

**APPLICATION OF EARLY NEGOTIATION AS A
DISPUTE AVOIDANCE MECHANISM IN SRI LANKAN
ROAD CONSTRUCTION PROJECTS**

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Degree of Master of Science

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University of Moratuwa

Sri Lanka

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Thesis/Dissertation submitted in partial fulfillment of the requirements for the degree
Master of Science in Construction Law and Dispute Resolution

Department of Building Economics

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DEDICATION

To my
Mother & Father...

ACKNOWLEDGEMENT

Great assistance was received in various ways from many professionals and organisations for the successful completion of this research study so that I take this opportunity to express my gratitude towards all of them.

First of all, I would like to convey my heartfelt thanks to my supervisor Ch. QS. Indunil Seneviratne the Senior Lecturer, for guiding, supervising, encouraging and corrective advising me on this study, up to the final outcome of this work.

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ABSTRACT

Conflicts are very common in construction industry, mainly due to the different objectives of the parties which are intended to be acquired through the project. The parties to construction projects should take all reasonable efforts to resolve their conflicts without letting those developing into disputes because unattended conflicts possibly grow fast, spread and create unpalatable side-effects which are not easy to handle. Out of many dispute avoidance mechanisms, early negotiation has identified as an important reactive measure to be used due to many advantages inborn.

Purpose of this research was to improve the effectiveness of early negotiation practice as a disputes avoidance mechanism in Sri Lankan construction industry. A literature review and pilot survey were carried out to identify the factors influencing on negotiation failures at conflict stage. The most significant factors causing failure in early negotiation were identified via questionnaire survey and data analysis. Recommendations to overcome such barriers were identified via interview survey and contents analysis.

The findings of the study reveal that (a) unawareness in contract/legal terms and interpretations, (b) poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics, (c) insufficient level of authority for party representatives, and (d) attitude of contractor representatives that “we can easily deal with the Employer are the highly influencing failure factors of early negotiation.

It is concluded that “early negotiation as dispute avoidance mechanism” has to develop in respect of all aspects such as awareness, skills, attitudes and practice. However most important area to be concerned is concluded as “skills” of professionals who plays major role in negotiation table.

Key words: Conflicts, Dispute avoidance, Early negotiations, Road construction projects

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LIST OF ABBREVIATIONS

ADR	-	Alternative Dispute Resolution
CoC	-	Conditions of Contract
CPD	-	Continuous Professional Development
DAB	-	Dispute Adjudication Board
FIDIC	-	International Federation of Consulting Engineers
RII	-	Relative Importance Index

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CHAPTER 01

INTRODUCTION

CHAPTER 01

INTRODUCTION

1.1 Background

Construction projects are creations of temporary congregated multi-organisations, whose main intension is to complete the particular project in a successive manner, through a collective effort. This temporary congregated multi-organisations required interacting multiple subsystems bound each other by contractual and/or functional relationships due to the complexity of project environment. Yet, each party has their own objectives and expectations (Murdoch & Hughes, 2008) such as while the employer aimed to get best product at least cost, the contractor aimed to gain maximum profit from the project. Thus two parties have opposite interests in performing their role in a construction project (Cartlidge, 2009).

Compared to the other industries, construction industry is unique by nature (Cartlidge, 2009) due to its divergence in economic, technological and sociological environment (Murdoch & Hughes, 2008). Thus construction projects are complex which creates numerous changes to the as-planned work. Therefore, any construction project by its very nature involves certain unavoidable risks (Murdoch & Hughes, 2008). Murdoch and Hughes (2008) further explains both the boundary of the construction industry and relationships between the parties are not always clear. Therefore, performance of construction projects are based on carefully drafted sophisticated contract document (Cheung, Wong, Yiu & Kwok, 2008) which shows parties contractual and functional relationships.

Construction projects are highly connecting with conflicts due to divergences of parties objectives intended to achieve through the project. These divergences or conflicts are very common as well as unavoidable (Murdoch & Hughes, 2008). Simons (1992) define conflict as “any discrepancy of interest, objectives or priorities between individuals, groups or organizations, or non-conformance to requirements of a task,

activity or process” (p.460). Moreover Brown and Marriott (1993) stating that “conflict is doubt or questioning, opposition, incompatible behaviour, controversy or antagonistic interaction and disputes is one of the range of events considered as conflict”. Thus it is clear that conflicts occur due to the incompatibility of interest.

As discussed by Kumaraswamy and Yogeswaran (2003), “a dispute can be said to exist when a claim or assertion made is made by one party is rejected by the other party and that rejection is not accepted”. This implied that, disputes take place when the conflicting parties express a prolonged disagreement or heated debate over the conflicting matter.

Hence, it is clear that conflicts can be managed, and through that it can be prevent, conflicts developing into disputes (Fenn, Lowe & Speck, 1997). The detrimental side of developing conflicts into disputes includes increasing project cost, project getting delay, reducing productivity, loss of profit or damage in business relationships (Jaffar, Tharim & Shuib, 2011).

In case of conflicts developed into disputes, parties have to use dispute resolution mechanisms such as adjudication and arbitration as agreed in the contract (FIDIC, 2010). Arbitration is a common dispute resolution mechanism used in construction contracts which often associated with high costs and takes considerably long time. Thus it will harm the performance and project progress (Ramus, Birchall & Griffiths, 2007). Although adjudication was introduced and incorporated to contracts to overcome such drawbacks and facilitate work progress as an interim dispute resolution mechanism this was not using up to expected level in the construction industry.

Thus it is clear other than referring to costly and timely arbitration process, parties need to manage conflicts without being develop into disputes. Negotiation is best approach which can be used as dispute avoidance mechanism due to numerous advantages inherited such as cost effectiveness, informality, speediness, simplicity,

confidentiality, party autonomy and preservation of business relationship (Jayasena & Kavinda, 2012).

Negotiation is defined as an “interaction that occurs when two or more persons attempt to agree on a mutually acceptable outcome in a situation where their orders of preference for possible outcomes are negatively correlated” (Ren, 2002, p.120). Thus negotiation is a non-adversarial conflict management process where parties voluntarily involve in. However, in my own experience in respect of road construction projects in Sri Lanka, it is experienced that negotiations are continuously failed and developed conflicts into disputes.

1.2 Research problem

Since negotiation is not performing effectively as a dispute avoidance mechanism in present construction industry, it is a timely requirement to find out the practical issues of using negotiation to avoid conflicts rising into disputes. It is emergent in studying the means to improve the effectiveness of early negotiation, while focusing into minimise the failure factors of negotiation process, and focusing on recommendations to improve the effectiveness of negotiation as a dispute avoidance mechanism, in order to address implementation barriers.

1.3 Aim

The aim of the research study is to improve the effectiveness of early negotiation practice, as a disputes avoidance mechanism in Sri Lankan construction industry.

1.4 Objectives

The study followed four objectives:

01. To identify principles of negotiation for dispute avoidance

02. To identify prerequisites of successful negotiation practice in dispute avoidance
03. To assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry based on parameters established in the literature review and pilot study
04. To provide recommendations to improve the effectiveness of negotiation as a dispute avoidance mechanism in Sri Lankan Construction industry

1.5 Scope and limitations

The scope of the study was limited to, foreign funded road construction projects in Sri Lankan context.

1.6 Research methodology

A comprehensive literature survey was carried out to examine the principles of negotiation, practicing in the construction industry and to identify the prerequisites of negotiation, in order to successfully conclude a negotiation process. This has done based on reviewing current body of knowledge using various publications such as research papers, articles and books. The literature survey was mainly addressed the first two objectives of the study.

A pilot study with three experts in the construction industry was carried out in order to establish objective three since literature was not adequate in respect of negotiation as a dispute avoidance mechanism in Sri Lankan context.

