

**EVALUATING THE SUCCESS LEVEL OF DESIRED
OUTCOMES OF ALTERNATIVE DISPUTE
RESOLUTION METHODS IN BUILDING PROJECTS IN
SRI LANKA**

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(179160B)

Degree of Master of Science in Construction Law and Dispute
Resolution

Department of Building Economics

University of Moratuwa

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DECLARATION

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Evaluating the Success Level of Desired Outcomes of Alternative Dispute Resolution Methods in Building Projects in Sri Lanka

The success or failure of dispute resolution depends comprehensively on implementing a mechanism to resolve the particular dispute while having a sound understanding of the ideologies and features of each dispute resolution method. This document reported a study on the features of both traditional and Alternative Dispute Resolution mechanisms including litigation, negotiation, mediation, adjudication, arbitration and hybrid methods. Even though, the topic Alternative Dispute Resolution in construction industry has been rapidly addressed, the actual scenario of achieving desired outcomes by using Alternative Dispute Resolution for resolving construction disputes has not been discussed sufficiently.

The aim of this research was to evaluate the success level of using Alternative Dispute Resolution methods to resolve disputes in building projects in Sri Lanka by assessing the level of achieving desired outcomes of Alternative Dispute Resolution (ADR). The research employed a mixed research approach entailing semi-structured interviews as the preliminary stage and case studies as the following stage. Subsequently, manual content analysis and cognitive mapping were used to capture and map the major findings from the interviews and case studies.

Results of the analysis elicited that there are five highly desired outcomes of using ADR hence those were evaluated under each case study to review the achievement level. Accordingly, the analysis evident that the parties would not get desired outcomes of ADR as expected and the research has identified six main reasons for this cause. Finally, recommendations were provided to enhance the level of achieving desired outcomes of using ADR by minimizing the loop holes identified in case study findings.

Key Words: *Alternative Dispute Resolution, desired outcomes, level of achieving*

*I dedicate this piece of work
to my beloved family
members.....*

ACKNOWLEDGEMENT

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Gamage I.S.

March 2020

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LIST OF ABBREVIATIONS

ADR – Alternative Dispute Resolution

CIDA – Construction Industry Development Authority

DRB or DAB - Dispute Review Board or Dispute Adjudication Board

FIDIC- The International Federation of Consulting Engineers

JCT - Joint Contracts Tribunal

CHAPTER ONE: INTRODUCTION

1.1 Background

Construction field is a complicated and competitive set out wherein stakeholders with diverse perspectives, capacities, tiers of understanding and experiences tends to work collectively (Cakmak & Cakmak, 2014). Different types of participants representing the roles of employers, contractors, consultants, suppliers have their own interests within the industry which are often opposing and competing in nature. One of the fine examples which represents this separation of interest is the variance in commercial intentions of the main parties to the Contract (Rajoo, 1999). As a result of having various goals and values among different parties involved in a construction project, conflicts become apparent (Liung, Liu & Ng, 2005).

In addition, as highlighted in Cheung and Yiu (2006) many construction projects are long term investments and therefore, foreseeing and planning for every incident may be impossible. Similarly, McCallum (2000) mentions that as many details are indefinite at the start of the project, there can be negative consequences if an unexpected incident occurred. Absence of capacity to survey perils could achieve problems later (Acharya, Lee & Im 2006). According to Fenn, Love and Speck (1997) conflicts arise when there is an incompatibility of interest. If contracting parties fail to resolve a conflict at initial level it becomes a dispute (Chong & Zin, 2012). According to She (2011) when there is a doubtful rejection for a claim made by one party from the determining party there will be a possibility to arise a dispute between parties.

This procedure is well explained in Figure 1.1. As mentioned in Fenn et al. (1997) conflict and dispute are having two separate representations. Conflicts exists any place there is an inconsistency of comforts which can be overseen and whereas, disputes refer to distinct judicial issues which require resolution using a proper technique (Barrie & Paulson, 1992).

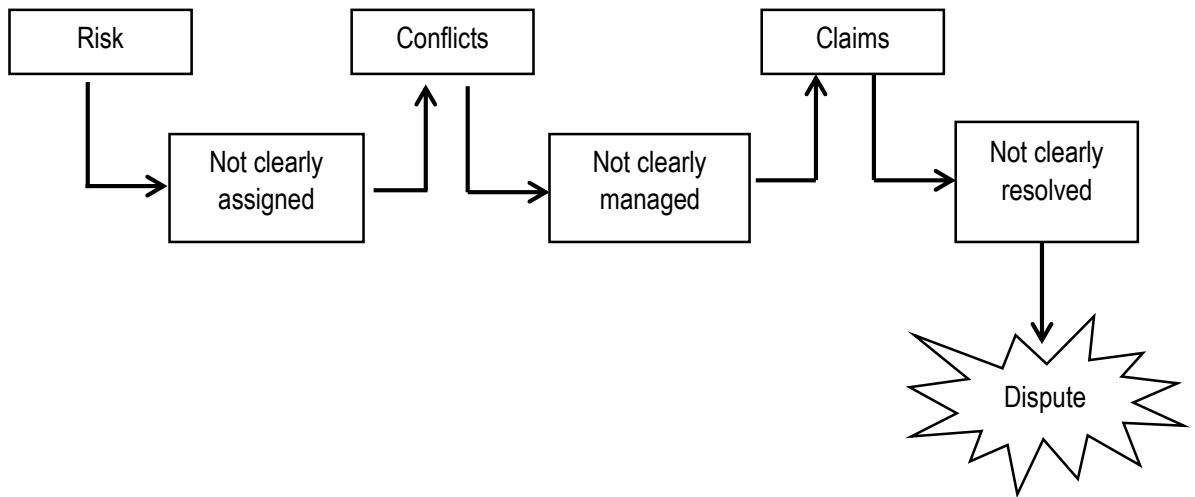


Figure 1.1. Variety of Risk, conflict, claim and dispute

Source: Acharya et al. (2006).

Many disagreements were resolved at the initial stage within site premises through a discussion between the representatives of both parties in the early days of construction (Treacy, 1995). As nowadays disputes are unavoidable in the construction projects, a proper method to resolve those is paramount important (Abenayake & Weddikara, 2012). If there is no proper mechanism to handle disputes, it will result in project delays, claims, litigation processes and ultimately badly affected business relationships (Cheung, Suen & Lam, 2002). Across time, however, the construction sector has become an ironic leader in both dispute occurrence and resolution mechanisms (George et al., 2007).

Any kind of dispute resolution mechanism shall be based on justice whereas fairness and impartiality are the key requirements (Goldfayl, 2004). Common methods practicing can be divided into three categories as intentional negotiations between parties, third party assisted methods and adversarial approaches such as arbitration and litigation (Sprague, as cited in She, 2011).

Apart from arbitration and litigation which are governed by statutory provisions, majority of dispute resolution methods preserves the privacy between parties (Cheung, 1999; Brown, Cervenak & Fairman, 1996). However, construction sector moved more towards Alternative Dispute Resolution (ADR) methods due to the dissatisfaction on litigation due to its high cost and time involvement, effects on relationship and less privacy (Danuri, Ishan, Mustaffa & Jaafar, 2012).

Similarly, as stated by Brooker and Lavers (2010) time and cost efficiency over the litigation is the most common reason to move towards ADR methods. Moreover, the heading of Alternative Dispute Resolution covers the broad spectrum of methods which avoids unnecessary time and expenses associated with litigation (Thomsan, 1995).

At the time of preparation of contracts, adequate attention should be paid to the dispute resolution provisions to prevent subsequent expensive, time-consuming as well as frustrating and unsuccessful dispute resolution procedures (Gould, 2004). Similarly, it is urged to consider about the features of each and every dispute resolution method when Alternative Dispute Resolution is decided to use for resolving disputes in construction projects. As stated by Brooker and Lavers (2010), parties expect benefits over litigation when they are using ADR to resolve disputes. In other words, the benefits which parties expect to receive can be recognised as desired outcomes of ADR. According to Cheung et al. (2002), parties may not achieve these desired outcomes of using ADR for dispute resolution due to numerous reasons. However, Cheung et al. (2002) further states that, the parties shall stretch their attention towards achieving these desired outcomes which ultimately affects the level of success of using ADR.

1.2 Problem Statement

According to Orlando (2016), the intention of the dispute resolution is to resolve the dispute as effectively and efficiently as possible, taking into account the essence of the dispute as well as the parties' purposes, needs and interests. Similarly, Bibby (2018) states that the most suitable type of ADR for a particular issue depends on the objectives of the parties.

However, as per Cheung et al. (2002), there is a frequent question on the level of success in resolving construction disputes via Alternative Dispute Resolution. Although the dispute resolution topic has been commonly debated and heavily examined, there have been only a few studies on this issue (Cheung et al., 2002). Similarly, Goldberg (1992 as cited in Cheung et al., 2002), also stated that

supplementary research studies are required to educate the construction industry practitioners as to how to achieve the desired outcomes of using ADR.

Therefore, this study meant to fill the aforementioned research gap in the construction industry by providing recommendations to achieve the desired outcomes of selecting ADR to resolve disputes in building projects in Sri Lanka.

1.3 Aim and Objectives

Aim: The aim of the study was to evaluate the success level of using Alternative Dispute Resolution methods to resolve disputes in building projects in Sri Lanka.

Objectives: With the intention of attaining aforementioned aim, four objectives had been formulated

- To review the available Alternative Dispute Resolution methods in the construction industry with their advantages and disadvantages
- To critically evaluate the factors influencing the selection of Alternative Dispute Resolution for construction projects in Sri Lanka
- To investigate the success level of highly influencing factors in terms of their respective desired outcomes of using Alternative Dispute Resolution in building projects in Sri Lanka
- To propose recommendations to enhance the effective usage of Alternative Dispute Resolution in building projects in Sri Lanka

1.4 Scope and Limitations

In most countries there is an increasing tendency towards using ADR methods as an alternative to the litigation process (Jones, 2006). As a result of that many hybrid versions of ADR methods such as Med Arb, Arb Med, Mini Trials, Early Neutral Evaluation, etc. have been introduced to enhance the effectiveness of using ADR. However, in Sri Lanka, ADR methods are limited to primary methods like mediation, adjudication and arbitration. As hybrid methods are hardly used in Sri Lanka, there

are no sufficient primary data to evaluate the level of achieving desired outcomes by using those ADR methods. Hence, this research was limited to situations where primary ADR methods are practicing for the purpose of dispute resolution.

In addition, the objective 3 and 4 of the research was limited only for building construction projects as some ADR practices of infrastructure projects are different to building projects. Therefore, the researcher identified that there can be complexities while appraising both building and infrastructure ventures concurrently. Furthermore, this selection also depended on the high frequency level of disputes in building projects than in infrastructure projects.

1.5 Methodology

As per the established aim and objectives, mixed method, predominantly qualitative approach was adopted as the research approach to carry out this research.

At the initial stage, the researcher carried out an extensive literature review through books, journals and other articles covering the areas of study including construction dispute resolution, available Alternative Dispute Resolution methods in the construction industry, their plusses and minuses and common factors influencing the selection of Alternative Dispute Resolution.

Data collection process was initialized with four (4) expert interviews with specialists who have greater level of awareness and know-how in the area of Alternative Dispute Resolution in order to obtain a confirmation about the literature findings, critically evaluate the factors influencing the selection of Alternative Dispute Resolution for construction projects and to develop the primary data collection guideline for case studies.

Furthermore, six (6) in-depth case studies were performed for evaluating the level of achieving the desired outcomes of using ADR. Data were collected from the case studies using semi structured interviews and document review.

Content analysis was the qualitative data analysis method used for analyse the collected data, and recommendations were given to enhance the level of achievement of desired outcomes of using ADR in Sri Lankan construction projects.

1.6 Chapter Breakdown

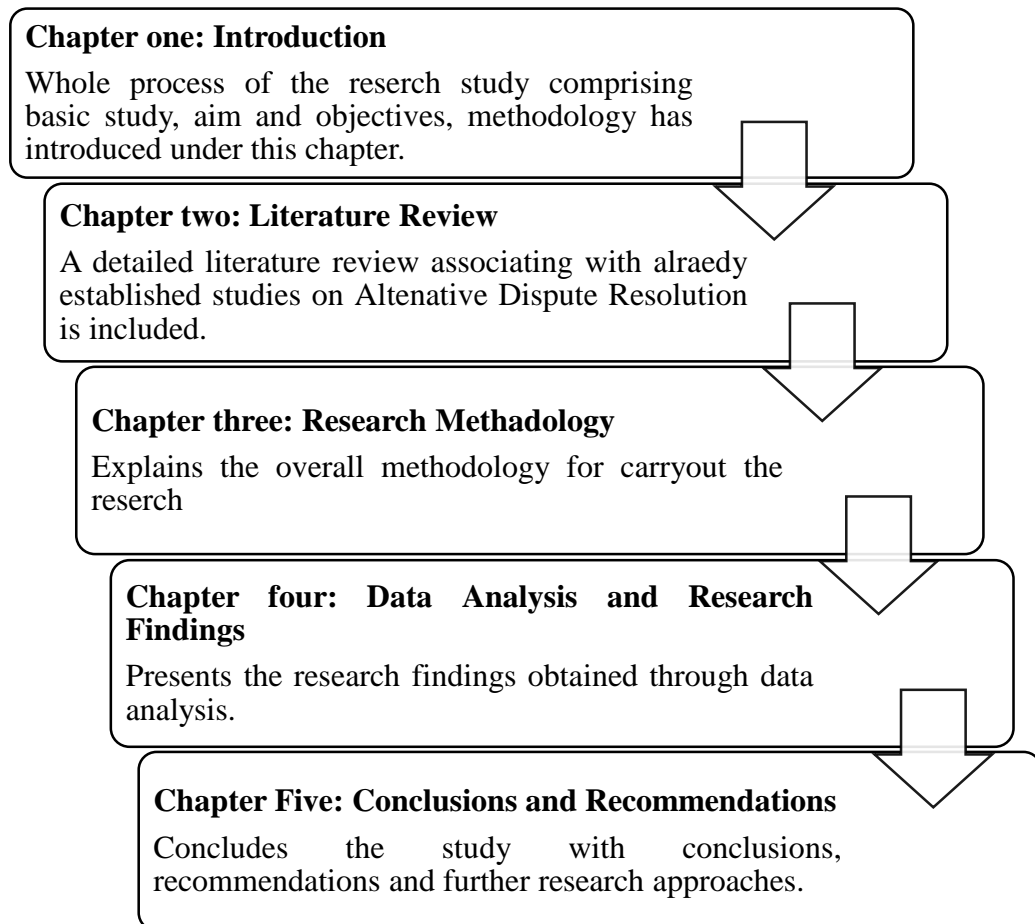


Figure 1.2. Chapter breakdown

CHAPTER TWO: LITERATURE SYNTHESIS

2.1 Introduction

This chapter syndicates the information already available related to the subject area of the research. Since, this research is focused on evaluating the success level of using Alternative Dispute Resolution in resolving construction disputes, this chapter initially discusses about the way towards disputes and the main causes of such disputes. Thereafter, the identification of available ADR methods are described and their advantages and disadvantages are also highlighted. Finally, factors influencing the use of ADR methods to resolve construction disputes have been investigated through the available literature sources and their respective desired outcomes are identified. Thus, this chapter has fulfilled the objective one and part of the objective two while developing a steady platform for continue with the research further.

2.2 Construction disputes

Construction is a risky investment as in any other business (Mulolo, Alinaitwe & Mwakali, 2015). Construction ventures have been observed to create a high degree of uncertainty and complexity and thus, very few construction projects do not give rise to disputes during execution (Cheung, 1999). As mentioned in Law Teacher (2013a) disputes are unavoidable in the construction environment and dispute-free construction is very uncommon. Law Teacher (2013a) further emphasise that the main attributes for such disputed environment are the split and complex nature of construction. Disputes are still dominant in construction projects though organisations have made efforts to enlarge their performance by means of adopting new technology and work patterns set in concepts for example supply chain management, lean production, and knowledge management,. (Love, Davis, Ellis & Cheung, 2010).

2.2.1 Association between conflicts, claims and disputes

According to previous studies, Cheung and Yiu (2006) states that disputes arise mainly due to improbable anticipation, lack of team spirit and confusions. Ndekugri and Russell (2006) and, Reid and Ellis (2007) depict that, neither controversy remains until there is a dismissal of a demand for damages incurred by any party to the contract. Most of the studies collectively recommends the main cause of dispute is unresolved conflicts (Cheung & Yiu, 2006).

The subject of distinguishing disputes, claims, and conflicts is still remain questionable though many authorities in relation with construction have laid down basic guidelines (Kumaraswamy, 1997). There is a sound relationship among Conflicts, Claims and disputes. For the purpose of demonstrating this matter, Kumaraswamy (1997) has developed a useful graphic which shows in Figure 2.1. It shows how conflicts become the foundation for both disputes and claims. Besides, it displays that claims can also reach the level of disputes whenever there is no settlement arose for claims. Further, where non claimable events converted into conflicts those will directly become disputes even without a presence of a claim. As a final point, it can determine that the root cause for both claims and disputes is conflicts.

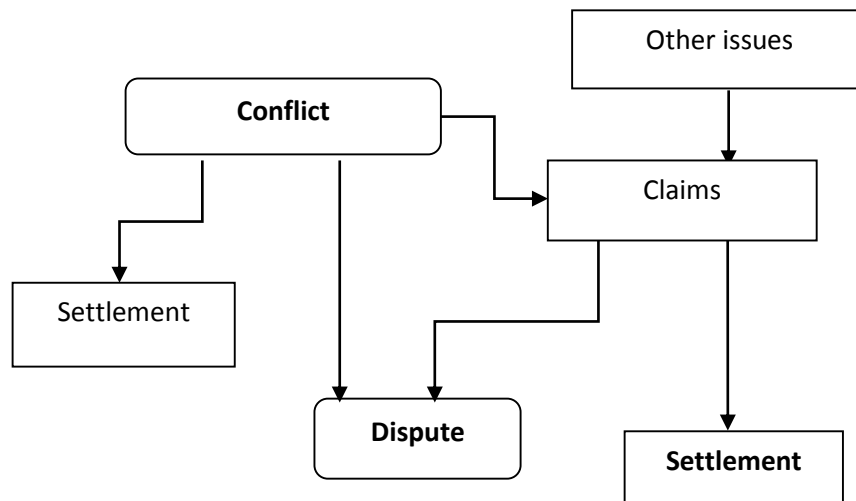


Figure.2.1. Conflicts, Claims and Disputes

Source: Kumaraswamy, (1997)

2.2.2 Common causes of conflicts in the construction industry

According to the relationship established in the previous sub section, disputes are the unresolved conflicts aroused in construction projects. Therefore, it is beneficial to have the knowledge regarding factors contributing to create conflicts in the construction industry.

