attributes of mediation shall be helpful in resolving subcontractor



disputes. Mediation attributes such as 'having freedom to accept or reject the solution reached' (M4) and 'voluntarily approached by the parties' (M5) has an evenly distributed opinions on how much they may help in resolving attributes of subcontractor disputes.

However, attribute 'having freedom to accept or reject the solution reached' (M4) has failed to be helpful in resolving subcontractor disputes in overall context. M4 attribute is believed to be appropriate when resolving disputes take place due to liability and responsibility issues (D3), interface issues (D5), and lack of coordination (D6). However, the majority (more than 50% of the respondents) believes that having the flexibility and freedom given to accept or reject the settlement reached is not appropriate in resolving two of the most significant attributes in subcontractor disputes namely subcontractor unawareness and lack of knowledge about contract details (D1) and bespoke and incomplete contracts (D2). Therefore statistically 'having freedom to accept or reject a solution reached' (M4) is not appropriate in resolving subcontractor disputes. Moreover, enacting a commercial mediation act can help in resolving the non-binding nature of commercial mediation by providing a legal framework for conducting and enforcing mediation settlements which eventually defunct the freedom to reject a solution reached.

More than 76% agree that mediation attribute 'voluntarily approached by the parties' (M5) is significantly helpful in resolving disputes incurred due to bespoke and incomplete contracts (D2), interface issues (D5) and lack of coordination (D6). At the same time many believe that this mediation is not appropriate in resolving disputes took place due to the subcontractor's unawareness and lack of knowledge about contract details (D1), liability and responsibility issues (D3) and failure to respond in time (D4). Further, Subcontractor unawareness and lack of knowledge about contract details (D1) can be the source itself that avoids the voluntary approach for mediation by the parties. Thus, by raising the awareness about commercial mediation among subcontractors and main contractor may improve the voluntary approach for mediation by the parties. Although, the reason why voluntary approach for mediation by the parties is not helpful in resolving subcontractor disputes take place due to Liability and responsibility issues (D3) and Failure to respond in time (D4) must be further investigated and studied. Overall, the higher percentage of agreed responses (62.7%) are noticeable compared to those who believe that M5 is not helpful in resolving subcontractor disputes. Additionally, closer to 50% of population believe that commercial mediation attribute M5 is appropriate in resolving disputes took place due to the subcontractor's unawareness and lack of knowledge about contract details, liability and responsibility issues and failure to respond in time. Thus, considering the trendline, voluntary approach in mediation can be considered as appropriate in resolving subcontractor disputes.

Furthermore, through the questionnaire survey the respondents were asked about the effectiveness of commercial mediation as an ADR method in resolving subcontractor disputes. 92% of respondents believe that mediation can be effective in resolving subcontractor disputes. Many believe that through mediation they preserve the relationship between subcontractor and main contractor. Subcontractor & main contractor relationship is important for a subcontractor to continue the work and for their future line of business. Compared to other ADR methods commercial mediation is a constructive ADR process. It enables direct communication between parties. Moreover, most of the respondents prefer it due to its cost-effective solutions. It enables to investigate the dispute from subcontractor's perspective as well. Remaining 8% of the respondents carry a different opinion from the rest. They believe that despite the attractive attributes of mediation, subcontractor's lack of awareness about mediation makes it difficult to initiate mediation when disputes take place. As commercial mediation is voluntarily approached by the parties, it becomes difficult to use it in subcontractor disputes in Sri Lankan construction industry. Some does not prefer mediation as it does not provide binding decisions. Therefore, the inquisitorialness of the mediation could have been utilized to solve all most every significant attribute of sub-contractor disputes. Though 'having freedom to accept or reject the solution reached' and 'voluntarily approached by the parties' recorded the least possibility of solving the subcontractor attributes, the most probable mediation attribute of 'less formal process and non-adversarial process' would still work on solving disputes as it indirectly shadows the party autonomy principle in behind. Furthermore, these research findings illustrated that all the attributes of subcontractor disputes attributes within a particular mediation attribute follow the same pattern either it represents a positive or negative tendency.

## 5 CONCLUSION AND RECOMENDATIONS

This research study was conducted to determine the commercial mediation as an alternative dispute resolution method for subcontractor disputes. The first objective of the research was to review unique attributes of commercial mediation. Total of 9 attributes of commercial mediation were identified; The ability to resolve disputes quickly, Provide low-cost solutions, Encourage parties to settle amicably while maintaining a good relationship, Having freedom to accept or reject the solution reached, Voluntarily approached by the parties, less formal process and non-adversarial nature, Provide an opportunity to discuss the dispute and underlying conflicts in a setting, Secured confidentiality and having freedom to determine the procedure.

Payment related disputes, Bond related disputes, Site safety, Contractual issues, Design, Delays, Workmanship, Poor communication, Interface problems, Warranty issues, Testing and commissioning and Bid shopping were identified as the common disputes relating to construction subcontracting which is the second objective in this research study.

Third objective was to identify common and unique attributes of disputes in construction subcontract. As a result, total of 11 attributes were identified namely subcontractor unawareness and lack of knowledge about the contract details, bespoke and incomplete contracts, liability and responsibility issues, employer / main Contractor / subcontractor ignorance, failure to respond in time, main contractor dominance over subcontractor in Sri Lanka, risks and uncertainties, subcontractor/main contractor faults and incapacibilities, lack of communication, interface issues.

In conclusion, 8 out of the 9 attributes of commercial mediation namely; The ability to resolve disputes quickly, Provide low-cost solutions, Encourage parties to settle amicably while maintaining a good relationship, Voluntarily approached by the parties, Less formal process and non-adversarial nature, Provide an opportunity to discuss the dispute and underlying conflicts in a setting, Secured confidentiality and Having freedom to determine the procedure were determined as appropriate in resolving subcontractor disputes. But 'having freedom to accept or reject the solution reached' was determined as not that appropriate in resolving subcontractor disputes. That's because, non-bindingness of the final decision would cause absolute loss in all the time spent, money and other resources during entire mediation journey, owing to dismiss of a conclusive decision. Consequently, it would abandon all attempts at using the ADR procedure and return to the original commencement. Howbeit, as 8 out of 9 (majority) identified attributes of mediation were determined as appropriate in resolving subcontractor disputes which resulting in the achievement of fourth and final objective. However, it is still can be addressed by the enactment of an act on commercial mediation through government or any other authorized legal institutes to cease the renege the set decision. Thus considering 92% of positive respondents' belief, the mediation can be effective in resolving subcontractor disputes. It is conclusive that commercial mediation can be utilized as an appropriate ADR method for subcontractor disputes in Sri Lanka. Likely, it is unfortunate to lose the right of solving subcontractor disputes via mediation with a such loophole. Hence, this research suggests deploying commercial mediation as sub-contractor dispute resolution method while advocating the regularity bodies to endorse the mentioned escape clause.

Accordingly, it is important for the stakeholders including the regulatory authorities, professionals, general contractors, and subcontractors to recognize the mediation as an appropriate ADR method in subcontractor disputes and the importance of commercial mediation compared to other ADR methods. Further, it is vital to popularize the commercial mediation while training the commercial mediators to gain proper recognition to improve the confidence of disputing parties in selecting the mediation as the ADR method. This research was limited to subcontractor disputes in Sri Lanka and future research are recommended for different domains around world.

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