A questionnaire survey was carried out with industry experts, who are leading the field as, contract specialists, claims specialists and senior quantity surveyors who represent contractors and consultants in road construction projects of Sri Lanka, who have experienced in use of negotiation as dispute avoidance mechanism which practice,

prior to develop conflicts into disputes. This questionnaire survey was intended to achieve the third objective of the research which focused to assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry based on parameters established in the literature review and the pilot study.

Finally based on the knowledge gathered from the questionnaire survey, semi-structured interviews were conducted among selected four experts in order to fulfil fourth objective of the study that is to identify recommendations which required to improve the efficiency of the negotiation as a dispute avoidance mechanism in Sri Lankan construction industry.

1.7 Chapter breakdown

This dissertation comprise five chapters.

Chapter 1 – Introduction to the research with the research background, problem statement, aim, objectives, scope and limitations and methodology.

Chapter 2 – A critical review of literature regarding negotiation principles and prerequisites of a successful negotiation process, which is focusing on the first two objectives of the research.

Chapter 3 – Research methodology which explains the methods of data collection and analysis together with the justification for using the particular research approach.

Chapter 4 – An analysis of the research findings which is ultimately achieved the third research objective.

Chapter 5 – Conclusions of the research conversed in this chapter while asserting the recommendations for efficient implementation of negotiation as a dispute avoidance mechanism for the Sri Lankan construction industry. Further to that, opportunities for further researchers also providing through this chapter.

CHAPTER 02

NEGOTIATION AS A DISPUTE AVOIDANCE

MECHANISM

CHAPTER 02

NEGOTIATION AS A DISPUTE AVOIDANCE MECHANISM

2.1 Introduction

Chapter two demonstrates the current knowledge on negotiation and its application as a conflict management or dispute avoidance mechanism in construction projects (Figure 2.1). This chapter focused on, nature of conflicts in construction projects, necessity of conflicts being managed effectively without developing them into disputes and concepts of early negotiation practiced. Further it discusses prerequisites to be fulfilled in adopting negotiation as an effective dispute avoidance mechanism in construction projects.

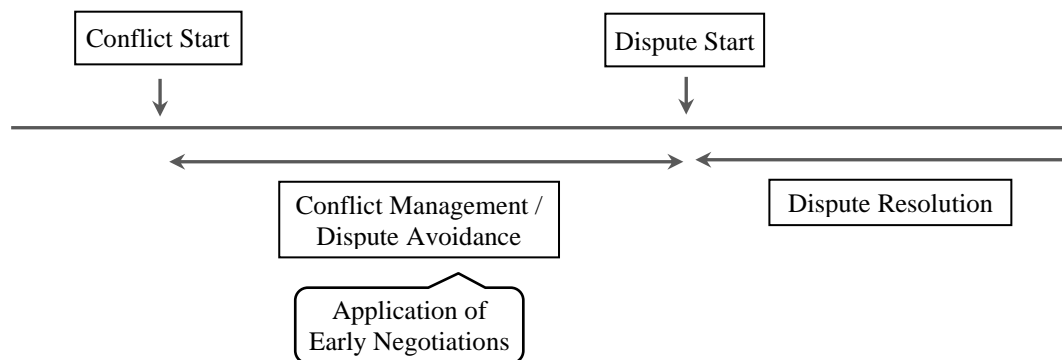


Figure 2.1: Application of early negotiation as a dispute avoidance mechanism

2.2 Conflicts in construction projects

Construction projects are complex due to various inherited features. Especially when a construction project is one and only of its own kind, there is no trial product to test first. Therefore, production of a construction project carries technical, economic and environmental barriers which are unforeseeable at the early stages of the project (Murdoch & Hughes, 2008). Further in a construction project it is clear there is diverse interests of project stakeholders (Ramus et al., 2007). Moreover each party has their own set of objectives and expectations to achieve via involving in the project

(Murdoch & Hughes, 2008). The employer aimed to get best product at least cost and the contractor aimed to gain maximum profit out of the project. Thus two parties has opposite interests in performing their part in a construction project (Cartlidge, 2009). Hence, project participants from different professional backgrounds, having different perceptions from the same project, creates a highly positive background for conflicts (Cakmak & Cakmak, 2014). If conflicts left unattended, it swiftly turns into disputes, which is considered as one of the major disruption factors of project success.

According to Oxford dictionary (2017), the word “conflict” defines as; “a serious incompatibility between two or more opinions, principles, or interests”. It further defines the term “dispute” as; “a disagreement between management and employees that leads to industrial action”.

Among construction professionals and in construction industry, the terms “conflict” and “dispute” use interchangeably and there are many confusions regarding the difference between these two terms (Cakmak & Cakmak, 2014).

According to Fenn et al. (1997) there is a clear difference between terms “conflict” and “dispute”. They shows that conflicts arise when there is an incompatible interest among project parties. If conflicts managed effectively, existence of a dispute resulting from the conflict also be managed. Further Mitkus and Mitkus (2014) pointed out that once a conflict developed into a dispute, it cannot be managed, it should be resolved by a third party namely court or arbitrators.

Further the idea supported with the provisions of standard forms of contract; FIDIC Gold Book which is providing a definition for “dispute” under general conditions of contract as follows.

“Dispute” means any situation where (a) one Party makes a claim against the other Party; (b) the other Party rejects the claim in whole or in part; and (c) the first Party does not acquiesce, provided however that a failure by the other Party to oppose or respond to the claim, in whole

or in part, may constitute a rejection if, in the circumstances, the DAB or the arbitrator(s), as the case may be, deem it reasonable for it to do so” (FIDIC, 2008).

2.3 Construction disputes and its effects

As argued by Vorster (1993) (as cited in Jaffar et al, 2011) a dispute could be defined as an argument or disagreement on an issue regarding project operations or procedures, typically resulting from a differences in two or more parties understanding of situation.

Steen (1994) pointed out “without a means to address them, minor issues can fester and grow, with crippling consequences for project participants”. Failure in managing conflict and developing such conflict into disputes can be lead to unsuccessful completion of the construction projects (Cakmak & Cakmak, 2014) and it always leads to cost overruns, delays or suspension of projects (Frank, 2012). Other than serious implications of disputes such as cost and time overrun, substantial loss of profit, getting project abandoned or failed is considered as worst among all.

Disputes are related with unique justiciable issues and necessitate to solve through mediation, negotiation, arbitration, etc. (Cakmak & Cakmak, 2014). Further unsettled disputes are interrupting the project progress and lessening the productivity; where, slowly proceeding adversarial processes of disputes again incur the cost, harm the relationships between project parties (Ren, 2002). Thus, project parties involved with the dispute as well as the construction industry also suffer from disputes (Ramus et al., 2007).

As stated by Frank (2012), “the ability, therefore, to resolve contract disputes quickly and effectively is the difference between a project that is completed on time and a failed capital investment that is completed only after many years of delay”. It is identified that most of disputes could be prevented through a contract drafted clearly

and fairly, efforts on early dispute resolution and effective contract management (Law Teacher, 2013).

Over years researches studied possibilities of adopting numerous new concepts and many have been introduced and practiced as claim prevention methods. However claim situations become more complex and confusing (Ren, 2002). Thus conflict avoidance is impossible (Kumaraswamy, 1997; Ren, 2002) but has to manage without being developing into dispute.

Thus Fairway (n.d.) pointed out “dispute avoidance should be the fundamental objective of all parties involved in construction. Achieving this goal require awareness, communication and records. Potential disputes should be identified, addressed and resolved at the earliest opportunity. If this strategy is not put in place, the inevitable consequences are time consuming and expensive disputes”).

Thus it is necessity to manage conflicts being developing into disputes in order to complete a construction project successfully.

2.4 Construction dispute avoidance

Though there are numerous downsides, generating disputes due to unsettled claims or conflicts are still common in construction industry (Ren, 2002). Therefore managing construction conflicts and avoid developing those into disputes are widely researched area throughout past several years (CRCCI, 2007).