Considerable work has been conducted with the intention of recognising the basic grounds of disputes in the construction sector (Cakmak & Cakmak, 2014). Table 2.1 summarises the findings of some research studies done in this area.

Table 2.1. Common causes of conflicts

Source	Causes of conflicts
Jahren and Dammeier (1990)	<ol style="list-style-type: none">(1) Changed conditions(2) Defective specifications(3) Subsurface problems(4) Matters related to payments(5) Matters related to time(6) Errors in bid(7) Less communication
Semple, Hartman and Jergaes (1994)	<ol style="list-style-type: none">(1) Type of contract(2) Method of payment(3) Origin of the Contract - sector(4) Duration of Contract(5) Delay events encountered(6) Value of the original work(7) Compensation requested from the claim
Acharya et al. (2006) - based on project participants' activities	<ol style="list-style-type: none">(1) Owner induced conflicts,(2) Consultant induced conflicts,(3) Contractor induced conflicts,(4) Third parties induced conflicts,(5) Other project matter induced conflicts

Cheung and Yiu (2006)	<ul style="list-style-type: none"> (1) Intention of the agreement; (2) Payment matters; (3) Physical execution of work at site; (4) Time matters; (5) Issues in completion stage (6) Tort related.
Cakmak and Cakmak (2014)	<ul style="list-style-type: none"> (1) Employer related (2) Contractor related (3) Design related (4) Contract related (5) Human behaviour related (6) Project related (7) External factors

Although studies have focussed on numerous causes of conflicts, by looking at above findings it is very clear that there is a certain level of cohesion in the findings. Majority of the researchers have identified issues related to the contract document, payment and time as conflict generating grounds in the construction industry. As any construction project is based on time, cost, quality parameters it is agreeable to label those three factors as the most common causes of construction conflicts. Furthermore, an average level of identification has been given to a few other causes of conflicts prevailing in the construction industry namely, design related issues, construction related issues and external issues. Not as other industries, the construction industry is very much relied on external sources and have many forward and backward relationships with many industries which may lead to conflicts if there is an unbalance in those external sources. Similarly, as the unpredicted nature there can be construction defects and design errors when it comes to the real scenario and those may also lead the path for a conflict in the project. Therefore, based on the above judgements following six factors can be listed as the highly rated conflict grounds in the construction industry.

- 1) Time related issues
- 2) Payment related issues
- 3) Contract related issues

- 4) Design related issues
- 5) Construction related issues
- 6) External factors

2.3 Construction dispute resolution

Serious disputes over construction contracts have become progressively common in construction projects during the past two decades (Jannadia, Assaf, Bubshait & Naji, 2000). Ekhaton (2016) considers occurrence of disputes as an integral part of human relationships. Furthermore, Ekhaton (2016) emphasises that if an individual or organisation feels that their particular goal or objective attainment is blocked, it will lead to conflicts and ultimately will root up to an existence of disputes if not managed in a healthy manner. Khahro and Ali (2015) states that conflicts are deeply embedded in the construction industry and it is facing to a tremendous growth in conflicts. Cheung and Pang (2013) has identified disputes as one of the epidemics of the construction industry. Disputes can be considered as one among the governing factors which prevent a project from being successfully completed (Cakmak & Cakmak, 2014).

Therefore, identifying the causes of disputes and tactics for prevention and management of disputes are very important for the well persistence of construction industry.

According to Jannadia et al. (2000), designers, contractors and owners usually tends to settle conflicts in simple nature, but complex disputes cannot settle as such and sometimes they delay the project as there shall be a intervention of legal processes. Jannadia et al. (2000) further stated that if the parties cannot reach to an agreement themselves, there will be expensive, inefficient legal procedures which affect all participants. Despite the fact that dispute resolutions have been known to construction industry for many years, industry is still unhappy with the efficacy of any of these procedures. Some commented that the dispute resolution procedures has no legal binding nature and the few others complained about the cost and time issues (Law Teacher, 2013 b)

Gorton (1992) identifies dispute resolution methods which are currently using in the construction industry as in Figure 2.2. Majority these methods are private except arbitration and litigation which are controlled statutory.

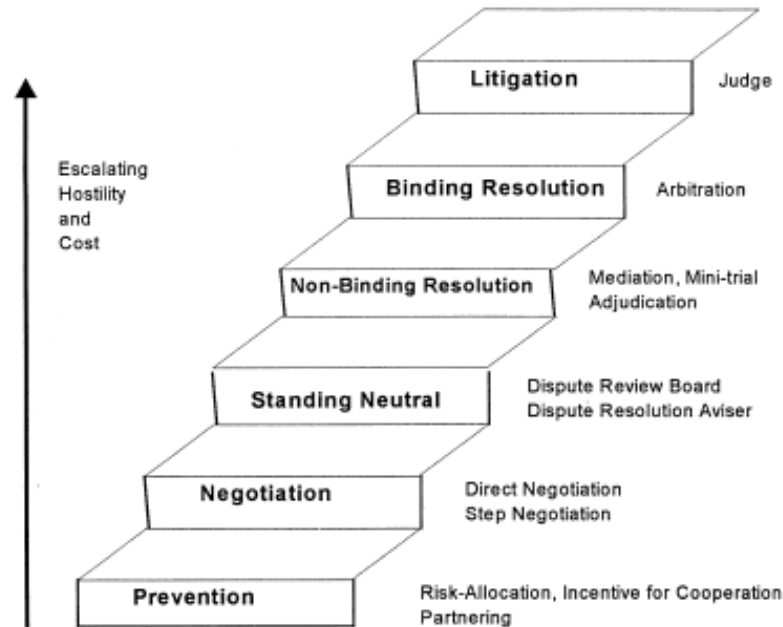


Figure 2.2. Construction Dispute Resolution Steps
Source: Adapted from Gorton (1992)

Moreover, this stair step model illustrates the relationship among dispute resolution methods and the level of legality and cost growth. The stepped model assist in understanding the increasing levels of animosity and the costs incurred with various forms of dispute resolution.

2.3.1 Litigation – Traditional way of dispute resolution

Litigation considers as the common and traditional dispute resolution mechanism used throughout the world (Astor and Chinkin, as cited in Ranjithkumar, 2005). Most experts believe that for the purpose of settling the construction related disputes litigation is not a sufficient and appropriate tool (Harmon, 2003). Furthermore, Harmon (2003) explains that the parties’ intention to preserve their business relationships as the way of securing future businesses which will be destroyed when going for litigation and the unique nature in construction disputes which cannot be

addressed by a general court can be the main reasons for the aforementioned insufficiency and inappropriateness. In general, Contractors' nature is to avoid litigation because it can reduce or eliminate job opportunities and increase disruptions to decent working relations between participants (Stipanowich, as cited in Harmon, 2003). Similarly, Wang (2000) mentions the fact that it was thought that too much emphasis was placed on the rights and entitlements of the parties, and too little on consideration for the business relations of the parties, hence litigation cannot get the interest of industry professionals for resolving disputes.

According to Abeynayake (2007) disadvantages of the litigation process can be listed as below mentioned.

- Lengthy hearings
- Comparatively high cost
- Wasting of time
- Impacts on commercial relationships
- Impossibility to enforce the judgement in some occasions
- Use of thoughtful delaying tactics by parties
- Not having party autonomy

Consequently, traditional processes like litigation were identified as less favourable methods in nowadays, there is a high tendency of developing Alternative Dispute Resolution (ADR) methods in the industry (Zyl, Verster & Ramabodu, n.d.). Moreover, according to Wedikkara (2003) business relationships among the parties involved in litigation processes become adversarial and therefore, the industry participants enthusiastically embraced the new phenomenon of Alternative Dispute Resolution. The main purposes of ADR mechanisms are to overcome the disadvantages of litigation process and to have the least intemperance of independent third party to resolve disputes (Harmon 2003). The upcoming section has discussed ADR methods used in the construction industry.

2.4 Alternative Dispute Resolution (ADR)

ADR is a mechanism internationally recognized as a means of contractual dispute resolution without engaging with litigation; and therefore it is reliant on the presence of an agreement between the parties (Treacy 1995). Similarly, Ashworth (2005) mentions that Alternative Dispute Resolution is aimed at resolving disputes through a non-adversarial path instead of looking in to the adversarial paths. Moonkin (1998) also has similar view and mentions that legal disputes can be solved outside the courts via using a set of practices coming under ADR.

Many claim that ADR results are fairer than litigation outcomes; however, this assumption is interpretable and may not be correct (Harmon 2003). Voluntariness, third party intemperance, degree of formality, way of carrying out proceedings, outcome, and privacy are some of main attributes of Alternative Dispute Resolution as identified in Goldberg et al. (as cited in Cheung et al., 2002).

Moreover, Cheung et al. (2002) concentrates on attributes such as impartiality, consensus, and business relationships which represents social and human aspects.

There is a wide spectrum of methods coming under the term ADR, which ranges from negotiation to arbitration. Those ADR methods can be categorized into two forms as formal binding methods and informal non-binding methods, where negotiation, mediation, minitrials are categorized as non-binding methods and arbitration as a binding method (Harmon, 2003). However, arbitration may either be binding or nonbinding, where in binding arbitration the third party's decision must be followed by the disputants even though they disagree with the same and in non-binding arbitration parties may sometimes reject the decision of the third party (Brown et al. 1996). Widely used ADR methods are mediation, conciliation, adjudication and arbitration (Ilter & Dikbas, 2008).

2.4.1 Available ADR methods in construction industry

The construction industry has taken measures in the past decade to prevent lawsuits and manage conflicts by designing and using numerous ADR methods that can be imposed almost at any point of a construction project.

As per the Meadow (2015) ADR methods are classified into two categories as;

- 1) Primary Processes
- 2) Hybrid or secondary processes

Further, Meadow (2015) elaborates that ‘primary’ processes consist of dispute avoidance methods, resolving through self-negotiations, and third party facilitated negotiation approaches (mediation) or third party decision based approaches (adjudication, arbitration) whereas the combination of one or more of the primary process included in a ‘Hybrid’ or ‘secondary’ process.

2.4.1.1 Negotiation

Negotiation can use either as dispute prevention or dispute resolution method. If there is an opportunity to practise from the beginning of a construction process there may be less disputes in the project. However, in this research the researcher has focused its role as a dispute resolution method. Individuals directly involved in the conflict to pursue a solution of their own is a prime requirement of negotiation. Basically, no involvement of third party can be seen in negotiation.

Negotiation is the least adversarial approach which is fast and cheap (Yousefi, Higez & Hegal, 2010). According to Chong and Zin (2012) it is a least expensive, speedy, voluntary unstructured process, which can perceive the working relationships of parties’ involved in the process. Jones (2006) highlights that negotiation is a powerful and often successful method for dispute resolution but it depends on the external incentive of each party to settle disputes. In another point of view, Cheeks (2003) states that the initial levels of negotiation will be succeeded where there is a relatively low level of disparity and the volume of question is relatively small. Negotiations are also much more likely to bring about a settlement even though failure to negotiate has serious consequences for both parties (Jones, 2006).

However, Groton (1997) has identified three major obstacles of successful negotiations:

1. Hard personalities and the ego of the parties
2. Project constraints and work pressure
3. The attitude towards negotiation.

As the construction projects and its anticipated nature differs time to time throughout the project duration, negotiations are not always workable for achieving a settlement and thus, requirement for more formal ADR methods will emerge (Chong & Zin, 2012).

2.4.1.2 Mediation

While mediation means different things for different industries, construction industry usually calls it a procedure where there is a process of assisting disputant parties by an unbiased third party try to reach to an agreement mutually. It can be done either by carrying out a less formal inquiry or by giving a non-binding opinion (Vester, 2013: Turker, 2005). Furthermore, Chau (2007) defines that “Mediation is a voluntary, informal, private and non-binding dispute resolution process in which an impartial and independent person called a mediator helps parties attempt to settle by avoiding time-consuming and expensive litigation or arbitration”(p.144). According to Harmon (2003), mediation process always encourages parties to speak on their case and it is therefore considered as paramount important feature of mediation. Similarly, Zyl et al. (n.d) stated that there is a self-representing of cases by parties without assistance of the legal professionals. However, availability of considerable understanding on the case facts shall be with the mediator shall provide equal opportunity to each party to present their case. Decision of mediation empowers parties by enabling them to enter into judicial writ or it allows the parties to succeed in agreements that take important facts under consideration which are often ignored in judgment making (Rosenberg, 2005).

According to Jones (2006) the extent of third party participation is the thing what is significant in mediation. Jones (2006) identifies the third party's role in mediation as to create an atmosphere where each party honor the concerns of other party which will ultimately resulted in successful negotiation. Similarly, in the view point of Thaker (2014), mediation is a mechanism in which the parties themselves control it and the

mediator serves as a facilitator only to help the parties in achieving a settlement point of the dispute. It needs to be emphasised that the mediator neither make decisions or impose his interpretation on both the sides. In a nutshell it can be stated that there is no power for mediator to dictate his decision over the case.

According to Thaker (2014) followings are the key advantages of the Mediation;

- Win – win situation
- Decision is parties own agreement
- Quick and less expensive
- Parties' relationships are preserved
- Maintain confidentiality.

However, as mentioned by Cheeks (2003) if the parties are unable to negotiate with each other on their own terms, they must refer their dispute to a tribunal that imposes a binding judgment like adjudication or arbitration.

2.4.1.3 Adjudication

Adjudication is an ADR process in which parties expecting an award declared by the neutral and objective third party whom they have referred the dispute (Ranasinghe & Korale, 2011).The decision may either be temporary binding which the final determination is projected from further step or become final and binding when the dispute is not referred to another process within the specific period (Simmonds, 2003). It is designed to provide a quick determination that allows work on site to continue without interruption (Kennady, 2008).Generally, two types of adjudication methods are practiced namely statutory and contractual (Abeynayake & Weddikkara 2012).

Contractual Adjudication

Contractual adjudication considered a conditional precedent procedure for the settlement of disputes before going to arbitration where the decision of such is followed by agreement between two parties (Hin, 2011). As per Dancaster (2008) and Kennady (2006) adjudication clauses exist as a non-compulsory method for dispute resolution in contract documents published in early periods. Since adjudication is recommended as an accelerated method of enforcing payment rights, it was first

instance introduced into the construction procedure in the form of a contract. New Civil Engineering Contracts and JCT (Joint Contracts Tribunal) initially used the adjudication process and later FIDIC Conditions of Contract 1999 edition introduced the adjudication provision in their contract (Ranasinghe & Korale, 2011). Based on the terms of the contract, the decision of the adjudicator is permanently binding on the parties until such time as arbitration, litigation or settlement, depending on the contract, eventually decides the dispute (Entwistle, 2010).

Statutory Adjudication

Statutory adjudication is one of the most innovative development of construction law in 20th century (Munaaim & Caper, 2013). Hin (2011) mentions that in statutory adjudication it has provided a right to adjudicate through a legislative provision available within an act. It was introduced in United Kingdom in principal due to late payments issue in the construction Industry. As stated in Chan (2006) statutory adjudication emergent in world with the intention of introducing a fast track dispute resolution process in case of late payment issues.

This separate adjudication provision is encompassed to the legislation called “Security of Payment Legislation”.

2.4.1.4 Arbitration

Arbitration may be a binding, non-judicial, and personal means of settling disputes supported an exact agreement by the parties involved in an exceedingly transaction (Malinda, 2012). An arbitration agreement is an agreement which is there to submit disputes for the final and binding resolution expected from a third party (Jones, 2006). In fact, it is some way a private alternative to the dispute resolution in judicial system (Jones, 2006).

Arbitration results in a win or lose condition and is not based on any precedents (Bekele, 2005). The decision of an arbitrator is legally binding and unable to be appealed on court even for the errors of facts or law unless fraud or misconduct by the arbitrator.

Domestic awards are enforceable as per the view of Jones (2006), through an appeal to the court under the summary process provided in the *Commercial Arbitration Act* and awards are readily enforceable under the *New York Convention* in international arbitration proceedings.

According to Turker (2005) the inability of arbitration decisions to be appealed can be a source of obstruction to it as a legal practices. Arbitration is a procedure established by an act of law in some countries and enacted by the parties through mutual agreement, specifying that they will bring any dispute which may occur between them to the impartial judgment of a third party selected in to their discretion and the award by that independent person is expected to be final and binding (Vester, 2013). As mentioned in Vester (2013), it is a resolution procedure where a legally binding and enforceable judgement on both parties will be established through a third party evaluation of the evidence in the case.

Thaker (2014) further mentions that, arbitration can be either intentional or obligatory. Obligatory arbitration emerges only through a contract between the parties in which they agree to refer all current or potential conflicts to arbitration deprived of knowing exactly what particular disputes will arise.