Dispute avoidance measures undertake a vast area of study (Alwis, Abeynayake & Francis, 2016). This can be divided into two main categories that is pro-active measures and reactive measures. Many researchers identified pro-active actions to be taken as dispute avoidance mechanisms (Alwis et al., 2016; CRCCI, 2007) and they have established dispute avoidance models in order to avoid disputes even before it's born.

As pro-active measures identified was steps to be taken at the pre contract stage of the project such as risk allocation, specifying quality standards to follow, set key milestones, tailoring the particular conditions of contract, setting out a guideline for the consultant to get decisions without consent of the employer, review document errors, etc via proper dispute forecasting sessions (Alwis et al., 2016).

However with all such pro-active measures conflicts cannot be completely avoid it is only possible to minimise. Therefore it is necessary to identify reactive measures to be followed after arisen of conflicts between parties to contract in order to avoid conflict being developing into dispute and damage both parties' interests.

Skene and Shaban (2002) suggested seven considerations to avoid disputes as part of any strategy by considering both pro-active and reactive measures.

2.4.1 Early consideration and allocation of project risks

Marston (2000) stated that ambiguities in contracts and unreasonable allocation of risk among parties are major sources for construction disputes. Hence, many disputes can be avoid through clearly defined risks and responsibilities along with unambiguous terms and conditions (Skene & Shaban, 2002). Further make use of standard forms of contracts whatever possible is identified as fair and clear allocation of potential risks over parties to contract (Law teacher, 2013).

2.4.2 Communication of potential problems at the earliest opportunity

Early warning of a probable issue or claim has the advantage of avoiding many disputes (Skene & Shaban, 2002). The standard forms of contract widely used in all-over the world use “early warning” system or notice provisions which allow the employer or the contractor to inform to the other party regarding a matter that can give escalation to an increase in price, delay completion or impair performance of the work, as soon as they become aware of that (Campbell, 1997; FIDIC, 2010).

2.4.3 Realistic assessment of the value and impact of a claim

In many occasions, a realistic claim offered with the required supporting documentation and information to satisfy the consultant or other party may avoid a dispute (Skene & Shaban, 2002).

2.4.4 Appropriate attitude and commitment

According to Skene and Shaban (2002) many of construction disputes are preventing coming into resolution because of adversarial attitude and approach of the parties in solving problems. In order to overcome these type of issues U.S. Army Corps. of Engineers, developed the concept of “partnering” (Colangelo, 1995). Further Campbell (1997) described the principle of partnering as; the people and organizations who are involved with the project will agree to work together as a team, for their mutual benefit and the benefit of the project. Common goals in partnering arrangement are cooperation, shared objectives, adherence to common principles, team work, trust, fairness, honesty and professionalism - all in the interest of avoiding litigation (Skene & Shaban, 2002).

2.4.5 Education

Disputes can be avoided through educating the parties responsible for administration regarding contractual relationships encompass between the employer and the contractor including all the other stakeholders like consultant, subcontractors, surety and insurer (Skene & Shaban, 2002).

2.4.6 Early negotiations

Discuss separately under 2.5: Negotiation as a Dispute Avoidance Mechanism

2.4.7 “Thinking outside the box”

Due to the unique nature of construction industry, disputes are unpredictable and vary. Thus, the parties should be prepared and open minded to discover potential solutions and options which may not state in the contract (Skene & Shaban, 2002). Fisher, Ury and Patton (1991) pointed out that usually parties looking for a single answer keeping mind that they are right and they know the right answer. Further it shows parties avoiding start imaginative solutions with the fear of risking exposing bargaining position with disclosure of information.

2.5 Early negotiation as a dispute avoidance mechanism

Early negotiation is identified as suitable method of amicable settlement which has many benefits as a reactive measure in avoidance of disputes (Skene & Shaban, 2002).

Skene and Shaban (2002) further explains the parties of a construction project needs to take all reasonable efforts on dealing with problems then and there before it develops up to a dispute which has possibility of getting develop into a dispute. Further Cheung, Yin and Yeung, (2006) supported this by stating negotiation is first to use before any other methods.

This should be conducted between the Engineer to the contract and the Contractor which will be able to use timely, without any additional cost, or damaging relationships. Further Jayasena and Kavinda, (2012) shows that negotiation has many advantages such as high degree of control by the parties, voluntariness, confidentiality, flexibility, and speed to obtain, which makes it most preferred among parties.

Even though Alwis et al. (2016) pointed out “disputes are widespread in the construction industry”. This shows that the Contractor and the Engineer to contract has continuously failed in managing conflicts effectively at the site level.

2.6 Negotiation

Negotiation is a regular activity which everyone performs in their day to day life for different purposes (Fisher et al., 1991). It is a widely used in various purposes that can be different fields like social science, economics and politics.

Negotiation has defined by, Fisher et al. (1991) as “negotiation is a basic mean of getting what you want from others” (P.6) and by Ross, (2006) as “Negotiation is the sum of all the ways in which we convey information about what we want, what we desire, and what we expect from other people – as well as how we receive information about other people’s wants, desires and expectations”. Although both shows it as a “basic means of getting what you want from others” Fisher et al. (1991) further explicated that “it is a back-and-forth communication designed to reach an agreement” (P.6). The clarification provides the idea that “getting what you want from others” through negotiation is not a simple task.

Thus negotiation can be define in more detailed manner as “it is the interaction that occurs when two or more persons attempt to agree on a mutually acceptable outcome in a situation where their orders of preference for possible outcomes are negatively correlated” (Ren, 2002, p.120).

Further Yin and Law (2011) support this detailed definition by stating that negotiation is as an interaction process, which “negotiators attempt to reconcile their differences and reach mutual agreement by discussing their preferences” by “face-to-face interaction and the exchange of information, concessions, or compromise”

2.7 Negotiation styles

Negotiation can be categorised in a wide range of various forms, which considered as negotiation styles. Determining a negotiation style based on the issue is helpful in achieving an efficient congruence. This determination will help in selecting a best

negotiator, delegating power, keep influencing level, to set the tone and etc. (Cheung et al., 2006; Cheung et al., 2008). Hence, determining a negotiation style is having a significant importance in negotiation process.

According to Cheung et al. (2006) negotiation styles are often conversed conferring to their conflict management style. Both Cheung et al. (2006) and Cheung et al. (2008) classified negotiation styles under five headings; (1) integrating, (2) avoiding, (3) obliging, (4) dominating and (5) compromising which discussed in detail as follows.

2.7.1 Integrating

Try to integrate ideas with the other party to come up with a decision jointly while finding solutions to the problem that satisfies expectations and compromise can be reached by using “give and take” approach (Cheung et al. 2008).

Further Cheung et al. (2008) explains they tend to exchange accurate information and bring all concerns out in the open try to solve the problem together by using best possible way.

2.7.2 Avoiding

As per the word implies, these negotiators not willing to negotiate and do not practice it unless it is compulsory for them to do. During the negotiating, avoiders like to avoid and walk away from the challenging situations of negotiating. Thus they are called as tactful and sensitive group of negotiators (Thomas & Kilmann, 2010).

2.7.3 Obliging

Generally try to consider concerns of the other party by accommodating their requirements and often came up with suggestions and allow concessions. Try to avoid deadlocks and avoid keeping conflict with the other (Cheung et al. 2006).

2.7.4 Dominating

Tend to govern the negotiation process by using expertise, authority and power make a decision in favour of his own. Highly influence to get his ideas accepted by the other party. These type of negotiators rarely concern on the value of relationships, whether business or private (Cheung et al., 2006; Cheung et al., 2008).

2.7.5 Compromising

Compromising negotiators are preferred doing what is reasonable, feasible, practical and acceptable by all parties engaged in the negotiation process (Thomas & Kilmann, 2010). Generally propose fair and middle grounds to break deadlocks (Cheung et al., 2006). Compromisers are fitted in the process when time is limited as their tendency is towards to finish the process quicker. Thus compromising negotiators speed up the negotiation process and make concessions very swiftly (Thomas & Kilmann, 2010).