As per the previous researches, the advantages of Arbitration can be summarised as follows;

- a) Less time consuming compared to litigation
- b) Can be less expensive and extra flexible for business nature.
- c) As both arbitral proceedings and judgements are private, confidentiality may preserve.
- d) Though in court proceedings, the official language of the court automatically used for proceedings in arbitration the applicable language can be chosen.
- e) According to the arbitration legislations (in Sri Lanka act No. 11, 1995) limited grounds for appeal of an arbitral award and it cannot be set aside based on the errors in the decision but on the errors in the procedure conducted
- f) Unlike in litigation, the competent arbitrators can be chosen when the subject-matter of the dispute is highly technical

On the other hand, there are some disadvantages of the Arbitration as well, which can be summarised as follows;

- a) There may be unwanted pressures from parties to arbitrator if the selected arbitrator is not a neutral expert with the expected capacity
- b) Parties waive their rights to access the Courts if the Arbitration is mandatory and binding.
- c) Paying cost of the arbitrators is sometimes a burden to parties who is concentrating to a small dispute
- d) As there are very few grounds for appeal, decisions which are taken erroneously cannot easily be reversed
- e) Though this is a speedier process than litigation, in long cases there can be delays due to busy schedules of arbitrators
- f) Direct enforceability process of arbitration awards are not available and the party who is seeking to impose an arbitration award must have access to legal remedies to enforce such.

2.4.1.5 Hybrid ADR methods

While the above described primary procedures provide basic alternatives to dispute resolution, there are a number of ' hybrid ' dispute resolution mechanisms which provides deviated procedures to the primary procedures. As per Mnookin (1998) there can be binding decisions at the end of some of these varied mechanisms which are authorized through state law and on the other hand those can be non-binding too though they are mandated by state law depending on varies circumstances.

As identified by Meadow (2015), Table 2.2 summarises the common hybrid ADR methods practicing in the construction industry.

Table 2.2. Common Hybrid ADR methods

ADR Method	Characteristics
Med-arb	Initially, neutral third party facilitates the negotiations and later provides a decision
Minitrials	Short evidence procedures trailed by negotiations

Summary jury trials	Issue ‘advisory’ conclusions to assist negotiation, by using mock judges to hear evidence and also carried out within the formal court procedures
Early neutral evaluation	Before commence the resolution process, third party experts hear arguments and evidence and advice parties with the intention of arising to settlement or arranging further processes in resolution

Med-Arb

Med -Arb is a combination of mediation and arbitration which first uses mediation and uses arbitration in later if the dispute was not resolved under the mediation (Costello, 1996). Thomsan (1995) depicts Med-Arb as a mechanism that aims to capture the individual strengths of both mechanisms while constraining apparent weaknesses of those. Selection of a neutral third party is happening at the beginning of project to make contemporaneously binding decisions when the disputes arise. Furthermore, Thomsan (1995) argued that Med-Arb is giving high control to the parties over their dispute to manage it properly. If mediation fails in giving a solution, the parties should formulate a corresponding arbitration process which is in accordance with their business interests and existing relations.

Combination of a peacemaking process called mediation, with an accusatorial process called arbitration is the main risk factor of this mechanism (Stipanowich 2001). According to the Stipanowich (2001) the ability of the neutral third party to keep on his neutrality throughout the entire process is questionable since the confidential details exposed during the mediation may affect his decision in the arbitration.

However, if arbitration becomes necessary, Harmon (2003) mentions that the Med-Arb will be good enough for the parties to handle their dispute in a fruitful manner. Though Med – Arb is a better option to primary ADR, it has not become common as planned due to the absence of neutrals who are capable of playing dual roles.

Minitrial

Minitrial is not a mandatory mechanism to follow and simply ended up with a nonbinding decision, which is still having adversarial characteristics. Ryan (1991) mentions that a minitrial is neither a trial nor a method which compulsorily mandated in a contract. It is simply a voluntary, confidential, nonbinding settlement procedure where the counselors of each party summarises the case facts to the representatives of the opposing party.

If parties voluntarily go through a minitrial they can obtain a prediction of the result of the actual trial beforehand and thus, they can able to take a decision of whether it is required to go for dispute resolution mechanisms rather than handling the dispute in their own boundaries. Minitrials are generally held before an actual trial where all other ADR methods failed (Goodman, 1997).

Summary Jury Trial

According to Mnookin (1998) a “Summary Jury Trial” is a non-binding process which provides an opportunity to each party to present its case in abbreviated form in front of a mock-jury which is impaneled by the court. The neutral seeks to promote a mediated settlement (as a mediator) after the mock-jury makes its advisory judgment.

Early Neutral Evaluation

The process of early neutral evaluation (ENE) involves at the beginning of litigation process (Stipanowich 1996). Unless otherwise there is a contractual obligation to go for ENE, it usually commence through a court-order after few months of filing a complaint. Similar to the most of the hybrid processes this is also an informal, nonbinding method where the settlement obtained through a third party expertise who is having the knowledge of particular field of the dispute (Treacy 1995). Using ENE is aimed at preventing long litigation procedures and thereby resolve disputes sooner (Stipanowich 1996).

2.4.2 Available ADR methods in Sri Lankan construction industry

In his research study, Kavinda (2010) notes that there is a high tendency to move towards disputes in Sri Lankan construction industry because of the less consideration given to the contract documentation and contract administration works. The author further emphasised that parties may end up with a dispute due to misinterpretation and ambiguity of contract particulars. When resolving these disputes there is an increasing demand for ADR than litigation in Sri Lanka (Kavinda, 2010).

In the view point of Gunasena (2010), although there are differences in application procedures from time to time, ADR methods were practising over thousands of years in Sri Lanka and it is not a novel thing to the society. Timely, those ancient methods of dispute resolution have transformed in accordance with the modernized commercial requirements along with international conventions (Abeyaratne, 2006). As a result of that ADR in the form of Conciliation Boards (Samatha Mandalaya) were set up in 1958 in Sri Lanka to promote settlement of civil disputes out of the court system (Hardi, 2015). According to De Zylva (2006), negotiation, mediation, adjudication and arbitration can be identified as widely used and recognised ADR practices in Sri Lankan construction industry.

Kavinda (2010) defines negotiation as the most effective dispute resolution method to be used in any circumstances first. Even though negotiation is the effective method to practice Soorige and Abeynayake (2015) mentions that, arbitration and adjudication play major roles in construction dispute resolution in Sri Lanka.

The Sri Lankan Parliament passed several laws for enforcing and regulating ADR procedures (Ekanayake, 1992). The significant laws of such are the Arbitration Act No. 11 of 1995 for regulating arbitration process, Mediation Board Act No. 72 of 1988, Sri Lanka Commercial Mediation Center Act No. 44 of 2000 and Mediation Boards (special type of dispute) Act No. 21 of 2003 on mediation activities

Through the enactment of the aforementioned acts, statutory recognitions was given to most of the dispute resolution methods. However, most of these acts still promotes the amicable settlement between parties with their consent to resolve the dispute

among them and it is on the other hand recognised as a duty of the professionals involved in these procedures as the neutral third party to facilitate such settlements.

As mentioned in earlier paragraphs, there are several acts enacted on the purpose of creating a popularity towards mediation (Wimlachandra, 2007). Despite to the fact that having a statutory recognition, not having a legal enforceability to the final settlement agreement of the mediation process and less number of trained professional mediators in Sri Lanka can be considered as factors of having less demand to mediation compared to adjudication and arbitration (Wijerathna, 2006). Due to the fact that the mediators are there to merely facilitate parties to come to a settlement, still mediation is not popular as a profession in Sri Lanka and for the time being adjudicators, arbitrators and lawyers are performing the role of the mediator.

The institute for construction industry Development Authority (CIDA), through its first revised edition of Standard Bidding Document in year 2006, introduced the adjudication process as a first step towards construction dispute resolution in Sri Lankan construction industry (Gunaseena, 2010). However, in Sri Lanka, still there is no legal recognition for both adjudication and adjudicators' award. Adjudication process will be commenced as per the terms and conditions set out in the FIDIC and ICTAD conditions of contract. Therefore, unless there is an agreement between parties to execute the award, the award of adjudicator is not enforceable in law.

The statutory provision for arbitration proceedings were established in Sri Lanka by Arbitration Act No.11 of 1995. There are mainly two ways of conducting arbitration proceedings as Ad – hoc and Institutional. It is observed that, Ad-hoc arbitration is more preferred by domestic entities since it allows parties control the arbitration procedure as they desire. In institutional arbitration, there are set of rules predefined as a framework for the arbitration under each institution. 'International Chamber of Commerce', 'Institute for the Development of Commercial Law and Practice (ICLP)' and Sri Lanka National Arbitration Centre' are the three main Sri Lankan arbitral institutions which conduct arbitration proceedings.

2.5 Factors influencing the selection of ADR for construction projects

Conflicts are inherent in any business where many parties are involved. There is a high vulnerability to begin expensive, time-consuming legal procedures which severely affects all the parties if the parties cannot reach a resolution themselves. (Keruleine, Zavadskas & Turskis, 2010). ADR proponents always support the use of an investigative approach rather than an argumentative approach to resolve construction disputes (Cheung 1999). Furthermore, Cheung (1999) highlights that the ADR, by its nature, enables disputants to have flexibility in exercising control over the resolution process by tailoring the template. Nonetheless, the factors influencing the selection and use of ADRs need to be studied well in order to promote and interfere effectively in the construction sector (Lee, Yiu & Cheung, 2016).

According to Mulolo et al. (2015) factors affecting ADR's preference over traditional methods of dispute resolution were established as:

- a. Advantages of positive ADR process
- b. ADR's potential to deliver creative solutions
- c. Form of ADR proceedings
- d. Nature of the settlement agreement

Many researchers and experts have studied the qualities of ADR. York (as cited in Patel & Shah, 2014) dealt with practical issues and described time, cost, relationship preservation, enforceability, degree of party autonomy, flexibility in proceedings and confidentiality as factors that affected the parties to use ADR. In addition, David (as cited in Patel & Shah, 2014) focused on social and human issues such as impartiality, consensus, and continuing business.

According to the literature, Table 2.3 shows the findings of available key sources for factors influencing the selection of ADR procedures to resolve construction disputes.

Table 2.3. Summary of findings for factors influencing the selection of ADR processes

Key Sources	Factors influencing
Treacy (1995)	<ul style="list-style-type: none"> ▪ Time ▪ Cost ▪ Management concerns ▪ Amount of disclosure to outside ▪ Facility of early negotiations via direct communication between parties ▪ Effect to the relationships of the parties ▪ Availability of qualified experts
Cheung (1999)	<ul style="list-style-type: none"> ▪ Binding nature of the decision ▪ Cost of process ▪ Degree of privacy ▪ Party autonomy ▪ Enforceability of the decision ▪ Flexibility of the proceeding ▪ Time involvement ▪ Maintaining relationships ▪ Nature of the remedy
Cheung et al. (2002)	<ul style="list-style-type: none"> ▪ Cost ▪ Openness, Neutrality and Fairness ▪ Speed ▪ Outcome ▪ Privacy and Confidentiality ▪ Enforceability ▪ Preservation of Relationships ▪ Flexibility ▪ Nature of the remedy ▪ Degree of Control
Patel and Shah (2014)	<ul style="list-style-type: none"> ▪ Total Duration ▪ Associated cost ▪ Flexibility ▪ Confidentiality ▪ Preservation of relationships ▪ Degree of control by parties ▪ Degree of control by neutral ▪ Binding nature and enforcement ▪ Neutrality and Fairness ▪ Lawyer's influence where required ▪ Legal system: Parties want to resolve the dispute through legal system to avoid damage to someone's reputation.

According to the above findings, most of the researchers have agreed that the ADR processes should be initially based on both cost and time aspects. As stated by Patel and Shah (2014), ADR procedures are less complex, and the relative costs incurred is lower than costs incurred during trials. Prolong in the settlement of disputes would prolong job progress and it would be resulted in additional expenses and pave the way towards probable penalties (She, 2011). The majority of researches, agreed that less cost and less time is the paramount important qualities of ADR which it differs from the litigation. In addition, researchers agreed that the confidentiality and flexibility are some of the important attributes to be looked at and they further emphasised that those are the precious advantages in ADR compared to litigation. Moreover, as per their point of view there is freedom to parties to decide the ADR procedure which called 'Party Autonomy'. Similarly, because of the uniqueness in construction sector pre-established processes are not effective and do not provide deseeded outcomes.

Tracy (1995) mentions that complexity and technicality of the construction dispute is another factor influenced to use ADR. Even though other key sources do not recognise the same it can be considered as an important factor which the parties can achieve when using ADR. Uninterrupted business relationships are paramount important for any commercial entity. Throughout any ADR process, it encourages the parties to discuss about the dispute resolution process and the impartial facilitator also helps both sides to come to a breakeven level. Due to this, parties consider that if ADR is used, there will be no harm to the business relationships of them (Sprague, 2006 as cited in She, 2011). Binding nature and enforceability are another important factors to be considered when using ADR for dispute resolution. Resolution reached through negotiation or mediation without using the agreement documented is not binding. In arbitration, arbitrator made arbitral awards which are binding and enforceable.

Based on the assessment of available key literature, the researcher came up with a summary of nine commonly influencing factors which lead the parties to use ADR as demonstrated in Table 2.4. When selecting these nine factors, the researcher compares and contrasts all the factors identified in key sources (Table 2.3) and in some occasions takes few factors with similar meanings collectively as one single factor.

Table 2.4. Summary of the common factors influencing to use ADR

Factor	Treacy (1995)	Cheung (1999)	Cheung et al. (2002)	Patel and Shah (2014)
Time	Time	Time involvement	Speed	Total Duration
Cost	Cost	Cost of process	Cost	Associated cost
Relationship between parties	Effect to the relationships of the parties	Maintaining relationships	Preservation of Relationships	Preservation of relationships
Degree of confidentiality	Amount of disclosure to outside	Degree of privacy	Privacy and Confidentiality	Confidentiality
Binding nature of the decision		-Binding nature of the decision -Nature of the remedy	-Nature of the remedy - Outcome	Binding nature and enforcement
Enforceability of the decision		Enforceability of the decision	Enforceability	Binding nature and enforcement
Level of complexity of the dispute	-Availability of qualified experts -Management concerns			-Lawyer's influence where required -Legal system: Parties want to resolve the dispute through legal system to avoid damage to someone's reputation.
Neutrality and Fairness			Openness, Neutrality and Fairness	Neutrality and Fairness
Flexibility of the proceedings	Facility of early negotiations via direct communication between parties	-Party autonomy -Flexibility of the proceeding	- Flexibility - Degree of Control	- Flexibility -Degree of control by parties -Degree of control by neutral

2.6 Desired outcomes of using ADR to resolve disputes

In the previous section it has identified nine (9) factors as the most common influencing factors to the usage of ADR in construction projects. In other point of view, each of these factors, demonstrate desired outcomes or benefits which parties expect from using ADR to resolve construction disputes. Mainly, to facilitate the measurement of success level of the influencing factors, the desired outcomes associated with each factor was established based on the evaluated literature and researcher's value input. Table 2.5 intends to exhibit the desired outcomes in relation with the identified influencing factors.

Table 2.5. Influencing factors vs. desired outcomes

<i>Factor influence to use ADR</i>	<i>Desired outcome expected</i>
<i>Time</i>	Less duration of the proceeding
<i>Cost</i>	Less cost involved
<i>Relationship between parties</i>	Preservation of relationship between parties
<i>Degree of confidentiality</i>	High level of Confidentiality
<i>Binding nature of the decision</i>	Binding nature of the decision
<i>Enforceability of the decision</i>	Enforceability of the decision
<i>Level of complexity of the dispute</i>	Ability to use qualified, neutral experts to complex matters
<i>Neutrality and Fairness</i>	High level of Neutrality and Fairness
<i>Flexibility of the proceedings</i>	Parties' ability to control over the proceeding

In this research, level of achieving the desired outcomes was used as the tool to measure the effectiveness of using ADR in practical cases in Sri Lankan building projects.

Less duration of the proceeding

According to Harmon (2003) the industry desires speedy logical resolution by using ADR. Although the parties' desire is as such, no prediction can be given to the time involvement as it relies on numerous aspects. In litigation and arbitration it takes

comparatively long duration than other methods. Some methods such as DAB consists of specified schedule and can be specific and speedy.

Less cost involved

There is no procedural difficulty in ADR processes and thus, the cost incur will be substantially less than litigation (Cheung and Suen, 2002). Cost denotes the overall cost of getting in to a settlement. Money and time are usually interrelated whereas fast resolution methods contribute to a reduction in overall costs. If the hearings are focused only on records or if the hearing is limited, the cost would be lower.

Preservation of relationship between parties

According to Cheung and Suen (2002) bases for a sound relationship are trust, shared goals and mutual respect and further, it is a key element of managing a successful business. Involving continuously in disputes largely affects the relationships between parties. Kavinda (2010) suggests that, it is better to avoid litigation in disputing situations for good future relationship as the litigation process often fractured the relationship among parties. At the end of trial there is a win – lose situation whereas ADR strategies focus towards a win-win situation (Cheung and Suen, 2002).

High level of confidentiality of the process

According to Brown and Marriott (1999), it is an inherent characteristic of certain ADR procedures that the parties engaged with dispute are not permissible to release any information or facts to the public, unless the parties agree unanimously. In such situations, all contact between the involving entities shall be carried out confidentially. Patel and Shah (2014) pointed out that, when parties want to keep their dispute as well as the settlement private and away from the public attention the often go for ADR.

Parties' ability to control over the proceeding (Party Autonomy)

ADR approaches are generally considered versatile, thus parties can decide and modify the structure of the proceedings as they required (Cheung and Suen, 2002). The author elaborate the same and states that when compared with litigation which is having pre-

established manner of proceedings the disputant parties entertain discretion over the format and content of the proceedings in ADR.

Binding nature of the decision

Binding decision means, whether the parties satisfied or not they have to comply with it even though they disagree and go for a superseding method of resolution. Adjudication or DAB can be taken as an example; the decision given in adjudication stands and the parties shall comply with it till the dispute is reopened at arbitration or litigation and the decision is revised. In some strategies such as mediation in Sri Lanka, if one party disagree they could go for any other method without implementing the decision.

Enforceability of the decision

According to She (2011) decisions given under some ADR methods can be enforced in the courts and the same can be considered as another benefit of ADR. However, a negotiated or mediated settlement in the absence of a written agreement is not enforceable (Cheung et al. 2002). This is only a feature of high adversarial ADR processes under the context of Sri Lankan legal system.