2.8 Negotiation strategies

Negotiation strategies are recognised as important area of negotiation process (Fisher et al., 1991; Tenbergen, 2001; Reyes, 2014). Three types of negotiation strategies identified very early stage by Fisher et al. (1991) that is (1) soft negotiators, (2) hard negotiators, and (3) principled negotiators. Further Fisher et al. (1991) compared the three types of negotiation strategies and analysed them as follows;

Table 2.8: Principled negotiation vs. soft and hard negotiation

Problem		Solution
Positional Bargaining: Which Game Should You Play?		Change the Game - Negotiate on the Merits
Soft	Hard	Principled
Participants are friends.	Participants are adversaries.	Participants are problem-solvers.

The goal is agreement.	The goal is victory.	The goal is a wise outcome reached efficiently and amicably.
Make concessions to cultivate the relationship.	Demand concessions as a condition of the relationship.	Separate the people from the problem.
Be soft on the people and the problem.	Be hard on the problem and the people.	Be soft on the people, hard on the problem.
Trust others.	Distrust others.	Proceed independent of trust.
Change your position easily.	Dig into your position.	Focus on interests, not positions.
Make offers.	Make threats.	Explore interests.
Disclose your bottom line.	Mislead as to your bottom line.	Avoid having a bottom line.
Accept one-sided losses to reach agreement.	Demand one-sided gains as the price of agreement.	Invent options for mutual gain.
Search for the single answer: the one they will accept.	Search for the single answer: the one you will accept.	Develop multiple options to choose from; decide later.
Insist on agreement.	Insist on your position.	Insist on using objective criteria.
Try to avoid a contest of will.	Try to win a contest of will.	Try to reach a result based on standards independent of will.
Yield to pressure.	Apply pressure.	Reason and be open to reasons; yield to principle, not pressure.

Source: Fisher et al. (1991)

Principled negotiation strategy is looking for collective outcomes, and do it through side stepping obligation to relevant positions. Principled negotiators focus on the dispute, not on the characteristics or feelings of the people involved in the process. They differentiate people from the problem, look for interests, get rid of bottom lines, and try to come to a target oriented outcome which is based on standards (Fisher et al., 1991).

Thus Fisher et al. (1991) recognise principled negotiation as the best problem-solving mechanism which focusing on actual interests of the parties hidden behind the screen. However in recent studies researchers tried to move beyond the principled negotiation in order to bring light to actual challenges face in the practical scenarios (Tenbergen, 2001; Reyes, 2014).

In his study, Tenbergen (2001) shows principled negotiation is too soft and it is not significantly deals with the claiming value other than creating value of the negotiation process. This was supported by recent study by Baduge and Jayasena (2016) concluding their study “the parties shall have intention to negotiate based on both position and interests in order to reach a settlement”. Further Tenbergen (2001) has proposed new paradigm of negotiation strategies such as “conditional principled negotiation” which is hardened negotiation process while using favourable outcomes of original principled negotiation.

Reyes (2014) argues that concept of principled negotiation which was set “as an all-purpose strategy of negotiation” has failed through last two decades of practice. The study recommends using “a variety of strategies designed to achieve different goals”, other than trying to use principled negotiation as “all-purpose” strategy in every case (Reyes, 2014).

2.9 Negotiation process

Negotiation is a process of submission and consideration of offers among parties whose main focus is to reach an agreement (Fisher et al., 1991). Negotiation process can be divided into main three stages, that is, pre-negotiation stage, negotiation stage and post negotiation stage (Baduge & Jayasena, 2016; Ren, 2002).

2.10 Prerequisites for a successful negotiation

Various researches identified different prerequisites or success factors which required to practice negotiation successfully considering overall negotiation (Fisher et al., 1991) and particularly on dispute resolution mechanism in construction (Baduge & Jayasena, 2016; Ren, Shen, Xue, & Hu, 2011; Ren, 2002). However using negotiation as a dispute avoidance mechanism at site level negotiation is not widely studied area. Therefore following twelve facts identified by reviewing and synthesis of existing body of knowledge are prerequisites to best performance of negotiation in different fields of negotiations.

2.10.1 Awareness on benefits of avoiding dispute using negotiation

Early negotiation is a reactive measure to deal with dispute avoidance in construction projects (Skene & Shaban, 2002). Since it is a voluntary process conducted while project is progressing parties are able to keep high degree of control to themselves, keep confidentiality and flexibility (Jayasena & Kavinda, 2012). Further they can speed-up negotiation process without any difficulty. Yiu and Lee (2011) shows that it as the most cost-effective way to resolve construction disputes.

Furthermore, Ren et al. (2011) identified that “limited or biased information” provide as one main drawback in dispute resolution by third party. Since early negotiation conducted between the project team members by themselves using negotiation helps to avoid.

Thus negotiator’s awareness of benefits encountered with early negotiation at site level can keep real interest to avoid issues being developed into dispute (Baduge & Jayasena, 2016; Ren et al., 2011). Unawareness on benefits of avoiding dispute using negotiation is one of the factors influencing on negotiation failures at conflict stage (Fact 01)

2.10.2 Awareness on drawbacks of developing dispute

Unresolved conflicts have several knock-on effects which are not clearly visible. In construction conflicts parties cannot simply walk away from site level negotiation unless they are willing to develop conflict into dispute and resolve through ADR mechanism agreed in the contract (Ren et al., 2011). Developing issues into disputes and dragging into ADR process has many drawbacks such as high cost, high time taking to resolve, loss of goodwill, loss of confidentiality and loss of relationship (Jayasena & Kavinda, 2012; Ren, 2002).

Worst drawback is higher possibility of occurring saviour cash flow issues and loss of financial capacity to continue with work due to delay in reaching settlement. This causes project getting abandoned or failed to continue progressing (Cakmak & Cakmak, 2014). This will cause damage both the parties in direct (plant and machinery idling, financial interruptions, project management difficulties etc.) and indirect ways (reputation issues, contract administration difficulties, project delays etc.) (Ramus et al., 2007).

Thus, party representatives' awareness on drawbacks inherited with getting conflicts develop into disputes and ADR mechanisms helps to create real interest to avoid disputes. Unawareness on drawbacks of developing dispute is one of the factors influencing on negotiation failures at conflict stage (Fact 02)

2.10.3 Awareness on contractual and legal provisions

Majority of construction conflicts create based on rights and obligations of the parties. Therefore, negotiations is greatly influenced by the governance of contract. Parties to construction projects are always bound by a sophisticated contract including carefully drafted terms and conditions (Cheung et al., 2008).

According to Ren et al. (2011), it is not a negotiation about “how much” but it is about “whether parties are entitled based on the contractual provisions”. Thus, in negotiations, parties has to agree in principle on entitlement. Contractual provisions and/or objective criteria such as contract document, professional standards and decided cases shall be use as basis to decide the entitlements (Baduge & Jayasena, 2016).

Other than using decided cases as objective criteria, construction contracts shall flow in line with legal framework of the country as stated in the contract. Since issues may raise in connection with the contract but has no clear contractual grounds in conditions of contract (FIDIC, 2010).

Thus professionals with proper education and experience in both contractual and legal provisions related to construction law and dispute resolution representing both parties is vital to successfully perform in a negotiation. Unawareness on contractual and legal provisions is one of the factors influencing on negotiation failures at conflict stage (Fact 03)

2.10.4 Awareness on negotiation tactics

Negotiation tactics plays an important role in the negotiation process. Generally, these are somewhat hard to distinguish and used for various purposes. Tactics are most widely used when it targets to getting more out of negotiation (Steve, 2011). Knowing negotiation tactics makes negotiation flows.

a) Highball or lowball

Negotiators who use this tactic show an incredibly high, or incredibly low starting offers which will never be accepted by the other party. The message behind this type of an improbable high or low offer will influence the other party to re-think or re-assess his or her own starting offer and come closer to the resistance point. On the other hand the unrealistic value given by that party, appears towards to a more flexible and amicable concession. The risk of this tactic is the opposite one may

think that the total negotiation process is a waste of time (Lewicki, Saunders, & Minton, 2001).

b) Brinksmanship

Here, one party influentially pursues a series of conditions to the point at which the opposing party shall either accept or leave from the negotiation. This is a method of "hard nut" way to bidding in which one party pulls the other party into the "brink" or to the edge of what that party is able or capable to accept. Victorious brinksmanship simply makes the opponent that they have no more option rather agreeing to the given offer and there seems to any other alternative to the suggested proposal (Alvin, 1991).

c) Snow job

According to Lewicki, et al. (2001) negotiators, who use snow job tactic attempt to pressurise the other party using much of information. Thus, the opponent party face to a difficulty to conclude which information is relevant and important, and which information is irrelevant and not important to the aroused matter. Users of this tactic frequently use highly technical language with jargons to hide a simple answer for the questions raised by a non-expert in the field.

d) Flinch

Through flinching tactic, negotiators will be able to convert a heavy negative response of the opposing party into a suggestion. This tactic is gasping for air, yawning, or visible feelings of astonishment of shock (Steve, 2011).

Unawareness on negotiation tactics is one of the factors influencing on negotiation failures at conflict stage (Fact 04)

2.10.5 Awareness on handling negotiation deadlocks

A deadlock or an impasse is defined as a situation where negotiation lag and no parties forwarding towards a compromise (Fells, 1989). Further author shows it is less dangerous than a total breakdown for the reason that a deadlock can be effectively managed.

Studies on negotiation deadlocks has commonly identified it as an important area to carry out a negotiation successfully (Anderson, Chitwood, Hayden & Takemoto, 2008; Goldwich, 2010; Kariyawasam, 2016).

According to Kariyawasam (2016) negotiation deadlocks handling techniques which are mainly using in construction projects are (1) providing additional information, (2) impose a deadline, (3) motivate, (4) give negotiation power, and (5) change the levels in the organization.

a) Providing additional information

Each party involved in the negotiation process having their own excuses and reasoning outs for not being willing to move on the issue of the deadlock. They will create the deadlock based on the information they possess currently with them. But there can be some other important part of information, which has not been revealed by any party. That type of unrevealed information can be helpful to break the prevailing deadlock and which will make the process move on. For that genuine efforts and contribution of both parties, having an utmost importance towards an amicable settlement (Anderson et al., 2008; Kariyawasam, 2016).

b) Impose a deadline

It is common that most of negotiations, make its progress during its final stages, once the deadline approaches. Imposing the time pressure will be helpful to provide a motivation for the parties involved with the process to get things move again (Goldwich, 2010; Kariyawasam, 2016).

c) Motivation

Here, the main focus is to find out the possibility of financial affairs like enlarge loans, reduce earnest money of order; or adjust the condition of payment; in order to change the motive power (Kariyawasam, 2016).

d) Give negotiation power

During the second round of the negotiations, it provides a greater decision making power to the company representative. After evaluating all the facts, he will get the authority on the deal and the relevant parties should have to trust him for the decisions which he is going to make (Kariyawasam, 2016).

e) Change the levels in the organization

Frequently, deadlocks take place due to the lack of authority assigned to the negotiator to propose different solutions. In this kind of situations, it is the best option to transfer the authority to the people who have higher powers. They may in a quite comfortable situation to recommend or come up with more solutions in which they can agree or get flexible and that could get the whole negotiation process again to the former moving stance quickly (Anderson et al., 2008; Kariyawasam, 2016).

Unawareness on handling negotiation deadlocks is one factor influencing on negotiation failures at conflict stage (Fact 05)

2.10.6 Skills of dealing with the people

According to Yiu and Law (2011) “negotiation is a basic business survival skill” and Yiu and Lee (2011) added that skill is “nontechnical”. Further it is pointed out this “skill is seldom learned by construction practitioners as part of their formal education process but rather through experience” (Yiu & Law, 2011).

Considerably high level of interaction between negotiators involves in construction negotiations (Yiu & Law, 2011). Problem encountered with this is not simple and should not be unattended. Fisher et al. (1991) has stated that negotiators involved in negotiation, are not simply the business representatives of each side, but human beings with “emotions, deeply held values, and different backgrounds and viewpoints”.

This human aspect creates negotiation process difficult since people drive through emotions like anger, aggressive, unhappy and offended. Fisher et al. (1991) explicated that “their egos can be easily threatened” (p.14) and making things to get personal. This may result in confusing their perceptions with reality and difficulty in clear communication that is; failing to interpret correctly what other party says and difficulty in communicating what is needed to say (Fisher et al., 1991).

Shapiro (n.d) discussed more into detail that, once the parties are at the negotiation table, it should avoid the argument get personnel from the business level. Shapiro (n.d) further elaborated that each party have different perspectives hence it is worthwhile to express only the things which helpful to achieve a successful outcome. Moreover, Fisher et al. (1991) discussed that participants of the negotiation process should understand themselves as parties working different sides of the same matter. Hence, to achieve a positive solution they have to attack to the problem itself, not each other (p.11).

Hence, skills of successfully dealing with people can be considered as key area affecting negotiation outcome. Poor skills of dealing with the people is one of the factors influencing on negotiation failures at conflict stage (Fact 06)

2.10.7 Skills of using negotiation tactics

Although negotiators who representing parties are well aware on subject “negotiation tactics” it does not make them use such tactics at the negotiation table because it need significant level of skill.

Thus it is clear that when considering success factors behind the negotiation, habitual characteristics or personality traits of the negotiator are most critical. “Negotiators who are aware of their own personality traits can adjust their tactics, and they can also observe their disputing parties’ personality traits to make tactical adjustments in dealing with them” (Yiu & Lee, 2011). Other than above, all psychological skills discuss under fact no 06 that is, skills on dealing with the people shall be considered under this section.

Poor skills of using negotiation tactics is one of the factors influencing on negotiation failures at conflict stage (Fact 07)

2.10.8 Skills of handling negotiation deadlocks

Deadlocks in negotiations can be take place due to many reasons. Personality traits or attitudes leads to deadlocks (Yiu & Lee, 2011) and in most of conflicts parties’ belief of they are holding the right position drive negotiation to deadlocks. Further Fisher et al. (1991) writes these kind of negotiations negotiators get stressed.

Handling deadlocks and help other negotiators to overcome the situation to make negotiation flow is a skill which cannot expected from all professionals aware on deadlock handling techniques. Poor skills of handling negotiation deadlocks is one the factors influencing on negotiation failures at conflict stage (Fact 08)

2.10.9 Representative level of authority

Ren et al. (2011) stated that to make a successful conclusion in negotiation, properly defined representative's authority level will largely affect. According to Baduge and Jayasena (2016), it is important to have a representative officer in the negotiation team, who has the decision making power of that particular organization, so that it helps to take decisions at the negotiation table itself. Insufficient level of authority for representative is one the factors influencing on negotiation failures at conflict stage (Fact 09)

2.10.10 Focus on both interest and positions

Positions means what parties reveal that they want, where interests means the things that people really required. Fisher et al. (1991) establish in order to achieve successful outcome parties should focus on interests, not on positions. However Tenbergen (2001) argue that claiming value which is bargaining over position is major part of negotiation which is not address in Fisher et al. (1991). Further a recent study done in respect of using negotiation as ADR mechanism in Sri Lanka has emphasised that "the parties shall have intention to negotiate based on both position and interests in order to reach a settlement" (Baduge & Jayasena, 2016).

Inability of focusing both interest and positions is one the factors influencing on negotiation failures at conflict stage (Fact 10)

2.10.11 Generate variety of possibilities

More often, people engaged in the negotiation process, start negotiation with a belief in their mind that they are presenting a reasonable claim and other party have to accept it (Fisher et al., 1991). Once it reached to negotiation, usually parties fight over original positions trying to achieve wining outcome without focus on win-win solution.