Providing qualified, neutral experts to complex matters

According to Cheung et al. (2002) another desired outcome of using ADR processes is the high probability of selecting an ideal expertise to resolve disputes. In construction sector, there can be issues related with high technical aspects, which always require experts involve or associated with relevant fields.

High level of neutrality and fairness

The proceedings shall be fair for the both parties. In most of the ADR methods there is an equal opportunity for the parties to make their submissions (She, 2011). Therefore, this can also be considered as a desired outcome of going for ADR.

2.7 Summary

Construction is a complex process which requires sound management system, in order to coordinate many stakeholders working together who are having different objectives with the expectation of profit making. This complexity creates problems unavoidably. If problems arises in such nature are not resolved promptly, they can pave the way towards many complications.

Over the last few decades, professionals in the construction sector have been seeking and creating solutions and contributing to its conventional dispute resolution process. Accordingly, the invention of many processes were taken place which can be used as alternatives for the traditional techniques such as litigation. However, when going for such ADR methods, parties are expecting number of benefits over the traditional process. Those desired outcomes need to be identified carefully and the ADR process should be managed in a way that facilitates achieving of the same.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The area and issue prevailing in the research were primarily defined under chapter one and goals and objectives were developed by considering scope and limitations to the research. Furthermore, objective one and a part of the objective two were achieved with the completion of the literature review. This chapter is therefore intended to address the research methodology that has been implemented, while explaining the research design and research process used in this research study. In addition, it discusses the forthcoming steps and the procedure for carrying out such steps for the fruitful achievement of the research objectives.

3.2 Research Process

Sequential order of the several phases which are organized to carryout successful reserch study are included in a research process (Kothari, 2004). The research process followed for this study has been shown in Figure 3.1 and the subsequent sections elaborated the detail methodology.

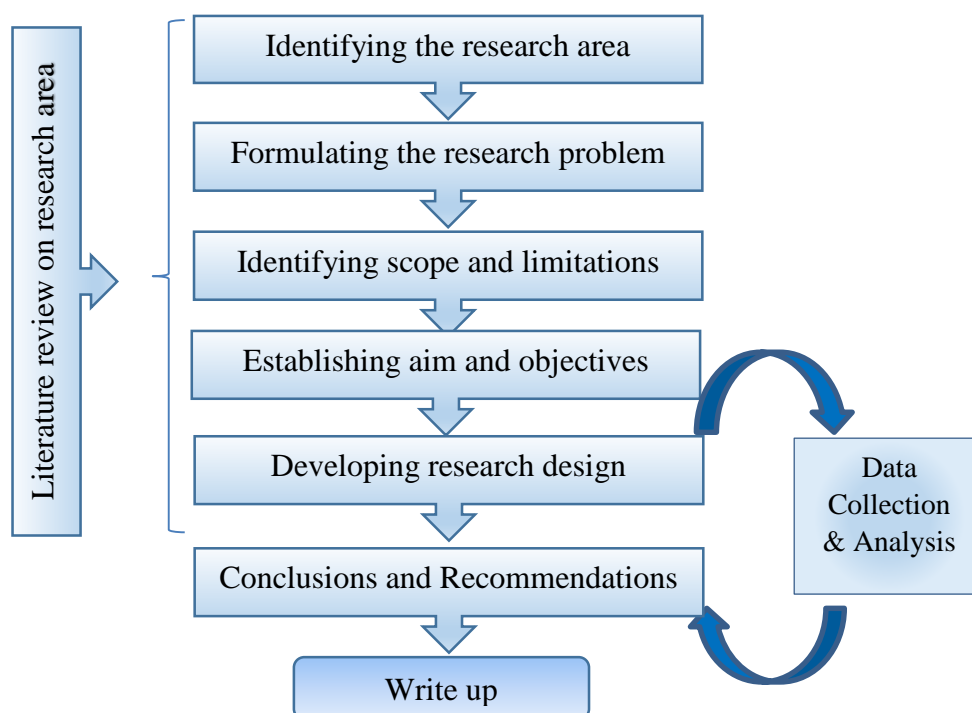


Figure 3.1. Research Process

3.2.1 Contextual study of the research

First and foremost, it is an important task to get familiarized with the subject area of Alternative Dispute Resolution (ADR). Hence, by referring various documentary sources already available were used to carry out such a basic study and that led to identify a proper research gap in the research area.

3.2.2 Formulating the research problem

According to Kothari (2004), the researcher shall identify the problem that he has to or want to study at the initial stages through a contextual analysis. Therefore, the researcher found the research gap of this research after doing an initial contextual survey on subject area. According to the recognized research gap, the research problem was finalised as to evaluate the level of achieving desired outcomes of using ADR in Sri Lankan building projects and to propose recommendations to enhance achieving of desired outcomes. Research problem led to develop aim and objectives and further, scope and limitations were defined to undertake the research within the available resources. Descriptively, the literature review stage tackled the research question developed under this step.

3.2.3 Literature synthesis

Reviewing literature was a continuous process from the beginning to the end of the research. Basically, the extensive literature review with the use of various hard and soft resources such as journal articles, conference proceedings, books, web articles have thoroughly explained the research problem. Thus, more focus was given to previous research articles which included information related to ADR and influencing factors to use ADR. Moreover, journal articles and books regarding research methodologies were used in order to develop the research design of this research.

3.2.4 Developing a research design

Research design is demonstrating an action plan for getting a set of conclusions for the questions initially identified as the areas need to be answered (Yin, 2014). Prime purpose of a research design is to guarantee that the investigator is able to respond as

simply as possible to the research problem by using the information obtained within the course of the research. The research design process can therefore be characterized as a method of organizing activities to obtain answers to questions or issues that have been pre-established. Punch (2005) describes this dimension in simple terms, and is explained by Figure 3.2.

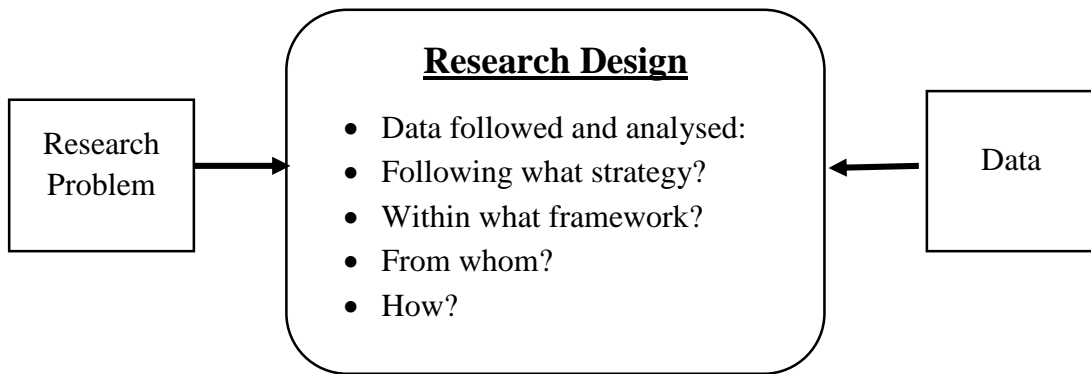


Figure 3.2. Research design

Source: Punch (2005, p63)

Determining type and contents of the design depends on the nature of the research question (Noor, 2008). On the word of Lu and Sexton (2004), nested approach is the most popular research design which includes research philosophy, research approach and research technique. Hence, in this study the nested design was followed and Figure 3.3 gives a summarised idea about the nested approach.

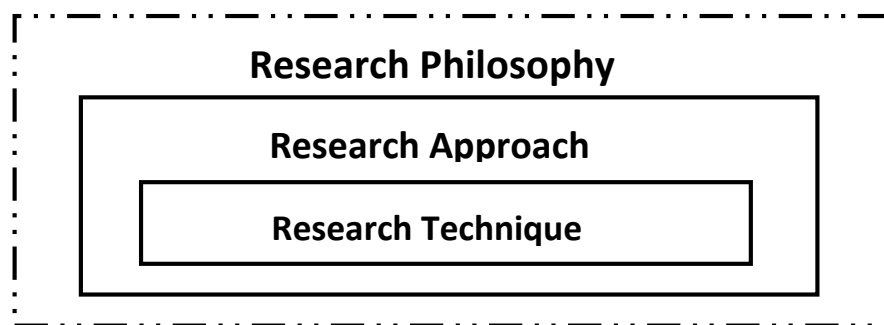


Figure 3.3. Nested Research Methodology

Source: Kagioglou et al, (2000)

3.2.4.1 Research philosophy

A system of theories and assumptions regarding knowledge formation is coming under the term philosophy (Saunders, Lewis & Thornville, 2019). According to Saunders et al. (2019), there are mainly three types of such assumptions as ontological, epistemological and axiological which we are used in research studies. Epistemology refers to knowledge theories, what constitutes reasonable, true and legitimate knowledge and how we can pass on information to others (Burrell and Morgan 2005). Saunders et al. (2019) defines that epistemology has two extreme positions as social constructivism and positivism. Furthermore, Saunders et al. (2019) mentions that ontology sees the nature of reality and has two extreme positions as subjective and objective, whereas axiology sees value judgment and two extremes as value laden and value free.

There are two extreme positions of philosophies available as positivism and pragmatism. In extreme positivist position, it is assumed that all social and physical entities are real and the research study is based on measurable facts. A pragmatist, work begins with a question and seeks to provide practical solutions guiding future practices (Elkjaer and Simpson, 2011).

According to the aim and objectives described in chapter 01, this study depended on the subjective data collected from industry which guided the researcher to provide recommendations to enhance the level of desired outcomes of using ADR for dispute resolution. Since, the research depended on the opinions of the industry experts it did not hold the characteristics of the positivism. Moreover, as the researcher proposed some practical recommendations by analysing the collected data, the research also holds value laden position under axiology assumption. Therefore, it can be concluded that this research is having a philosophy which is more towards pragmatism. After recognising the philosophy, the next step should be the identification of a suitable research approach.

3.2.4.2 Research approach

There are two fundamental approaches to conduct a research as quantitative and qualitative. Qualitative approach collects relative knowledge that is, collecting answers for 'why' (ACET, 2013). Similarly, qualitative research examines perceptions, behaviours, interactions and attempts through participants to gain an in-depth opinion (Dawson, 2002). Conversely, in quantitative research information is finding based on evidence or documents, and is in essence "objective." In between these two ends there are mixed method research approaches as well. Mixed method researches typically reflects works involving the compilation, analysis and interpretation of quantitative and qualitative data in a single study (Leech & Onwuegbuzie, 2008). The choice of a suitable research approach between these types thus depends on the nature of the analysis.

The current study is more towards fact-finding nature hence requires an in-depth understanding of factors influencing to use ADR and expected outcomes of ADR in Sri Lankan context in order to evaluate the level of success of using ADR. On the other hand, the researcher intended to recognize the highly influencing factors/highly desired outcomes to use ADR with the aid of ranking obtained from experts. Therefore, simultaneously, there was a slight involvement of quantitative parameters too in the research. Accordingly, Mixed method, predominantly qualitative approach was adopted by the researcher because the study was more focused on understanding the realistic setting of a particular phenomenon which is a fact highlighted by Berg (2001).

Preliminary Expert Interviews

Experts' interviews at the beginning of a data collection can be recognized as a valuable aid to get a confirmation on literature findings and obtain more specific details related with a particular phenomenon in a practical sense. Therefore, the researcher carried out four (4) preliminary expert interviews under this study in order to critically evaluate the factors influencing the use of ADR for construction disputes and identify the highly influencing factors when come to the Sri Lankan context. The collected data of these interviews were further assisted the researcher in case studies.

Case study approach

As described in Sauro (2015) there are basically five categories of qualitative research approaches as phenomenology, grounded theory, ethnography, case study, and narrative. Ethnography immerses the researcher in the environment of the target participant for the purpose of understanding emerging goals, cultures, challenges, motivations, and themes (Sauro, 2015). Moreover, Sauro (2015) explains that narrative approach collects together a series of events, mostly from one or two individuals to build a cohesive story and phenomenology tries to see how others think about an already established phenomenon. According to Berg (2001) scholars of grounded theory seek to establish hypotheses of the phenomenon being investigated and case study research provides a detailed analysis of a specific case. As this research does not discuss about pre-established phenomenon, both phenomenology and grounded theory were not suitable for this research. Similarly, the researcher would not immerse herself to study the actual scenario ethnography was not considered as the appropriate approach. Unlike an ethnographic approach that examines the whole group, a case study focuses on one particular facet, like an individual, group process or operation and provides a chance to have an in depth analysis. In addition, case study approach is a realistic analysis which can be used to examine a particular phenomenon in a real life scenario with the use of various evidence and sources (Yin, 2014). In other point of view, Patton and Appelbaum (2003) states that, where qualitative data become major, case studies are more suitable.

As per the summary of the above literature, it was evident that the case study approach is ideal if less is understood about a particular phenomenon and when organized, in-depth research is required. In this study the researcher had less information regarding the problematic area and it also required to have an in depth analysis on the success level of achieving desired outcomes of ADR in real life context. Thus, the case study approach was adopted to this research by considering the above factors.

Case selection

When it comes to case selection, key considerations are to be regarded as the identification of case study boundary, definition of the unit of analysis, which determines the number of cases and the selection criteria.

a). Case study boundary

According to Yin (2014), researchers may closely examine the accessibility, ease, flexibility and fit for the purpose when selecting a case study boundary. In this research following criteria were considered.

To avoid complexities which may occur when evaluating building and civil projects simultaneously and due to abundance of disputes associated with building projects in current context the researcher selected cases only from building projects. Some ADR practices of infrastructure development projects differ to those of building projects. As an example, most of the infrastructure development projects have a standing Dispute Adjudication Board whereas building projects commonly use ad hoc Dispute Adjudication Boards. Therefore, all the cases were selected from building projects and the case boundary can be mentioned as building projects.

b). Identification of unit of analysis

Identification of unit of analysis is paramount important in research design and it is related with the origin of the research problem as well (Yin, 2014). Ultimate goal of this study was to evaluate the level of achieving the desired outcomes of using ADR for resolving disputes in Sri Lankan construction industry. Thus the unit of analysis in this research consisted of building projects that implemented ADR to resolve disputes and the same has shown in Figure 3.4.

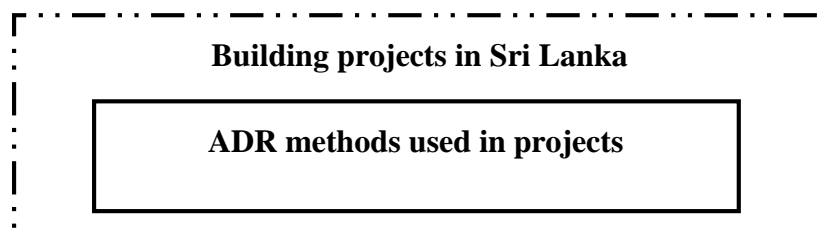


Figure 3.4. Identification of unit of analysis

c). Defining the number of cases

Subsequently after the identification of the unit of analysis number of cases shall be defined. According to Yin (2014), in a case study the number of cases may vary from one to eight depending on the nature of the research. As this research is concentrated on the success level of using ADR for construction disputes and looking at the ongoing practice and, it is decided to go for six (06) number of case studies.

d). Criteria for selection of cases

Since this study is based on evaluating the level of achieving the desired outcomes of using ADR for construction disputes in Sri Lanka, projects which use primary ADR methods were selected. Moreover, case selection again considered the project duration and projects which are having construction duration around twelve months or more were selected.

3.3.4.3 Research techniques

Under this sub section both data collection and analysis techniques have been discussed.

Data collection techniques

There are five main types of data collection means namely observations, documentary reviews, interviews, questionnaires and tests have been identified by Thomas and Brubaker (2008). After the initial stages of problem identification, the researcher had to investigate the nature of data which is going to collect and the respective way of collecting the same. Selection of a particular data collection methods is decided based on research objectives, benefits and drawbacks of each approach (Kajornboon, 2005). Semi-structured interview of several other qualitative data collection methods was chosen for this analysis.

Semi structured interviews

Kothari (2004) describes in interviews there is a verbal interaction between two parties who meet each other in the purpose of explaining the problem and obtaining solutions. Four forms of interviews are available as Structured, Semi-Structured, Unstructured

and Nondirective. Among those, the most common type of interview used for qualitative research is semi-structured interviewing (Dawson, 2002).

Through a comparison made by Noor (2008), it was revealed that semi structured interviews are adequately flexible when use to approach various respondents as required where same set of questions are repeating. In addition, Sekaran (2003) notes that semi structured interviews provide the opportunity of adopting required questions whenever the researcher face a doubtful state during the interview and ensuring the clear understanding of the response. Sekaran (2003) also emphasizes that if the interviews are performed face-to-face, the researcher will gather nonverbal clues and information from the respondent.

For the purpose of effectively achieving research objectives, semi-structured interviews were adopted in this study. Although, both first and second objectives were attained with the use of literature data, there were no adequate particulars related to the local setout of ADR. For this reason, four preliminary expert interviews were carried out as semi-structured interviews to critically assess the desired results of using ADR in Sri Lankan projects (Objective2).

Afterwards, collected information through initial expert interviews were used as a guideline for the Case Study which aided to attain the objectives 3 and 4 of the research study in order to evaluate the level of achieving desired outcomes of using ADR in Sri Lankan projects and to propose recommendations to enhance the level of outcomes.

Data collection of selected cases were done using semi-structured interviews and reviewing documents. At least one interview from each case was conducted with the participation of the neutral third party involved in the project.

According to the requirements of the research, convenient sampling method was applied for the interviews. Convenient sampling is a process used when identifying participants with particular characteristics based on project requirements (Naoum, 2007). Since, this study was lacking data to support the local context there was a necessity to carryout interviews with whom who were having expertize knowledge about the area of ADR in Sri Lanka. Therefore experienced Arbitrators, Adjudicators,

and Claim specialists selected according to the required characteristics based on convenient sampling, were interviewed.

Document Review

As Bowen (2009) has pointed out, document analysis is a methodical approach to analyze or evaluate both written and electrical documents. Document analysis, likewise in other analytical methods under qualitative background, involves a process of assessment and clarification of data for the purpose of getting thorough on such data. In this research study, the researcher used document review as a data collection method under case studies. Basically, document review assisted the searcher for understanding about the background of the cases. Statement of claims, statement of responses and decisions given by honorable party were the documents mainly reviewed under each case.

Data analysis techniques

Significant concerns emerging within each case as a result of data collection were established after creating interview transcripts. As the research design was to have a case study, Perry (1998) emphasizes that there need to be a ‘cross case analysis’ in order to successfully recognize the interrelationships and interdependencies among individual cases. The following sections address the analysis of information and presenting the conclusions to define case trends.

Content analysis

Soon after the end of data collection activities, reduction or summarizing and identifying concepts associated with collected data were conducted via manual content analysis. Content analysis refers to a research tool that used to evaluate the existence of certain terms, themes or concepts within a given set of qualitative data. Further it involves classifying aforementioned qualitative data into predefined categories for the purpose of easy handling and presenting final outputs (Guthrie, Petty, Yongvanich & Ricceri, 2004).

Cognitive mapping

There are two major groups of formats for qualitative data presentation, namely matrices-with rectangular array which includes rows and columns and networks-with an intersection of set of ' nodes '(Miles & Huberman, 1994). Network techniques were followed when displaying the analysed data in this research and cognitive mapping was selected for data presentation. Cognitive mapping is a technique used to structure, analyze and understand problems accounting and to manage large quantities of qualitative data from documents (Ackermann, Eden & Cropper, 1992). This method was chosen because of its appropriateness in showing the interactions of concepts demonstrating from transcripts of interviews. Correspondingly, it offers an all-inclusive picture through facilitating the reader to review top and the bottom of the entire research at once. Cognitive mapping and tables were therefore chosen as the techniques for presenting data to provide the reader with expedient comprehension in a holistic way.

3.3.5 Write-up

Writing up the dissertation is the most crucial activity which was placed at the end of the research design. The researcher developed the write up over the time starting from a board contextual study up to a narrow real case scenario based findings which presented as conclusions and further suggestions to improve the effectiveness of using ADR.

3.4 Summary

This chapter demonstrated the methodological structure for the resolution of the research question described in the contextual analysis (see chapter 1) and exposed in depth through chapter 2, the chapter on literature. Multiple Holistic Qualitative Case Study Approach has been chosen to determine the level of achievement of the desired results of ADR with the aid of findings from case studies.

CHAPTER FOUR: ANALYSIS OF RESEARCH FINDINGS

4.1 Introduction

This chapter intends to present the analysis of collected data from preliminary expert interviews and case studies. Four semi-structured preliminary expert interviews were conducted at the initial data collection stage in order to industry best practitioners' opinions on the subject. Thereafter six cases were studied under the second stage for the purpose of doing an in depth study regarding the level of achieving the desired outcomes by using ADR methods in Sri Lankan building projects and ultimately proposed recommendations to enhance the effectiveness of using ADR methods. This chapter presents in detail the analysis of data gathered through preliminary expert interviews and case studies, and highlights the findings on research objectives.

4.2 Preliminary expert interviews

As the literature synthesis not much facilitated the researcher on local practice on factors influencing the selection of ADR methods for construction projects, the researcher had to collect data by carrying out four expert interviews as the inception of data collection process. The collected data facilitated the researcher to reach out research objectives which have been described in the below mentioned sub-section.

4.2.1 Objectives of the preliminary expert interviews

Results of preliminary expert interviews gave consequential outcomes to achieve below mentioned research objectives.

- To critically evaluate the factors influencing the selection of Alternative Dispute Resolution for construction projects in Sri Lanka

In addition, data collected via interviews and literature findings provided a suitable platform for preparing interview guidelines for case studies in order to achieve the rest of the objectives.

4.2.2 Respondents to preliminary expert interviews

Alternative Dispute Resolution is nowadays reasonably familiarized among the Construction industry practitioners and legal practitioners. However, in order to get a legal opinion in relation with a technical opinion, professionals involved with construction projects were selected. The sample includes claim specialists, adjudicators and arbitrators as shown in Table 4.1.

Table 4.1. Respondents' profile-Preliminary Expert Interviews

Code	Designation	Specialization	Experience
R-101	Managing Director	Chartered Quantity Surveyor, Claims specialist, Adjudicator	18 years
R-102	Managing Director	Chartered Quantity Surveyor, Claims specialist, Adjudicator, Arbitrator	18 years
R-103	Freelance Consultant	Chartered Quantity Surveyor, Arbitrator, Adjudicator/ DB Member, Mediator,	Over 25 years
R-104	Senior Quantity Surveyor	Chartered Quantity Surveyor	10 years

4.2.3 Analysis of preliminary expert interviews

Data collected through preliminary expert interviews were analysed before starting detailed case studies, for the purpose of obtaining data to prepare the interview guideline for case studies. Firstly, data obtained through expert interviews with the use of interview transcripts were analysed and identified the influencing factors to move towards ADR including their influence level. Then, the results of those influencing factors were transferred in to the interview guideline of case studies as desired outcomes of selecting ADR to resolve construction disputes.

4.2.3.1 Factors influencing for using ADR in Sri Lankan Projects

As separated in the interview guideline (refer appendix 01), interviews were based on two sections, namely general information and the factors influencing to select ADR for dispute resolution. Accordingly, subsequent paragraphs discuss results of the analysis of data collected under section two of the interview guideline. As mentioned in the guideline, the influencing factors with respect to the construction industry of Sri Lanka and their level of influencing were examined using below listed factors which were recognized via literature findings.

- Time
- Cost
- Relationship between parties
- Degree of confidentiality
- Binding nature of the decision
- Enforceability of the decision
- Level of complexity of the dispute
- Neutrality and Fairness
- Flexibility of the proceedings

Respondents' answers for the aforementioned aspects are briefed in the Table 4.2.

Table 4.2. Summary of the respondent's opinion

<i>INFLUENCING FACTOR</i>	<i>R-101</i>		<i>R-102</i>		<i>R-103</i>		<i>R-104</i>	
	<i>Y/ N</i>	<i>LI</i>	<i>Y/ N</i>	<i>LI</i>	<i>Y/ N</i>	<i>LI</i>	<i>Y/ N</i>	<i>LI</i>
Time	Y	03	Y	02	Y	02	Y	01
Cost	Y	02	Y	02	Y	03	Y	01
Relationship between parties	Y	04	Y	01	Y	05	Y	02
Degree of confidentiality	Y	05	Y	02	Y	04	Y	02
Binding nature of the decision	Y	01	Y	02	Y	03	Y	01
Enforceability of the decision	Y	04	Y	02	Y	05	Y	02
Level of complexity of the dispute	Y	04	Y	02	Y	06	Y	02
Neutrality and Fairness	Y	07	Y	02	Y	05	Y	02
Flexibility of the proceedings	Y	06	Y	02	Y	01	Y	02

Note: Level of Influencing (LI) has been identified high to low from 1 to 7.

According to literature findings, nine (09) factors were identified as influencing factors for using ADR to settle disputes in the construction industry. The respondents were requested to identify the factors related to the Sri Lankan context and comparatively rank the factors from one (1) to seven (7) where one (1) denotes the high level of influence. Accordingly, when considering about the level of influencing of aforementioned factors, respondents expressed scattered views. R-101 and R103 provided a weightage for each factor separately and other two respondents (R-102 and R-104) expressed that all factors were in the same influencing level except two or three high end factors.

Almost all the respondents of preliminary interviews accepted that all of these factors can be considered as influencing factors for using ADR in Sri Lankan construction industry. However, R-102 was having another view on the factor “Flexibility of the proceedings” and he stated that the Sri Lankan industry rarely looks at this particular factor as an influencing factor to select ADR because ADR is not mostly utilized correctly despite the fact that parties have autonomy to select such procedure related things. R-102 further stated that this factor became not valid at most occasions because parties preferred traditional legal procedures than ADR.

Majority of the respondents identified Binding Nature of the Decision is the most influencing factor for industry practitioners to go for ADR to resolve disputes. Furthermore, time and cost factors of ADR were recognised with a similar level of importance. R103 emphasized that ADR is selected mostly because of its less time and cost involvement compared with the traditional court system. However, R102 was having a different opinion where he mentioned that although ADR was believed less time consuming and less costly, there had been some cases where the ADR process had been dragged for considerable time spans like six years which ultimately resulted in generating high expenses.

As per the views of respondents, flexibility of the proceedings was another highly influencing factor for parties to select ADR. As mentioned by R101, flexibility of the ADR procedure is a precious characteristic of the ADR and parties wish to take the benefit of it when they are into dispute resolution procedure.

However, as previously mentioned R102 emphasized that although there is a chance for parties to control over the proceedings they are not really obtaining the maximum benefit and R102 further stated that the inadequacy of knowledge on ADR can be the main reason for that.

R-102 selected the factor 'Relationship between parties' is the most influencing factor among parties to go with ADR by rejecting the traditional court procedure. According to his views, business relationship is very important in the construction industry where not working in a neutral manner will ultimately lead for business losses. It is a well agreed view and the researcher also assumes that the business relationship is a critical job winning factor when it comes to the construction industry.

Moreover, collected data reveals that the factors such as degree of confidentiality of the process, level of complexity of the dispute and enforceability of the decision are in similar level when considered about the influencing ability. According to the views of most of the respondents, these factors are having middle level influence on the decision for selecting ADR. Even though it was believed that the confidentiality is a remarkable factor to select ADR over litigation respondents were highlighted that parties not having clear understanding on this and in some cases they do not consider the degree of privacy at all.

Neutrality & Fairness is another middle influencing factor over the parties' decision to select ADR to resolve construction disputes. On the other hand, R101 mentioned that neutrality and fairness cannot be considered as a highly influencing factor to differentiate the benefits of ADR against those of the traditional court system. As per his views fairness can be challenged at any method either ADR or traditional court system.

As per the above analysis it can be concluded that the view of all four respondents on the highest influencing factors is in a similar range. Therefore, the following Figure 4.1 intends to classify and scrutinized view of the respondents in to two levels considering the level of influencing of the factors to take the decision of selecting ADR.

When classifying the factors into two levels, it was considered the pattern of the respondent's answers and if at least one respondent has given highest ranking (number 01) for a particular factor that was taken in to the highly influencing category as this study is predominantly a qualitative research the researcher did not intended to carryout complex numerical analysis on the findings. Rest of the factors were categorized under medium influencing category.

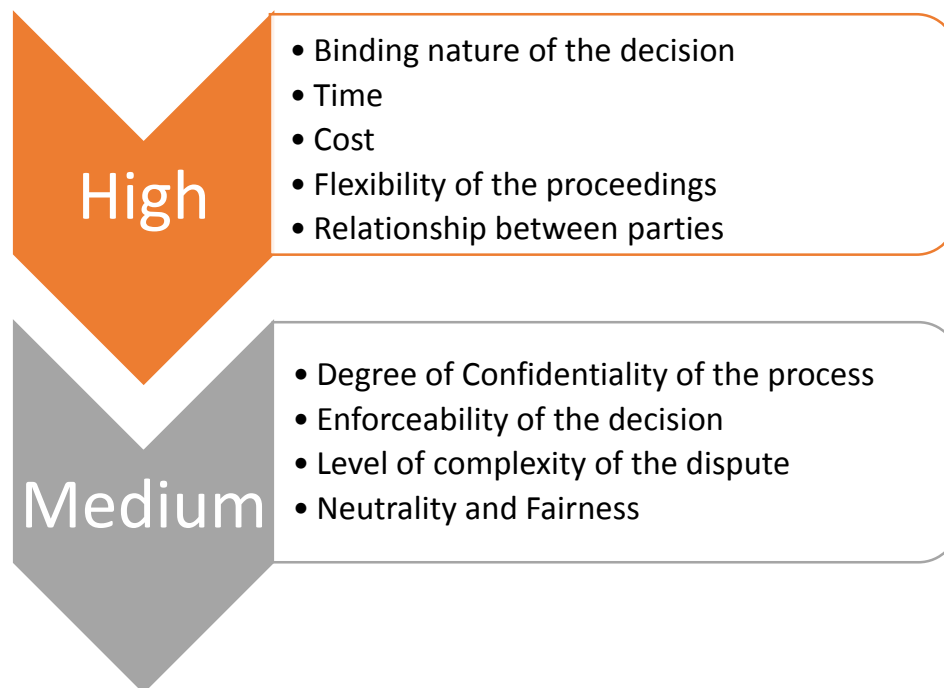


Figure 4.1. Influencing factors for using ADR

As demonstrated in Figure 4.1, there are five highly influencing factors which influence parties to use ADR when construction dispute resolution is needed. In other point of view, the desired out comes identified in the literature review related to the above factors can be identified as the mostly expected outcomes by the parties by using ADR for construction projects. Therefore, these factors were paved the basis for the investigation of the level of achieving the desired outcomes of selected cases in Construction industry. The desired outcome expected under each of the above highly influencing factor is given in Figure 4.2.

Binding nature of the decision	<ul style="list-style-type: none"> • Binding nature of the decision
Time	<ul style="list-style-type: none"> • Less duration of the proceedings
Cost	<ul style="list-style-type: none"> • Less cost involved
Flexibility of the proceedings	<ul style="list-style-type: none"> • Parties' ability to control over the proceeding
Relationship between parties	<ul style="list-style-type: none"> • Preservation of relationship between parties

Figure 4.2. Desired outcomes of the highest influencing factors for using ADR

4.3 Case studies

According to the results of the preliminary expert interviews five factors were identified as the mostly expected outcomes by the parties when using ADR for construction disputes. Based on those expected outcomes, the researcher developed the interview guideline for case studies and data were collected through semi structured interviews and documentary reviews. Achieving research objectives as presented in the below mentioned sub section was assisted by the collected data.

4.3.1 Objectives of the case studies

The result obtained through case studies gave significant assistance for achieving the following mentioned objectives of the research.

- To investigate the success level of highly influencing factors in terms of their respective desired outcomes of using Alternative Dispute Resolution in building projects in Sri Lanka
- To propose recommendations to enhance the effective usage of Alternative Dispute Resolution in building projects in Sri Lanka

4.3.2 Sources of data used in case studies

A semi structured interview and a documentary review were conducted under all case studies to identify the background of the project, details of the dispute, ADR method used and the level of achieving desired outcomes through the used ADR method. In addition, the interviewees were requested to provide recommendations in order to make the ADR more effectively practiced by achieving its desired outcomes. The summary of the interviewees and documents referred under each case study have been summarized in Table 4.3.

Table 4.3. Summary of data sources of case studies

Case Ref. no	Details of the interviewee	Referred documents
CS-1	The sole Arbitrator (CSR - 1)	Statement of Claim -SOC Statement of Defence -SOD
CS-2	Member of the Dispute Adjudication Board (DAB) (CSR - 2)	Dispute Adjudication Board Referral - DABR Response document The decision of the DAB
CS-3	Member of the Dispute Adjudication Board (DAB) (CSR - 3)	Dispute Adjudication Board Referral -DABR
CS-4	Member of the Dispute Adjudication Board (DAB) (CSR - 4)	Statement of Claim -SOC Statement of Defence -SOD Statement of Reply -SOR The decision of the DAB
CS-5	Sole Adjudicator (CSR - 5)	Statement of Claim -SOC Statement of Defence -SOD Statement of Reply -SOR The decision of the Adjudicator
CS-6	Sole Arbitrator (CSR - 6)	Statement of Claim -SOC Statement of Defence -SOD Statement of Reply -SOR The decision of the Arbitrator

4.3.3 Background study of each case

This section of the research presents a brief description of each project including the nature of the dispute which the ADR had been used. Most of these background data were collected through the document review process.

4.3.3.1 Case Study 01(CS-1)

Case study 01 was related to the proposed additions, modifications and improvements in an existing building in Colombo district where a private entity was the Contractor and a government entity was the Employer. The Standard Bidding Document for major contracts 2nd edition (SBD 02) published by the Construction Industry Development Authority (CIDA) had been used as the Contract document. According to the Contract, the duration of the Contract had been established as ten (10) months.

Details of the Dispute

According to the details given in the Statement of claim, the Contractor had suffered from delays due to the various Employer culpable events such as delays in site possession, delays in issuing drawings and variation works. SOC further emphasized that the contractor incurred further expenses because of these delays. Therefore, the contractor had placed an extension of time and associated cost claim whereas the Engineer had approved the time extension only. As a result of that a dispute had emerged based on not giving the cost of EOT claim by the Employer.

As per the SOC, the Contractor had sent an intention to go for Adjudication to resolve the dispute and looked for a binding decision from Adjudicator to carry forward the works.

However, the respondent had not participated for adjudication hearings and no Statement of Defence had been submitted for the adjudication proceedings. Therefore, by considering the Statement of Claim submitted by the Claimant adjudicator had provided the decision. The Claimant disagreed with the adjudicator's decision and went for Arbitration to solve the same dispute by sending a notice of dissatisfaction.

Claimant	The Contractor
Respondent	The Employer
Dispute	Not given the cost of EOT claim by the Respondent
Selected ADR methods	1) Adjudication 2) Arbitration

4.3.3.2 Case Study 02 (CS-2)

Case study 02 was related to a twelve storey building construction work in Colombo district where a private entity was the Contractor and a government entity was the Employer. The Standard Bidding Document used for the project was FIDIC Conditions of Contract for Construction- Employer designed works 1999 (Red book - 1st edition). According to the Contract, the duration of the Contract had been established as fifteen (15) months.

Details of the Dispute

According to the details given in the Dispute Adjudication Board Referral (DABR) the Contractor had not received the vacant site possession as stipulated in the Contract. DABR further emphasized that due to this delay in site possession the Contractor had incurred delays and additional cost. Therefore, the Contractor had forwarded an Extension of time and associated cost claim whereas the Engineer had rejected the claim. As a result of that a dispute had emerged based on not giving the extension of time and associated cost to the Contractor.

As per the DABR, the Contractor had sent an intention to go for Adjudication to resolve the dispute and looked for a binding decision from DAB to continue the project.