Further, Fisher et al. (1991) stated that there are some obstacles which refrain parties from inventing options for mutual gain. That is, (1) fear of seeing foolish or fear of exposing bargaining position, (2) exploring the single answer, which they think as right one, (3) win-lose mind-set

Overcoming above stated barriers will lead the parties towards option of selecting the best answer from a large number of possible answers. Inability of generate variety of possibilities is one of the factors influencing on negotiation failures at conflict stage (Fact 11)

2.10.12 Use of objective criteria

As argued by Fisher et al. (1991) if parties unable to come into a solution, focusing on the objective criteria would be helpful to resolve the matter. Further authors pointed out, the objective criteria should have characteristics like independent, impartial, legitimate and practical. It could vary from case to case based on the factors like market value, scientific judgment, standards, decided cases, etc.

Having an objective criteria is also a successful method to distinguish emotions and allow the parties to make decisions on rational and logical basis. Further since decisions taken under objective criteria is not controlling by a party, both parties tend to accept outcome (Ren et al., 2011). Limited use of objective criteria is one of the factors influencing on negotiation failures at conflict stage (Fact 12)

2.11 Summary

This chapter described the conflicts in construction industry and effects of developing them into disputes. It further elaborate importance of avoiding disputes and importance of early negotiations as reactive measure in dispute avoidance.

From that point, the study has narrowed down to negotiation as a construction dispute avoidance mechanism and carryout study on negotiation styles, negotiation strategies, and negotiation process. 12 Numbers of prerequisites for a successful negotiation process has been discussed based on current body of knowledge available. That are awareness on benefits of avoiding dispute using negotiation, awareness on drawbacks of developing dispute, awareness on contractual and legal provisions, awareness on negotiation tactics, awareness on handling negotiation deadlocks, skills of dealing with the people, skills of using negotiation tactics, skills of handling negotiation deadlocks, representative level of authority, focus on both interest and positions, generate variety of possibilities, and use of objective criteria.

The factors influencing on negotiation failures at conflict stage are identified as follows; (Fact 01) unawareness on benefits of avoiding dispute using negotiation, (Fact 02) unawareness on drawbacks of developing dispute, (Fact 03) unawareness on contractual and legal provisions, (Fact 04) unawareness on negotiation tactics, (Fact 05) unawareness on handling negotiation deadlocks, (Fact 06) poor skills of dealing with the people, (Fact 07) poor skills of using negotiation tactics, (Fact 08) poor skills of handling negotiation deadlocks, (Fact 09) insufficient level of authority for representative, (Fact 10) inability of focusing both interest and positions, (Fact 11) inability of generate variety of possibilities, and (Fact 12) limited use of objective criteria.

CHAPTER 03

METHODOLOGY

CHAPTER 03

METHODOLOGY

3.1 Introduction

This chapter aims to set out the methodological framework which was used to accomplish the aim and objectives of this research study, “improve the effectiveness of negotiation practice, as a dispute avoidance mechanism for Sri Lankan construction industry”. It describes in detail under research methodology which used in completing this research including research philosophy, research approach and research techniques used for data collection as well as data analysis. The detail research process is illustrated at the end of the chapter.

3.2 Research methodology

Research methodology refers to the principles and procedures of logical thinking processes, which apply to a scientific investigation (Fellows & Liu, 2015). According to ‘Nested’ methodology illustrated in figure 3.2, research methodology or design consists of the following main components (Senarathne, 2005).

- (i) Identifying **Research Philosophy** on which the research is premised
- (ii) Selection of an appropriate **Research Approach** for theory testing and/or building
- (iii) Selection of **Research Techniques** for data collection and data analysis

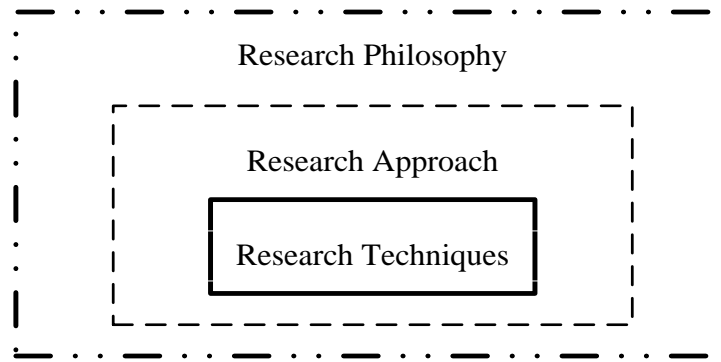


Figure 3.2: 'Nested' research methodology

Source: Kagioglou et al., 2000 cited Senarathne, 2005

The final outcome of a research depends heavily on its research design. Therefore, it is of paramount importance to develop the most appropriate research design for particular research study. Thus, the sub sections below describe in detail the research methodology of this research study.

3.3 Research philosophy

Research philosophy is the basic belief system or worldview that guides the investigator (Guba & Lincoln, 2000 cited Senarathne, 2005). Research philosophy is shaped by assumptions of ontological, epistemological and axiological foundations. Ontology describes what knowledge is and assumptions about reality while epistemology describes how we know it and assumptions about how knowledge should be acquired and accepted. Axiology explains what researcher values go into it and assumptions about value system (Senarathne, 2005).

According to the aim and objectives of this research as described in chapter 01, this research holds epistemology philosophy which tries to improve the efficiency of negotiation practice as a dispute avoidance mechanism.

3.4 Research approach

Research approach may be defined as the plan for moving from the research question to the conclusion (Tan, 2002). Easterby-Smith, Thorpe and Lowe (2002), stated that the research approaches helps in organising the research activities, including the collection of data, in ways that are more likely to achieve research aims.

Research approaches are classified mainly into two categories as quantitative and qualitative. Quantitative approach tends to relate to positivism and seek to gather factual data. It studies relationships between facts and how such facts and relationships accord with theories and the findings of any research executed previously (Fellows & Lui, 2015). Survey researches and experimental researches are basically coming under quantitative approaches. By using a qualitative approach, the researcher will study the whole population as individuals or groups and will identify beliefs, understandings, opinions and views of people and analyse them to find solutions (Fellows & Lui, 2015). Case study research, ethnography, action research and grounded theory approach can be considered as qualitative research approaches.

There is an important distinction between surveys and survey research. A survey is a means of "gathering information about the characteristics, actions, or opinions of a large group of people, referred to as a population". Surveys that are conducted to advance scientific knowledge are referred to as survey research (Kraemer, 2002). A survey is a systematic method of collecting primary data based on a sample. Tan (2002) stated that surveys may be used for exploratory, descriptive and casual studies. The purpose of a survey is not to consider a specific case in depth but to capture the main characteristics of the population at any instant or monitor changes over time.

This research has utilised mix method approach which has combined with quantitative and qualitative research approach. As the first phase it has comprised structured questionnaire survey to assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry and selected sampling had

used for the purpose. Once the significance failure factors has identified through the questionnaire survey, to provide recommendations to mitigate those significant factors, interview survey had carried out with industry experts.

3.4.1 Literature review and pilot survey

Literature review

A comprehensive literature review had been carried out in order to gather existing knowledge on researched subject area and established major pre-requisites for a successful adoption of negotiation as dispute avoidance mechanism. Literature review focused on relevant books, journals, e-articles and thesis. During the literature survey it had identified 12 prerequisites that contribute to the success of negotiation and 12 failure factors that contribute to the failure in negotiation.

Pilot study

A pilot study was carried out, with three experts in the industry, to identify more failure factors since literature was not adequate enough in respect of application of the early negotiation as a dispute avoidance mechanism in Sri Lankan context. The three experts are academically and professionally qualified with more than 18 years of industry experience including over 10 years in road construction projects. Through the pilot study, another five factors had been identified under the attitude category. Thus, altogether eighteen factors which cause to failure in the negotiation process had been identified

3.5 Research technique

Research techniques comprise of data collection and data analysis methods. A variety of data collection techniques can be used in researches such as interviews, questionnaires, document surveys, observation, participation, etc (Tan, 2002). The data analysis technique will act as the media to interpret the data collected and achieve

a conclusion. Statistical analysis, content analysis, pattern-matching and cognitive mapping are the commonly used techniques in data analysis. It is very important to identify the appropriate techniques to be used in a research as a part of the research design. Thus, the data collection and analysis techniques implemented in this research are described below.