Claimant	The Contractor
Respondent	The Employer
Dispute	Rejecting the Extension of time and associated cost claim by the Engineer
Selected ADR method	Dispute Adjudication Board-Ad hoc

4.3.3.3 Case Study 03 (CS-3)

Case study 03 was related to design, supply and installation of a low voltage electrical distribution system of a high rise building where a private entity was the Contractor and a government entity was the Employer. The Standard Bidding Document used for the project is FIDIC Conditions of Contract for Plant and Design Build 1999 (Yellow book -1st edition). According to the Contract, the duration of the Contract had been established as twelve (12) months.

Details of the Dispute

According to the details given in the Dispute Adjudication Board Referral (DABR) the Contractor had suffered from delays and incurred additional cost due to some of such delays which were responsible by the Employer. The Contractor had placed two EOT claims by asking additional time and cost. Although the Engineer had granted the requested EOT the additional cost had not approved. As a result of that a dispute had emerged based on not giving associated cost of the EOT claims to the Contractor.

As per the DABR, the Contractor sent an intention to go for Adjudication to resolve the dispute and looked for a binding decision from DAB to move forward the works.

Claimant	The Contractor
Respondent	The Employer
Dispute	Rejecting the associated cost of EOT claims by the Engineer
Selected ADR method	Dispute Adjudication Board –Ad hoc

4.3.3.4 Case Study 04 (CS-4)

Case study 04 was related with Supplying and installation of an electrical distribution system of a high rise building where two private entities had worked as the main Contractor and the sub-Contractor. The Standard Bidding Document used for the main Contract between the Employer and the main Contractor was Standard bidding document for Design and Build projects – 1st edition (2003) published by CIDA. As per the reviewed correspondences, it was revealed that the sub contract document had not been a standard one, but a tailor-made document. Similarly, it was identified that

the related documentation in this Contract were very poor and most of the documents had contained errors which had resulted for dispute prone situations.

Details of the Dispute

According to the details given in the Statement of Claim (SOC) submitted by the Sub Contractor there had been a reduction in the Sub Contract scope of works in parallel to the revision of drawings. Due to this scope reduction and design variations the sub-contractor had encountered an impact for his cash flow hence had requested the Employer to pay unrecovered overhead and the profit lost due to reduction of the work scope. In addition, the sub-contractor had claimed cost of left over floor trunking as well.

However, the Main Contractor had rejected the claim of the sub-contractor and it has led the path for sub-contractor to seek a solution through ADR.

As per the SOC, the sub-contractor had sent an intention to go for Adjudication to resolve the dispute and looked for a binding decision from DAB to recover this loss.

Claimant	The Sub Contractor
Respondent	The Main Contractor
Dispute	Rejecting the cost claim due to reduction of scope and revision of drawings
Selected ADR method	Dispute Adjudication Board –Ad hoc

4.3.3.5 Case Study 05 (CS-5)

Case study 05 was related to Construction of three storied auditorium building in Colombo district where a private entity was the Contractor and a semi government entity was the Employer. The Standard Bidding Document for major contracts 2nd edition (SBD 02) published by the Construction Industry Development Authority (CIDA) was used as the Contract document for this project. According to the Contract, the duration of the Contract had been established as twelve (12) months.

Details of the Dispute

As per the details given in the Statement of Claim the Contractor had suffered from delayed events which were responsible by the Employer and therefore, he had placed an Extension of time claim for those events. However, the Engineer had evaluated those claims and granted only a part of the claimed time period. In addition to delayed events the Contractor had not received monthly payments in accordance with the Contract and the Contractor had forwarded an interest claim for the delayed payments. However, the Employer had not paid the Contractor according to the stipulated timelines and the Contractor had ultimately suspended the Works. Consequently, after receiving a part payment the Contractor had restarted the Works and due to the non-response of the Contractor's EOT claims there had been no completion date for the project and it was identified that 'time is at large'. Due to these reasons the Contractor had requested a global claim by cumulating all previous claims.

The Engineer had not responded to that global claim within the given time period hence the Contractor had sent an intention to go for Adjudication to resolve the dispute and looked for a binding decision from the Adjudicator to continue the works.

Claimant	The Contractor
Respondent	The Employer
Dispute	Rejecting the global claim of the Contractor
Selected ADR method	Adjudication

4.3.3.6 Case Study 06 (CS-6)

Case study 06 was related to development of preschool and two residential units where a private entity was the Contractor and a private organisation was the Employer. The Standard Bidding Document used for the project was Standard Conditions of Contract for the Works of Buildings and Civil Engineering – Sri Lanka published by the Institute for Construction Training and Development-Sri Lanka revised edition of January, 1989. According to the Contract, the duration of the Contract had been established as twelve (12) months.

Details of the Dispute

According to the details given in the Statement of Claim (SOC) the Contractor had suffered from a delay and incurred additional cost due to a scope variation in the project which was responsible by the Employer. The Contractor had placed an EOT claim by requesting additional time and the associated cost. The Engineer had rejected the EOT claim and associated cost claim and the Contractor had suffered because of the tight schedule to complete the original scope as well as the varied works. As a result of that a dispute had emerged between the parties.

As per the Condition of Contract there had been no provision for Adjudication hence dispute parties shall refer it to Arbitration. Therefore, the Contractor had sent an intention to go for Arbitration to resolve the dispute and looked for a binding decision from the Arbitrator to carry forward the works.

Claimant	The Contractor
Respondent	The Employer
Dispute	Rejecting the EOT claim and associated Cost claim by the Engineer
Selected ADR method	Arbitration

All six (6) case studies discussed in this research are representing Adjudication and Arbitration which are the two most commonly practiced ADR methods in the industry. The researcher faced some difficulties when finding case studies related to the Mediation and Negotiation since those are not commonly practiced with respect to building projects in Sri Lanka. Moreover there are no sufficient number of parties to contact for collecting related details. As explained by CSR-4, only Adjudication and Arbitration provide binding decision, hence the tendency to select those ADR methods are higher than that of either mediation or negotiation. This was identified as a limitation to this research under chapter five (5).

4.3.4 Analysis of data collected through case studies

During case studies, the researcher firstly reviewed all relevant documents of the particular case and obtained a clear understanding about the background of each case (see section 4.3.3) which assisted the researcher in conducting semi structured interview with the neutral third party to the dispute (respondent). As mentioned in the previous chapter, one (1) interview was conducted under each case study to evaluate the level of achieving desired outcomes of using ADR for resolve the particular dispute.

The list of most desired outcomes which parties expect from an ADR procedure has been identified through the preliminary expert interviews. For further analysis the desired outcomes of the high influencing factors as identified in Figure 4.2 were considered.

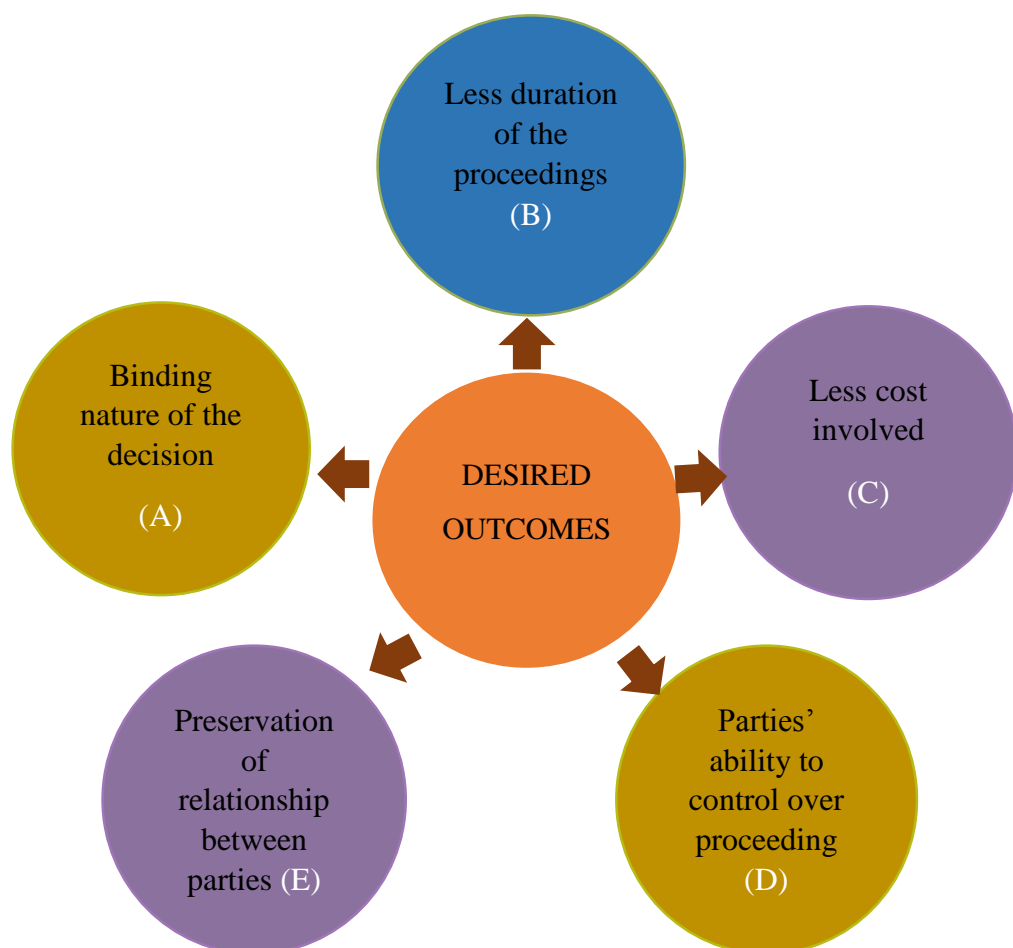


Figure 4.3. Highly desired outcomes of ADR

Within each case study these five (5) desired outcomes (see Figure 4.3) were evaluated in terms of their level of achieving of success.

The highly desired outcomes identified have been labelled from A-E for carrying out further analysis and in order to get an impression about the level of achieving each of these outcomes in cases, a three point scale has been defined as presented in Table 4.4

Table 4.4. Interpretation of scale for evaluating the level of achieving desired outcomes in cases

REF	FACTOR	SCALE		
		HIGH	AVERAGE	LOW
A	Binding nature of the decision	Both Parties honoured the decision	Not Applicable	Parties dishonoured the decision and referred the dispute to next level
B	Less duration of the proceedings	Decision was given on time	Decision was delayed less than one year	Decision was delayed more than one year/moved for other ADR method
C	Less cost involved	Spent as agreed at the beginning of the process	Spent more than agreed amounts due to delay	Spent additional cost for additional hearings
D	Parties' ability to control over proceeding	Parties had control over the proceedings as agreed	Parties had restrictions to control specific items	Parties had no control over the proceedings
E	Preservation of relationship between parties	Both parties had understood the situation and were helpful	One party acted in a hostile way	Both parties acted in a hostile way

It needs to be highlighted that though a scale has been developed as in Table 4.4 for the purpose of cross case evaluation, there can be contradictions to this based on the nature of the dispute/project.

4.3.4.1 Case Study 01 – Analysis (CS-1)

The interviewee was questioned regarding the level of achieving the above described outcomes of using ADR for resolving the dispute in the particular project. According to the view of CSR-1, this case had resulted no savings in time or cost by using ADR when compared against traditional methods of dispute resolution. As identified in the documentary review, parties initially had gone for adjudication and referred the dispute to the Arbitration because the claimant had not satisfied with the decision of the adjudicator. In this research the researcher studied the secondly used arbitration procedure and as highlighted by the CSR-1, it took more time (nearly one and half years up to now) for arbitration procedure and the cost incurred by the parties were also high due to the high number of hearings.

When considered about the parties' ability to control over the proceedings CSR-1 stated that the arbitration procedure had been carried out in accordance with the Arbitration act of Sri Lanka and the parties had the freedom to appoint arbitrators, decide the procedure for conducting hearings as well as the procedure regarding oral submissions.

CSR-1 further stated that the relationship between the parties had been in an average condition and both parties had a crystalized idea about the dispute that they were looking for a solution.

As this arbitration procedure is still ongoing the final decision has not been given yet. However, CSR-1 stated that there is a high possibility of the decision becoming final and binding according to the facts and the behaviour of the parties in the case.

Moreover, CSR-1 highlighted that parties were trying to get a settlement award rather than going for a legitimate award and it is evident that the parties will honour the final decision without any hesitance.

As per the view of the CSR-1, the reason for this kind of an attitude of the parties is to complete the process in a short time and to settle at a win - win situation for both parties. In another viewpoint, this situation can be recognised as an instance where the parties having control over the proceedings.

The level of achieving the listed desired outcomes through the case study 01 has shown in below mentioned diagram.

LEVEL OF ACHIEVING	High	X			X	
	Average					X
	Low		X	X		
		A	B	C	D	E
	DESIERD OUTCOMES					

4.3.4.2 Case Study 02 – Analysis (CS-2)

The respondent was questioned in order to obtain his views of achieving desired outcomes of the parties when using ADR for resolving disputes in this project. According to the view of CSR -2, the parties had not received most of the desired outcomes what they had expected by using ADR.

According to the documents reviewed, the parties initially had gone for adjudication in accordance with the Contract and later on they had to refer the dispute to Arbitration. CSR – 2 further highlighted that initially there had been an average level of impact to the time and cost time of the DAB procedure. The dispute adjudication board provided its decision with a small delay and as a result of that parties had incurred additional expenses.

In addition, CSR – 2 mentioned that the decision given by the DAB was a dissenting decision hence had created indirect influences on the parties to dishonour the decision. The claimant of the dispute was unhappy with the decision and had sent a Notice of Dissatisfaction (NOD) by referring the dispute to Arbitration. Meanwhile, one of the DAB members had resigned after the decision and the claimant had argued that the remaining members of the DAB did not conversant with the dispute. Therefore, based on the above facts it is evident that the decision of the Adjudication procedure cannot be considered as a binding decision.

However, CSR -2 emphasized that the relationship between the parties was in an average level despite the fact that the decision was not a binding decision.

Furthermore, CSR -2 stated that the parties were having considerable level of control over the proceedings and the same fact was clearly highlighted at the instance where they placed a NOD based on the incapacity of the DAB members. Traditional court system never let this kind of flexibility to control the procedure as parties want when it is compared with ADR.

The level of achieving the listed desired outcomes through the case study 02 has shown in below diagram.

LEVEL OF ACHIEVING	High				X	
	Average		X	X		X
	Low	X				
		A	B	C	D	E
DESIERD OUTCOMES						

4.3.4.3 Case Study 03 – Analysis (CS-3)

The level of achieving the desired outcomes through ADR in the case study 03 was further examined with an interview of the CSR-3. The used ADR method for this dispute was Dispute Adjudication Board and the decision had to be given within 84 Days as per the Contract.

CSR -3 stated that the DAB had given their decision on time as per the Contract and therefore, the fact that achieving the outcome of less time involvement was succeeded in this case. Further CSR – 3, mentioned that as this is an ad hoc DAB the parties had to bare less cost compared to standing DAB and the cost had been shared by the parties.

According to the opinion of CSR -3 parties had a certain control over the proceedings and basically going with DAB was also a decision made by the parties at the bidding stage of the project. If they wanted to straight away go with arbitration they had a prospect to do such by varying the contract between them accordingly.

Another desired outcome of using ADR is preservation of the relationship between parties. Conversely, as mentioned by CSR - 3 there had been no decent relationship between parties and similarly, justified that the reason may have been the nature of the

business of both parties. In this case, the respondent was a public sector organisation related to the field of defence and the claimant was a private party who had entered in to a contract with the respondent (Employer). Therefore, it is evident that if the parties to the dispute are not in a similar range of business areas their interest to keep a good relationship does not become a desired outcome for them when using ADR.

Binding nature of the decision given by the DAB is another main expectation to use ADR for an ongoing construction project. When parties honour the decision it will become final and binding in adjudication since no NOD is submitted. However, CSR -3 mentioned that neither the parties honoured the decision nor submitted NOD in case study 03. Furthermore, CSR -3 highlighted that the spirit of using ADR were not addressed in this case. Although the DAB decision was given on time, it was not beneficial to parties since they were absent in any means of communication.

The below mentioned diagram summarizes the level of achieving desired outcomes through this case study.

LEVEL OF ACHIEVING	High		X	X	X	
	Average					
	Low	X				X
		A	B	C	D	E
	DESIERD OUTCOMES					

4.3.4.4 Case Study 04 – Analysis (CS-4)

Conforming to the view of CSR-4, case study 04 achieved most of the desired outcomes of using Alternative Dispute Resolution. The parties received the decision of the DAB within the stipulated time period and therefore, no additional cost incurred by the parties.

In pursuance of CSR -4, the adjudication procedures had been carried out on the basis of dispute adjudication agreement entered by both the parties and each of the member of the DAB. In the agreement parties had the opportunity to appoint the adjudicators, decide the payment procedures and decide about the hearings as well as submissions.

In addition, CSR-4 stated that the relationship between the parties were in a good condition and both of them had well understood the dispute. In other opinion CSR -4 mentioned that as both parties were Construction Contractors they honoured the business relationship between each other.

However, the decision given by the DAB was not final and binding since the claimant had sent a NOD by referring the dispute to Arbitration. Following diagram summarizes the level of achieving desired outcomes through this case study.

LEVEL OF ACHIEVING	High		X	X	X	X
	Average					
	Low	X				
		A	B	C	D	E
	DESIRED OUTCOMES					

4.3.4.5 Case Study 05 – Analysis (CS-5)

Case study 05 was a dispute where the parties had hired a sole Adjudicator instead of the DAB to hear the dispute. As mentioned by CSR – 5, the parties could have reduced the cost of adjudication compared to DAB. However, on the other hand there was a little more time involvement compared to DAB since the single Adjudicator had to refer all the submissions individually and to declare his decision. Anyhow, ultimate desired outcomes of less cost and time have been achieved in this case.

Similar to all other cases, the parties had the right to decide and agree on some matters related to the adjudication procedure such as the appointment of the adjudicator and the procedure for oral submissions. CSR-5 highlighted that one rigid point to convey the parties’ ability to control over the proceedings was the use of single adjudicator without going for DAB.

According to CSR -5, the relationship between two parties was in an average level and it was clear that the reason was that they were not having or willing to have business relationships due to the variance of their business nature.

Similar to the majority of cases discussed above, this adjudication decision had not become final and binding since the claimant had submitted a NOD and referred the dispute to arbitration.

The level of achieving desired outcomes through this case study have been summarised in the following diagram.

LEVEL OF ACHIEVING	High		X	X	X	
	Average					X
	Low	X				
		A	B	C	D	E
	DESIERD OUTCOMES					

4.3.4.6 Case Study 06 – Analysis (CS-6)

Case study 06 was a situation where parties had referred their dispute to a sole arbitrator since there had been no provision/requirement to go for adjudication as the first instance.

As mentioned by CSR-6, there was less time and cost involvement than in the court proceedings and the arbitration procedure had ended within the stipulated time period in the Contract. However, CSR -6 additionally stated that although this case had ended in such a way, there are some arbitration cases which are dragged for many years without a decision been made. In his opinion, that is mainly due to the parties’ commitment towards the procedure and the expectation of being successful by having a quick decision.

In addition, CSR – 6 highlighted that parties had the control over the procedure as per the 1995 Arbitration act. Moreover, the relationship between parties was in an average condition and some attitudes of the respondent party had destroyed the relationship between the parties.

Pursuant to CSR-6, decision given by the arbitrator had become final and binding and the parties had honoured the decision and d moved forward with the rest of the Works.

The below mentioned diagram summarizes the level of achieving desired outcomes through this case study.

LEVEL OF ACHIEVING	High	X	X	X	X	
	Average					X
	Low					
		A	B	C	D	E
DESIERD OUTCOMES						

4.3.5 Cross case analysis of the level of achieving desired outcomes of using ADR

This sub section intends to discuss and critically analyse the summary of the case study findings regarding the level of achieving desired outcomes of using ADR for resolving disputes in building projects in Sri Lanka. Table 4.5 demonstrates a summary of case study findings.

Table 4.5. Cross case analysis of level of achieving desired outcomes

CASE NO.	A	B	C	D	E
CS01	H	L	L	H	A
CS02	L	A	A	H	A
CS03	L	H	H	H	L
CS04	L	H	H	H	H
CS05	L	H	H	H	A
CS06	H	H	H	H	A

H-High **A- Average** **L- Low**

A - Binding nature of the decision

B - Less duration of the proceedings

C - Less cost involved

D – Parties’ ability to control over the proceedings

E – Preservation of relationship between parties

As the above described table demonstrates the desired outcome label as ‘D’ is having high level of achievement. It represents the parties’ ability to control over the ADR procedure and in another words it can be called as party autonomy. In each case the interviewee clearly stated that both parties had enough flexibility to decide the most of the procedural aspects of dispute resolution process. All of the above discussed case studies had used Conditions of Contract in the standard bidding documents published by CIDA or FIDIC. Those standards are having default dispute resolution clauses and the parties had opportunities to alter the respective clauses by utilizing the flexibility prevailing with them. As per the respondents’ views party autonomy is used at the initial situation.

Thereafter, when a dispute occurs the parties can follow the dispute resolution clauses available in the Contract or enter into a separate agreement to use another means of dispute resolution by the agreement of both parties. Furthermore, the case study findings emphasized that the parties have the control over selecting a neutral third party, the payment procedure and also some submissions which have to be made to the neutral third party. Therefore party autonomy can be identified as the most successfully achieved outcome out of the mostly desired outcomes of using ADR in all the ADR procedures used in these case studies.

Research findings evident that less time involvement and less cost are two interrelated outcomes and mostly the time factor has the control over the cost factor. Apart from the case study 01 all other five cases had achieved both of these outcomes beyond the average level. Both CSR-1 and CSR -6 commonly stated that arbitration procedure mostly takes more time rather than other ADR methods and often those are dragged beyond the stipulated time period in the agreement. All the adjudication cases examined had been concluded within the time limits in the contract or agreement which had resulted no additional cost to the parties. Therefore, it can be generalized that the less time and cost involvement in the ADR had been achieved at a considerably higher level.

Moreover, the findings evident that preservation of relationship between the parties had been achieved in an average level and in most of the cases, the respondent party

to the claim was having a slightly aggressive attitude towards the claimant. The interviewees mentioned that if the parties had valued the business relationship between them they would have a decent relationship with the other party. As an example the parties to the dispute in case study four were a main contractor and a sub-contractor where they had a good understanding between them. In all other cases this outcome had been achieved in an average level. Therefore, it can be concluded that the parties cannot hundred percent preserve their relationships by using ADR.

It can be stated that the binding nature of the decision has not been achieved when considering about findings of these case studies although it was identified as a highly desired outcome in the preliminary expert interview findings. Findings are evident that there is a less possibility to achieve a final and binding decision in adjudication whereas the arbitration decision most of the time becomes final and binding. The respondents highlighted that parties honour the arbitration decision rather than those of other less adversarial processes because arbitration is more towards the legal character than other ADR methods such as adjudication and mediation. CSR -2 highlighted parties mostly use non adversarial ADR process as the first instance they would not consider its decision as final and binding which always leads to a second step.

In a nutshell, case study findings can be demonstrated in numerically as per Table 4.6 and Figure 4.4 to graph the level of achieving the desired outcomes by using ADR for resolve disputes in building projects in Sri Lanka. Marks were given respectively 3 for highly achieved, 2 for averagely achieved and 1 for less achieved. In order to understand how each desired outcome was achieved across cases and how each case achieved five (5) desired outcomes this matrix can be used. The desired outcome which has been highly achieved over all the six cases was given 18 total maximum marks. With the use of these total marks the researcher identified and derived conclusion on the level of achieving expected outcomes of using ADR and finally the success of ADR in building projects in Sri Lanka.

Table 4.6. Numeric presentation of level of achieving desired outcomes

Case No.	Desired outcome				
	A	B	C	D	E
01	3	1	1	3	2
02	1	2	2	3	2
03	1	3	3	3	1
04	1	3	3	3	3
05	1	3	3	3	2
06	3	3	3	3	2
Total points	10	15	15	18	12

Note: Points were given as follows;

Highly achieved – 3 points Averagely Achieved – 2 points Less/not achieved – 1 point

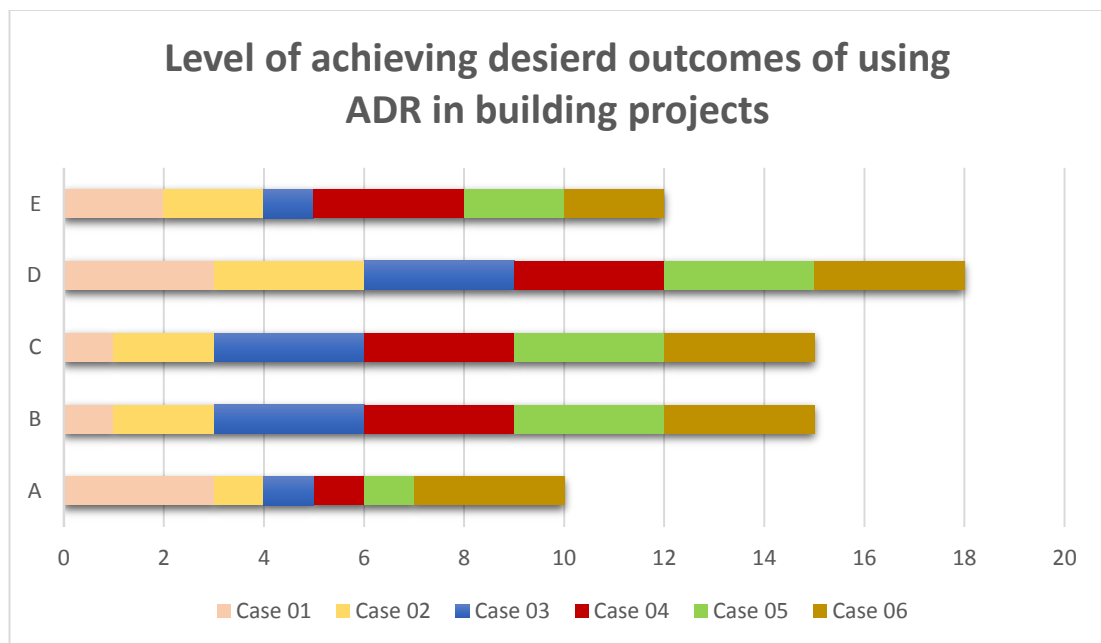


Figure 4.4. Graphical presentation of the level of achieving desired outcomes

A - Binding nature of the decision

B - Less duration of the proceedings

C - Less cost involved

D – Parties’ ability to control over the proceedings

E – Preservation of relationship between parties

From Table 4.6 and Figure 4.4, it is evident that;

- Mostly achieved outcome is “Parties ability to control over the proceedings” though the flexibility of the proceeding is not the top most influencing factor to go for ADR.
- Least achieved outcome is “binding nature of the decision” whereas it was become the top most influencing factor to go for ADR at the preliminary interview analysis.
- Achieving less time and less cost depends on the used ADR method and it can be highly or averagely achieved accordingly
- Preservation of relationship between the parties have been averagely achieved in cases

As the next objective of the research study, reasons for less achievement of these desired outcomes of ADR have been identified and recommendations to enhance the achievement level have been proposed.

4.3.6 Recommendation for enhance the level of achieving desired outcomes by using ADR

The researcher identified that the reasons for less achieving of desired outcomes by using ADR shall be identified prior providing recommendations to enhance the achievement level. Therefore, the interviewees were questioned regarding the common reasons of not achieving the desired outcomes through ADR during the case study interviews.

4.3.6.1 Common reasons for less achievement level of desired outcomes of using ADR

As stated by the interview respondents, common reasons for not satisfactorily achieving the desired outcomes of using ADR for resolving construction disputes in building projects can be listed as per Table 4.7.

Table 4.7. Reasons for less achievement level of desired outcomes of ADR

Reason	CS	CS	CS	CS	CS	CS
	R1	R2	R3	R4	R5	R6
Restrict to follow Standard bidding document	x	x	x	x		
Unawareness of the initial stages of the ADR practices	x	x	x	x	x	
Attitudes of the parties	x	x	x	x	x	x
Mal practises in the industry			x		x	
Incapacity/less availability of professionals	x		x		x	x

All the respondents agreed that the most critical reason for less success in the ADR is the attitudes of the parties. CSR – 6 strictly highlighted that the ego of parties destroys the success of ADR process in most of the time. As stated by CSR-3 the Engineer’s decision is honoured most of the time if the parties are supportive and have real intention to finish the project, however nowadays there is no such situation in Construction projects. This reason affects most of the desired outcomes identified in above sections such as preservation of relationship between parties, less time involvement, less cost involvement and binding nature of the decision.

Majority of the respondents agreed that restrict to follow standard bidding document is another reason for not achieving desired outcomes of the ADR process. As stated by CSR2 most of the Sri Lankan building projects used standard bidding documents published by CIDA or FIDIC according to the procurement plan of the project. However, the respondents collectively agreed that most of the time the default Dispute resolution clause remains as it is without customizing according to the nature of the project. Therefore, when a dispute arises parties follow the standard procedure whether it suits their dispute or not. CSR-6 highlighted that as an example Dispute Adjudication Board (DAB) mentioned in standard documents can be standing board or ad hoc board and parties have to decide what to do according to the nature of their project. Further, CSR – 6 stated that where there is a standing DAB the disputes can be resolved at the first instance than in ad hoc procedure. This reason affects the desired outcomes identified in above sections such as less time involvement, less cost involvement and

binding nature of the decision. Therefore, better selection of ADR methods in accordance with the project can aid to achieve the effectiveness of using ADR.

Similarly, unawareness of initial stages of ADR practices is again leads parties to be less succeeded in ADR. As CSR-3 stated most of the time negotiation and mediation are not practised much in Sri Lankan building projects due to the unawareness of benefits of those. In another point of view this factor indirectly linked with the restriction to use ADR processes in standard bidding documents since no special provision has been given to mediation or negotiation in most commonly practising SBDs in Sri Lanka. This reason mainly affects the time and cost of the ADR procedure. If parties stopped at the initial stages they can save their time and cost.

According to the views of the majority, another highly affecting reason for less achieving level of outcomes is the incapacity of available professionals or less availability of suitable professionals to act as the neutral third party to ADR process. As CSR -5 highlighted, most of the counsellors are not capable enough to handle construction industry disputes. He further stated that if parties use a lawyer as the arbitrator /adjudicator/ mediator in a construction dispute they may not get the favourable decision in point of technical and contractual aspects. Therefore, this will affect the binding nature of the decision, time and cost of the ADR process.

Malpractices in the industry is another reason for not achieving the desired outcomes of ADR as stated by two respondents. According to CSR-5, some professionals adhered to certain procedures to follow in ADR proceedings and because of that the parties may not get the desired outcomes such as less cost less time and sometimes the flexibility of parties to control the proceedings.

4.3.6.2 Recommendation to enhance the level of achieving desired outcomes of ADR

In the same case study interview the respondents were questioned about recommendation to enhance the level of achieving desired outcomes of using ADR for resolving disputes in building construction projects in Sri Lanka. Those recommendations have been listed in Table 4.8.

Table 4.8. Recommendation for enhance the level of achieving desired outcomes of ADR

Reason	CS	CS	CS	CS	CS	CS
	R1	R2	R3	R4	R5	R6
Introduce initial level of ADR practices to standard bidding documents	x	x	x		x	
Give some legal validity to the decisions of initial ADR methods	x	x	x			x
Give awareness of initial level of ADR methods	x	x	x	x	x	x
Develop guidelines to select the best ADR process as per the characteristic of the project/dispute	x	x	x	x	x	
Introduce full time academic courses to produce qualified professionals	x		x	x		x
Prepare standards for payments procedure of counsellors	x		x	x		x

Majority of the respondents discussed about the importance of promoting the opportunity to use initial levels of ADR methods such as negotiation and mediation. CSR-6 with conviction stated that it must be the first and foremost thing to be done in order to achieve desired outcomes of ADR in building projects in Sri Lanka. As mentioned by CSR-6 the attitudes of parties can be changed by educating them on the benefits of initial levels of ADR methods. Similarly, CSR-3 highlighted that if parties try to resolve their disputes at initial levels they can save time, cost and their business relationships. Since building projects are having less time period regarding infrastructure projects, achieving a binding decision at less time is paramount important to complete the project within time limits.

Introducing initial level of ADR methods in standard bidding documents and giving the legal validity to the decision given by the neutral third party of such methods were also identified by the respondents as recommendations to enhance the level of outcomes. CSR -6 emphasized that processes like adjudication can be converted into having legality by introducing statutory adjudication to Sri Lanka. In many countries statutory adjudication is successfully practicing for resolving payment issues in construction projects. In addition, people may tend to use them rather than going for

adjudication or arbitration if CIDA can accommodate mediation and negotiation as dispute resolution methods at first instance. In the point view of CSR-2, many of the disputes need not to be addressed in adversarial processes like arbitration and can simply be resolved at initial stages.

Apart from the above recommendations four respondents out of six proposed that it is better to have some kind of guideline to assist parties to select a most suitable ADR method in accordance with the nature of their project and dispute. CSR-5 mentioned that the parties can draft their dispute resolution clauses in the Contract by following this kind of a guideline. On the other hand CSR-2 mentioned that proposing such guideline may take much time and that have to be tested in the industry for a considerable time period. However, the researcher too agreed with the respondents view and identified it as a lack in our country. At least it is better to have a selection criteria in terms of cost and time available with the parties.

In previous section it was identified that some malpractices and not having qualified professionals to hear the disputes are some other reasons why the parties not getting the desired outcomes of ADR processes. As an answer for that the majority of respondents proposed to have full time academic programme in universities regarding this subject and to standardise the process of becoming arbitrator/ adjudicator/mediator.

Additionally, some respondents highlighted that there shall be a standard fee scheme for the professional who are hearing disputes and as this can be also a barrier to achieve expected outcomes of ADR process. As an example CSR-4 highlighted that in some cases adjudicators are not giving the decision on time since parties are not paying them. Therefore, the researcher also agreed with the respondents that there shall be standard payment procedures in order to enhance the level of achieving desire outcomes of using ADR for resolving disputes in building projects in Sri Lanka.

Accordingly, the researcher had identified the reasons affecting to decrease the level of achieving desired outcomes of the parties by using ADR and six number of recommendations were discussed commonly to mitigate those reasons to enhance the level of effectiveness. The relationship between all above identified points were

mapped to a cognitive map as per Figure 4.5. Middle of the cognitive map clearly shows the top most desired outcomes of using ADR and left hand side demonstrates how the desired outcomes are affected by various reasons. Colour coded arrows in between them provides easy identification of affecting reasons for less achievement of one particular desired outcome. Right hand side of the map demonstrates the recommendations to enhance the level of achieving the desired outcomes and colour coded arrows clearly provide direction to the best recommendations for achieving a particular desired outcome.