3.5.1 Data collection techniques

Data collection process of this particular research consisted of two stages. Both stages are based on expert surveys with different perspectives. First stage was based on questionnaire survey and second stage was designed to carry out via semi-structured interviews.

Questionnaire survey

The main objective of the questionnaire survey was to discover the failure factors in adopting negotiation as dispute avoidance mechanism for Sri Lankan construction industry. In order to achieve that objective, data collection has been done with thirty two numbers of industry experts.

Interview survey

Main focus of interview survey was to discover the recommendations to mitigate the significant failure factors of negotiation identified through questionnaire survey. Hence, interviews with four industry experts had carried out to obtain the recommendations.

Unit of analysis

This study was aimed to assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry. Therefore, the unit of analysis of this study is the experts, who involved in situations, where conflicts developed up to the dispute stage in construction projects.

3.5.2 Data analysis techniques

Both statistical data analysis and content analysis were used in this research study to analyse the collected data.

Two main types of statistics are used, that is descriptive statistics and inferential statistics. Inferential statistics use a random sample of data taken from a population to describe and make inferences about the population. Descriptive statistics include the methods of organising, summarising and presenting data in an informative way. Relative Importance Index (RII) has been used to analyse the collected data from the questionnaire survey.

Descriptive statistics

Descriptive statistics involves the arrangement, summary and presentation of data, to facilitate meaningful interpretation and to support decision making. Graphical techniques and numerical descriptive measures can use as techniques in this analysis. Graphical techniques can be utilized for presenting the data including pie chart, bar chart and tables. As numerical descriptive measures, frequencies, percentages and means can use for presenting description finding of the survey. These techniques were applied for analysing data related to the characteristics of the respondents. This is an appropriate analysis method which can be used as the initial analysis of data (Lind, Marchal & Wathen, 2005). Hence the descriptive statistics analysis used to identify most significant failure factors in adopting negotiation as a dispute avoidance mechanism in Sri Lanka.

Fishbone diagram (Ishikawa diagram)

The fishbone diagram (Ishikawa Diagram) used as the demonstration tool of the failure factors of negotiation. Fishbone diagram (also called as Ishikawa diagram or cause and effect diagram) is a systematic graphical tool used to exemplify the probable causes of a specific problem (Gündüz, Nielsen & Özdemir, 2013). Here, the main problem represented by the fish head where the potential causes represented by the fish bone

(Wong, 2011). The fishbone diagram of categories of factors that causes for the failures in negotiation found through literature and pilot study is shown in figure 3.5.2.

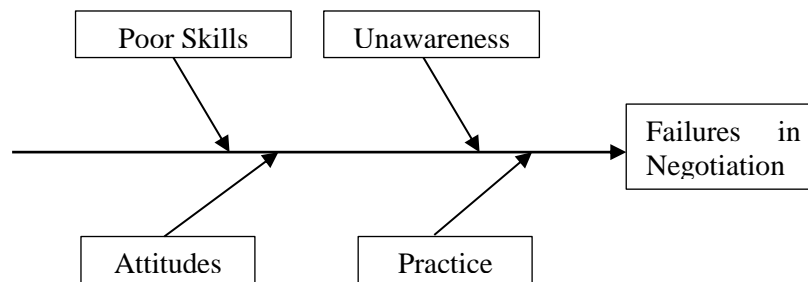


Figure 3.5.2: Categories of factors cause for failures in Negotiation

Relative importance index (RII)

Throughout the literature review and pilot study eighteen failure factors for negotiation in construction industry had identified under four main categories. Thus, the questionnaire developed assigning values to each factor ranging from 1 (very low importance) to 5 (very high importance) and the interviewees have asked to assign a value for each factor based on their knowledge and experience.

Gündüz et al. (2013) utilised RII method to ascertain the relative importance of various factors. Thus, in this study also, RII method was used to assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry based on parameters established in the literature review. RII for each method will be calculated through the following equation;

$$RII = \frac{\sum w}{(A * N)}$$

Content analysis

In order to obtain the recommendations to minimise the impact of significant failure factors identified through the RII analysis, four interviews had been carried out with industry experts. Inputs of those interviews were analysed through content analysis, which has coded the expert views and explicit in a systematic way (Elo & Kyngäs, 2007).

3.6 Research process

According to the above explained research methodology, overall research process to achieve the objectives identified in chapter 01 has illustrated as follows (Figure 3.6).

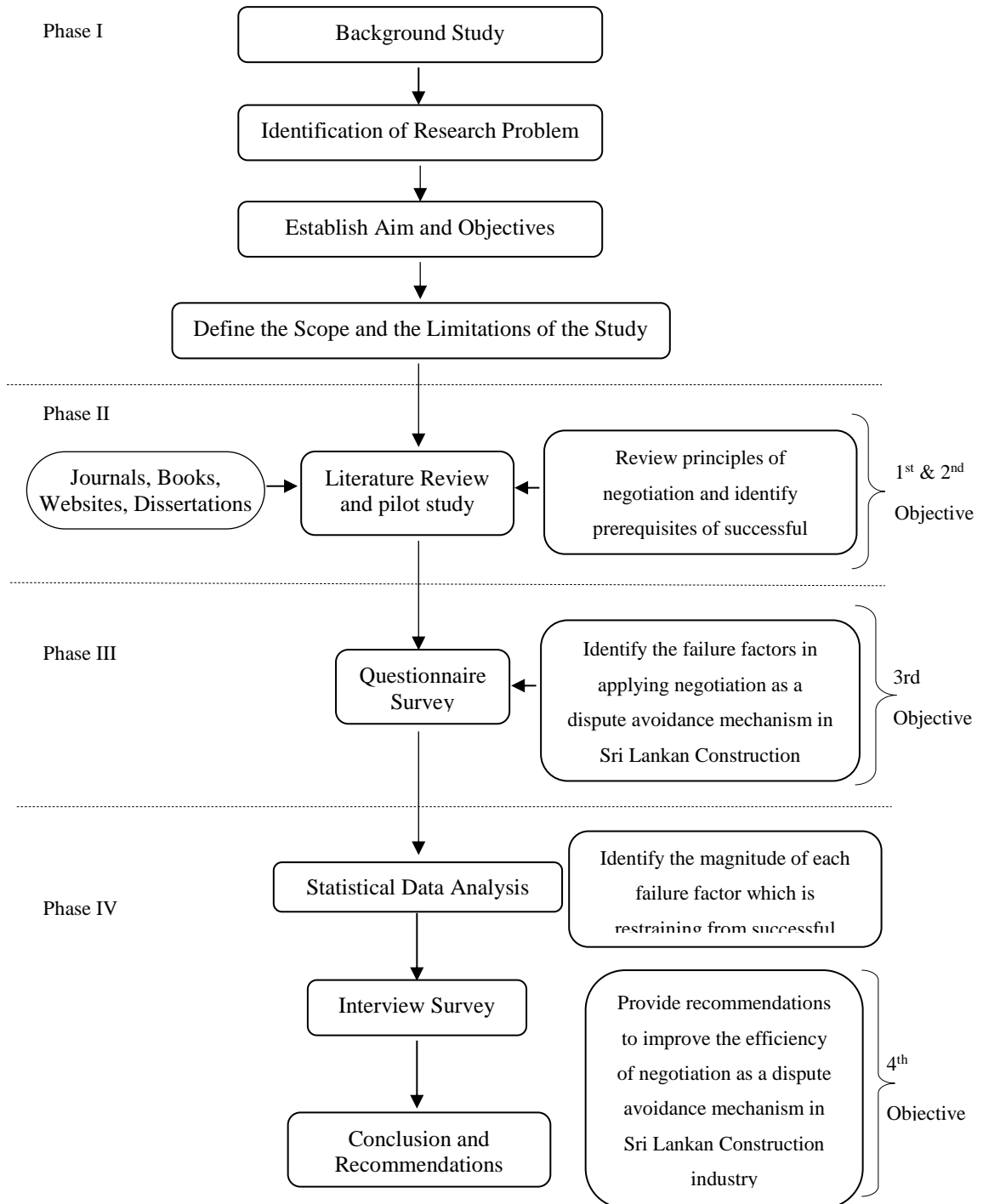


Figure 3.6: Research process

3.7 Summary

This chapter briefly discussed the research methodology including the research approach, data collection and analysis techniques which were used to achieve the research objectives. The study was conducted under two stages.