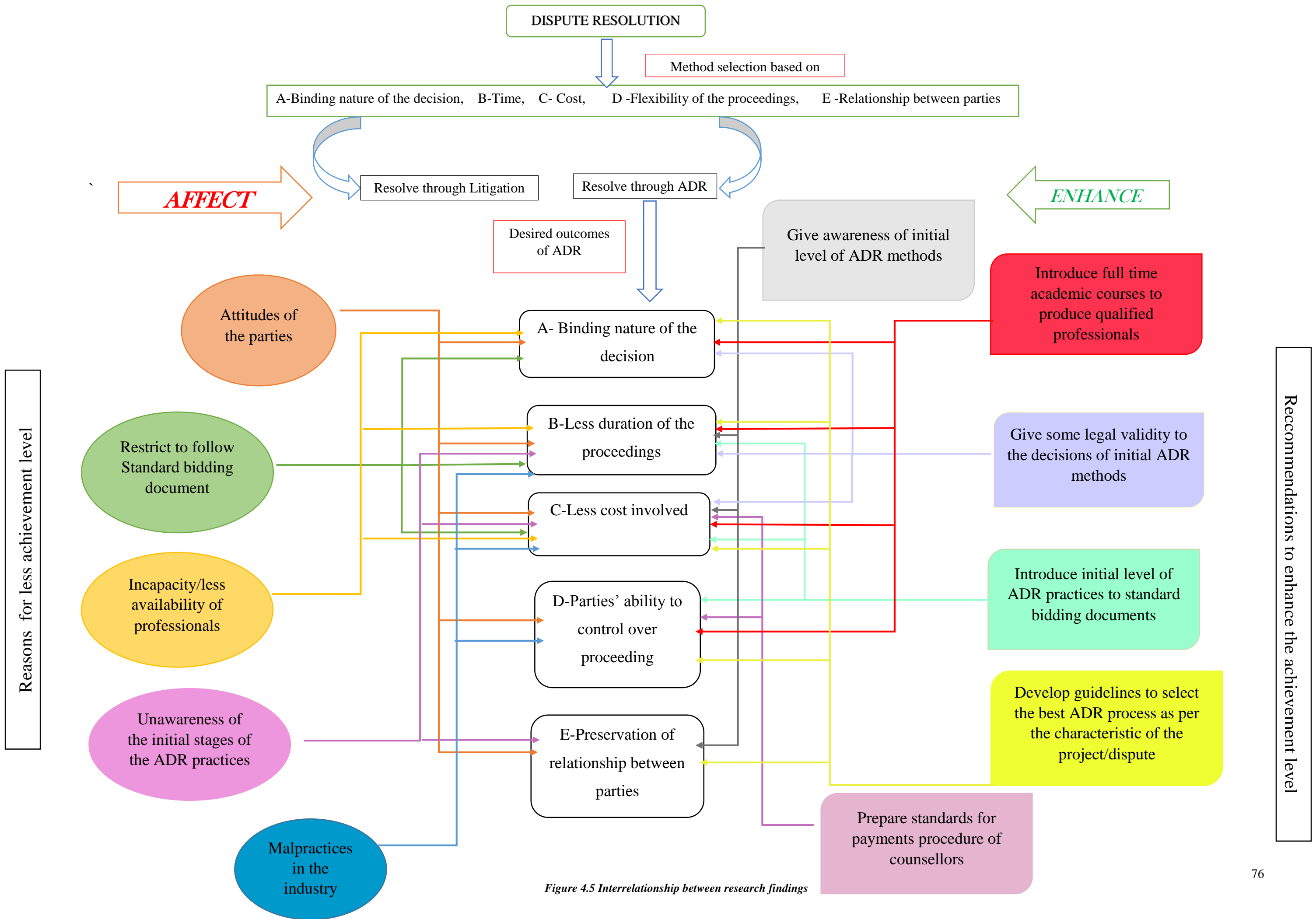


Figure 4.5 Interrelationship between research findings

4.4 Summary

This chapter presents a detailed analysis regarding research findings and deliver an illustration on a proper relationship among desired outcomes, reasons for less level of achieving desired outcomes and recommendations to enhance the level of desired outcomes of using ADR in building projects in Sri Lanka. Furthermore, data collected through expert interviews and case studies were analysed in this chapter by achieving the research objectives of the researcher.

Accordingly, under first part of the analysis the data collected via preliminary expert interviews were analysed and identified factors influencing the selection of ADR for dispute resolution and its corresponding desired outcomes related to the Sri Lankan context. Those desired outcomes were examined under case studies and analysed the level of achieving desired outcomes. Finally, recommendations were given to enhance the achievement level of identified desired outcomes of ADR by mitigating the loopholes recognised at case study interviews.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Completion of all objectives to conclude the research study were presented in this chapter and recommendations for enhancing the level of achieving desired outcomes of using ADR for building projects in Sri Lanka, prevailed restrictions to carry out the research and identified supplementary research directions have been deliberated under subsequent sections.

5.2 Conclusions

The inhabitant characteristics of the construction industry have created a high vulnerability to disputes among parties. Disruptions create through such disputes typically includes prevention of successful implementation of the Contract and may lead to many impacts like time and cost wastages, fracturing the business relationship of the parties involved, etc. Attaining a solution to disputes in construction sector is not always possible and successful since the disputes are rather complex and unique to the industry. Furthermore, dispute resolution is influenced by a large number of external factors initiating from political, financial, economic, social and environmental basis.

Recently, construction industry practitioners over the world and similarly in Sri Lanka, move towards Alternative Dispute Resolution (ADR) approaches largely as a consequence of the time factor and other beneficial outcomes in which the litigation process failed to meet. However, it is questionable whether parties received the expected outcome of using ADR despite of litigation. Hence the importance of evaluating the level of achieving desired outcomes of using ADR in Sri Lankan building projects was identified by the researcher as the research gap and recommended some suggestions to enhance the level of achieving desired outcomes by using ADR for dispute resolution.

Four objectives were formed with the intention of achieving the research aim and the following paragraphs describe conclusions for the full study by briefing the same in accordance with aforementioned objectives.

Attainment of the objective 1: To review the available Alternative Dispute Resolution methods in the construction industry with their advantages and disadvantages

Identification of available ADR methods in the construction industry was carried out under the literature review and sub section 2.4.1 described about commonly using ADR methods in construction industry such as negotiation, mediation, adjudication, arbitration and a few hybrid methods. The pluses and minuses of aforementioned approaches were highlighted within the same sub section. Sub section 2.4.2 has reviewed the current practice of the Sri Lankan construction industry and it concluded mentioning that there was no platform for hybrid processes in our industry yet.

Attainment of the objective 2: To critically evaluate the factors influencing the selection of Alternative Dispute Resolution for construction projects in Sri Lanka

Under the sub section 2.5, the researcher discussed and identified nine (9) common factors which compel the parties to use ADR as per the data collected from previous researches. Accordingly, time, cost, relationship between parties, degree of confidentiality, binding nature of the decision, enforceability of the decision, level of complexity of the dispute and neutrality & fairness were decided as the common factors influencing parties to use ADR rather than litigation in order to resolve their disputes. Thereafter, the corresponding desired outcomes which parties expected in relation with these factors were identified and discussed in detail under sub section 2.6.

Those identified nine (9) common factors influencing the use of ADR were tested in preliminary expert interviews in order to check whether the same scenario was applied for the construction industry in Sri Lanka. The most influencing factors which drive to use ADR for resolving construction disputes were also identified via same interviews. As a result, five highly influencing factors were identified namely as binding nature of

the decision, time, cost, flexibility of proceedings and the relationship between parties. Similarly, corresponding desired outcomes of each factor were determined respectively as binding nature of the decision, less duration of the proceedings, less cost involved, parties' ability to control over proceeding and the preservation of relationship between parties.

Attainment of the objective 3: To investigate the success level of highly influencing factors in terms of their respective desired outcomes of using Alternative Dispute Resolution in building projects in Sri Lanka

Five most desired outcomes of using ADR were evaluated under six (6) case studies to identify the level of achieving such outcomes of the building sector projects in Sri Lanka. Findings of case studies concluded that the highest achieved outcome was parties' ability to control over proceeding. Binding nature of the decision was the least achieved outcome and other outcomes were achieved in average level and depended on the nature of the ADR used. In a nutshell it can be stated that even though parties interested in using ADR for dispute resolution, they would not achieve the desired outcomes successfully due to many reasons.

Attainment of the objective 4: To propose recommendations to enhance the effective usage of Alternative Dispute Resolution in building projects in Sri Lanka

Barriers for successful achievement of desired outcomes of using ADR were identified via case studies and those have been discussed in sub section 4.3.6.1 of the data analysis chapter. According to the views of the majority, attitudes of the parties can have high impact on successful achievement of desired outcomes of using ADR. In addition, unawareness of initial stages of ADR methods, restricting to the standard bidding documents were also identified as loop holes of ADR practices which prevents the success of the ADR process.

Under the sub section 4.3.6.2, the research has discussed recommendations to enhance the level of achieving desired outcomes. The majority of respondents agreed that a considerable opportunity to practice non adversarial ADR processes like mediation

and negotiation would reduce the above discussed impacts and enhance the level of achieving most of the desired outcomes of ADR.

5.3 Recommendations

Subsequent recommendations can be made according to the results in this study.

- Create interest towards initial levels of ADR practices such as negotiation and mediation by accommodating provisions for such methods in standard bidding documents published by CIDA.
- Conducting awareness programmes among construction industry practitioners regarding the value of using initial level of ADR methods through CPD programmes and short academic courses etc.
- Take necessary actions to provide legal character to the decisions of first instance ADR methods currently practiced in the industry. As an example it is better to implement statutory adjudication procedure which aids to resolve disputes within a short time while providing a final and binding decision
- Develop guidelines to select the best ADR process as per the characteristic of the project/dispute. With the use of this kind of a guideline disputant parties are able to get an idea as to what the most appropriate ADR methods will be in accordance with the particular situation.
- Introduce full time academic courses to produce qualified professionals by academic institutes approved by University Grant Commission.

5.4 Limitations of the Research

A few limitations came across by the researcher when conducting the research are discussed here for the purpose of making the reader understood about the context in which the research was completed. Basically, there were a few limitations encountered by the researcher through the data collection stage. The major difficulty was to find cases related to the initial stages of ADR like mediation and negotiation. Respondents also mentioned that there were less cases available for mediation/negotiation. Therefore, all six case studies discussed in the research were related either with adjudication or Arbitration. This limited the researcher developing a generalized

output regarding the level of achieving desired outcomes of using ADR for dispute resolution in building projects.

5.5 Further Research Directions

Due to the fact that limited researches done on the subject, numerous other relevant aspects need to be studied and further investigated

- Effectiveness of training Quantity Surveyors as professionals to carryout ADR
- Effectiveness of using Standing Dispute Adjudication board in Road projects in Sri Lanka
- Effectiveness of using ADR in foreign funded projects

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APPENDIX 01: GUIDELINE OF THE INTERVIEW PART I

INTERVIEW GUIDELINE

The information from this interview will only be used in fulfilling the requirements for the subject BE 6404 - Dissertation on the topic **Evaluating the Success Level of Desired Outcomes of Alternative Dispute Resolution Methods in Building Projects in Sri Lanka**, under the Master's degree in Construction Law and Dispute Resolution, at the Department of Building Economics, University of Moratuwa.

The interviews will be conducted with four industry expertise who is having experience in Dispute Resolution and Claims Management and it has been structured in two sections to extract information regarding

- General Information
- Factors influencing the selection of ADR for dispute resolution in construction projects in Sri Lanka

Note taking and/or tape recording (**with permission of the interviewee**) will be used as the record keeping method while interviewing to maintain the accuracy of the data. However, to maintain confidentiality, the actual names of the interviewees will be not revealed in the report or any other documents relating to this study. The selected persons will be interviewed based on the following guidelines.

1.0 General Information

- 1.1. Name of the Interviewee (Optional) :
- 1.2. Name of the Organization (Optional):
- 1.3. Designation :
- 1.4. Experience (Years) :
- 1.5. Date of interview :
- 1.6. Venue :
- 1.7. Duration :
- 1.8. Contact Details Telephone:
E-Mail:

2.0 Factors influencing for use ADR to resolve construction disputes

2.1 As you think what are the factors influencing the selection of ADR to resolve construction disputes?

Description	Y /N	Rank
Time		
Cost		
Relationship between parties		
Degree of confidentiality		
Binding nature of the decision		
Enforceability of the decision		
Level of complexity of the dispute		
Neutrality and Fairness		
Flexibility of the proceedings		

APPENDIX 02: SAMPLE TRANSCRIPT OF THE INTERVIEW

PART I

INTERVIEW TRANSCRIPT

The information from this interview will only be used in fulfilling the requirements for the subject BE 6404 - Dissertation on the topic of **Evaluating the Success Level of Desired Outcomes of Alternative Dispute Resolution Methods in Building Projects in Sri Lanka**, under the Master's degree in Construction Law and Dispute Resolution, at the Department of Building Economics, University of Moratuwa.

The interviews will be conducted with four industry expertise who is having experience in Dispute Resolution and Claims Management and it has been structured in two sections to extract information regarding

- General Information
- Factors influencing the selection of ADR for dispute resolution in construction projects in Sri Lanka

Note taking and/or tape recording (**with permission of the interviewee**) will be used as the record keeping method while interviewing to maintain the accuracy of the data. However, to maintain confidentiality, the actual names of the interviewees will be not revealed in the report or any other documents relating to this study. The selected persons will be interviewed based on the following guidelines.

1.0 General Information

- 1.9. Name of the Interviewee (Optional) :R-101.....
- 1.10. Name of the Organization (Optional):
- 1.11. Designation : Managing Director.....
- 1.12. Experience (Years) : .18 years.....
- 1.13. Date of interview : .21/10/2019.....
- 1.14. Venue :
- 1.15. Duration : .1/2 hour.....
- 1.16. Contact Details Telephone: ..0773670101.....
E-Mail:

2.0 Factors influencing for use ADR to resolve construction disputes

2.1 As you think what are the factors influencing the selection of ADR to resolve construction disputes?

Description	Y /N	Rank
Time	Y	03
Cost	Y	02
Relationship between parties	Y	04
Degree of confidentiality	Y	05
Binding nature of the decision	Y	01
Enforceability of the decision	Y	04
Level of complexity of the dispute	Y	04
Neutrality and Fairness	Y	07
Flexibility of the proceedings	Y	06

APPENDIX 03: INTERVIEW GUIDELINE OF CASE STUDIES

GUIDELINE FOR CASE STUDIES

The information from this survey will only be used in the fulfilling the requirements for the subject BE 6404 - Dissertation on the topic of **Evaluating the Success Level of Desired Outcomes of Alternative Dispute Resolution Methods in Building Projects in Sri Lanka**, under the Master's degree in Construction Law and Dispute Resolution, at the Department of Building Economics, University of Moratuwa.

Note taking and/or tape recording (**with permission of the interviewee**) will be used as the record keeping method while interviewing to maintain the accuracy of the data. However, to maintain confidentiality, the actual project names will be not revealed in the report or any other documents relating to this study. The selected cases will be examined based on the following guidelines.

1.0 General Information

- 1.1 Name of the Project (Optional) :
- 1.2 Name of the Organization (Optional):
- 1.3 Date of interview :

2.0 Background of the Case

- 2.1 What are the basic details of the selected project?

- 2.2 What is the background of the dispute and parties to the dispute?

- 2.3 What was the selected ADR method?

3.0 Evaluating the level of achieving desired outcomes of using ADR

3.1 Please mention whether the parties achieved the below listed highly desired outcomes of using ADR. Justify your answer

- A- Binding nature of the decision

- B- Less duration of the proceedings

- C- Less cost involved

- D- Parties' ability to control over proceeding

- E- Preservation of relationship between parties

3.2 If no, please mention the factors affecting the less level of achieving the desired outcomes

3.3 Suggest recommendations to enhance the level of achieving desired outcomes of using ADR to select disputes in Building projects in Sri Lanka.

APPENDIX 04: SAMPLE TRANSCRIPT OF CASE STUDY INTERVIEW

INTERVIEW TRANSCRIPT –CASE STUDIES

The information from this survey will only be used in the fulfilling the requirements for the subject BE 6404 - Dissertation on the topic of **Evaluating the Success Level of Desired Outcomes of Alternative Dispute Resolution Methods in Building Projects in Sri Lanka**, under the Master's degree in Construction Law and Dispute Resolution, at the Department of Building Economics, University of Moratuwa.

Note taking and/or tape recording (**with permission of the interviewee**) will be used as the record keeping method while interviewing to maintain the accuracy of the data. However, to maintain confidentiality, the actual project names will be not revealed in the report or any other documents relating to this study. The selected cases will be examined based on the following guidelines.

1.0 General Information

- 1.4 Name of the Project (Optional) :..Case Study 02.....
- 1.5 Name of the Organization (Optional):
- 1.6 Date of interview : ..01/11/2019.....

2.0 Background of the Case

2.1 What are the basic details of the selected project?

- Related to a twelve storey building construction work in Colombo district
- The Standard Bidding Document used for the project was FIDIC Conditions of Contract for Construction- Employer designed works 1999 (Red book -1st edition).
- Contract, the duration of the Contract is 15 months.

2.2 What is the background of the dispute and parties to the dispute?

Contractor had not received the vacant site possession and hence, the Contractor incurred a delay and additional cost. Therefore, the Contractor put an Extension of time and associated cost claim whereas the Engineer rejected the claim

Claimant – The Contractor

Respondent – The Employer

2.3 What was the selected ADR method?

Dispute Adjudication Board – ad hoc

3.0 Evaluating the level of achieving desired outcomes of using ADR

3.1 Please mention whether the parties achieved the below listed highly desired outcomes of using ADR. Justify your answer

A-Binding nature of the decision- Not achieved

Decision given by the DAB was a dissenting decision. The claimant of the dispute was not happy with the decision and sent a Notice of Dissatisfaction (NOD) by referring the dispute to Arbitration.

Further, one of the DAB member had been resigned after the decision and the claimant argued that the remaining members of the DAB does not conversant with the dispute.

B-Less duration of the proceedings –Averagely achieved

The dispute adjudication board provided there decision with a small delay.

C- Less cost involved- Averagely achieved

As a result of the delay in giving decision parties incurred additional expense

D-Parties' ability to control over proceeding- Highly achieved

Parties had full freedom to select DAB members. This was clearly shown at the stage where they put a NOD based on the incapacity of the DAB members

E-Preservation of relationship between parties- Averagely achieved

One party was not happy with DAB process.

3.2 If no, please mention the factors affecting the less level of achieving the desired outcomes

- Only using Standard bidding document
- Unawareness of the initial stages of the ADR practices
- Self-esteem of the parties

3.3 Suggest recommendations to enhance the level of achieving desired outcomes of using ADR to select disputes in Building projects in Sri Lanka.

- Introduce mediation to Sri Lankan standard bidding documents
- Provide legality for Adjudication decision
- Give awareness of initial level of ADR methods
- Develop guidelines to assist parties when selecting ADR method