First stage was carried out in order to find out most significant failure factors of adopting negotiation as dispute avoidance mechanism in Sri Lanka. A quantitative approach has figured out as the best research approach for the research while questionnaire survey was selected as the best method to collect data according to the study. Statistical analysis including descriptive statistics and RII method used for data analysis.

Further second stage was designed to figure out recommendations to overcome such most significant barriers. Qualitative approach has identified as most appropriate and semi-structured interviews used to collect data. Content analysis used as analysis method to achieve last objective of the study.

CHAPTER 04

DATA ANALYSIS AND RESEARCH FINDINGS

CHAPTER 04

DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

Throughout this chapter it illustrates findings of this research study together with the analysis and interpretation of the research findings.

Findings of the first stage of data collection which was done through the questionnaire survey has been analysed using RII method. This chapter primarily clarify on the prominent factors which caused to failures in negotiation process of Sri Lankan construction industry with special reference to foreign funded road construction projects. Further to that it has clarified the basic information on respondent rate, professional background of respondents, respondents' overall professional experience and experience on foreign funded road construction projects, respondents' experience on negotiation and failed negotiation processes also discussed in this chapter.

4.2 Questionnaire survey

Through the questionnaire survey, respondents were requested to rate eighteen factors and fill other failure factors which is not listed (if any) as given in Table 4.2, based on a 1 – 5 range likert scale where 1 stands for “very low importance” and 5 stands for “very high importance”.

Table 4.2: Failure factors in negotiation process

Category	Factor
Unawareness	1. Benefits of effectively managing conflicts at Site level
	2. Drawbacks of developing dispute
	3. Contract/legal terms and interpretations
	4. Negotiation tactics
	5. Handling negotiation deadlocks

Category	Factor
Poor Skills	1. Dealing with the people
	2. Negotiation tactics
	3. Handling negotiation deadlocks
Attitudes	1. "Time taking" attitude
	2. "It's not my problem" attitude of Engineer representatives
	3. "Not giving anything" attitude of Engineer representatives
	4. "We can easily deal with the Employer" attitude of Contractor representatives
	5. Should stick to the document
	6. Walkaway and go for next step as ADR
Practice	1. Insufficient level of authority
	2. Inability of focusing both interest and positions
	3. Inability of generating variety of possibilities
	4. Limited use of objective criteria such as standards Conditions of Contract
Other (if any)	

Assessment of the failure factors in adopting negotiation as a dispute avoidance mechanism in Sri Lankan road construction, was the main objective to fulfil through the questionnaire survey. Although many failure factors has been identified from the literature review and pilot study, their relevancy and magnitude to Sri Lankan context needed to be examined. Thus, forty questionnaires were distributed among experts in the Sri Lankan construction industry. Out of all, thirty two completed questionnaires were received through emails and direct meetings. Thus the response rate was 80%.

4.2.1 Professional background of respondents

As mentioned above questionnaire survey questionnaire was focused to get a local magnitude for the identified failure factors and to reveal the most relevant and

significant failure factors for Sri Lankan context. In order to attain meaningful and relevant information for the study, quantity surveyors and engineers have been selected for the study. Apart from that; contract specialists, contract administrators, directors, associate directors, team leaders and deputy team leaders were involved to get diversified information. Table 4.2.1 and figure 4.2.1 present the respondents' professional background and the percentage evaluation. According to that; out of thirty two experts who actively contributed for the survey; 44% were quantity surveyors, 25% were engineers, 16% were contract specialist and contracts administrators, 9% were team leaders and deputy team leaders and 6% were directors and associate directors.

Table 4.2.1: Professional background of respondents

Professional background	Number of respondents	Percentage
Senior Quantity Surveyors / Quantity Surveyors	14	44%
Contract Specialist / Contracts Administrator	5	16%
Director / Associate Director	2	6%
Engineers	8	25%
Team leader / Deputy Team Leader	3	9%
Total	32	100%

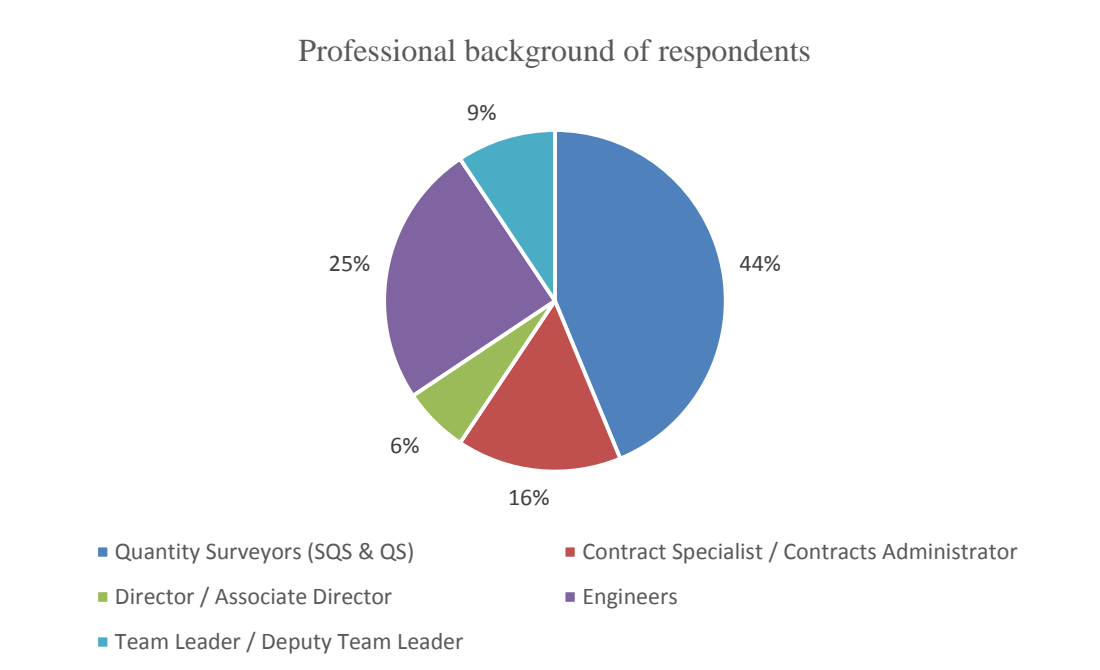


Figure 4.2.1: Professional background of respondents

4.2.2 Qualifications and experience of respondents

Respondents' qualification and experience in the relevant field are two main factors affirm the validity of information gathered. Thus, under the category of background information, respondents' educational qualification, professional qualification and experience related details were collected.

According to table 4.2.2 (1) and figure 4.2.2 (1) out of thirty two respondents; 59% of respondents hold a membership of professional institute, along with a bachelor degree. 19% of respondents chartered qualified, bachelor degree and master degree. 16% had bachelor degree only. 6% of respondents were chartered qualified and having master degree.

Table 4.2.2 (1): Educational and professional qualifications of respondents

Educational and professional qualification	Number of respondents	Percentage
Chartered + Bachelor Degree	19	59%
Chartered + Bachelor Degree + Master Degree	6	19%
Chartered + Master Degree	2	6%
Bachelor Degree only	5	16%
Total	32	100%

Educational and professional qualifications of respondents

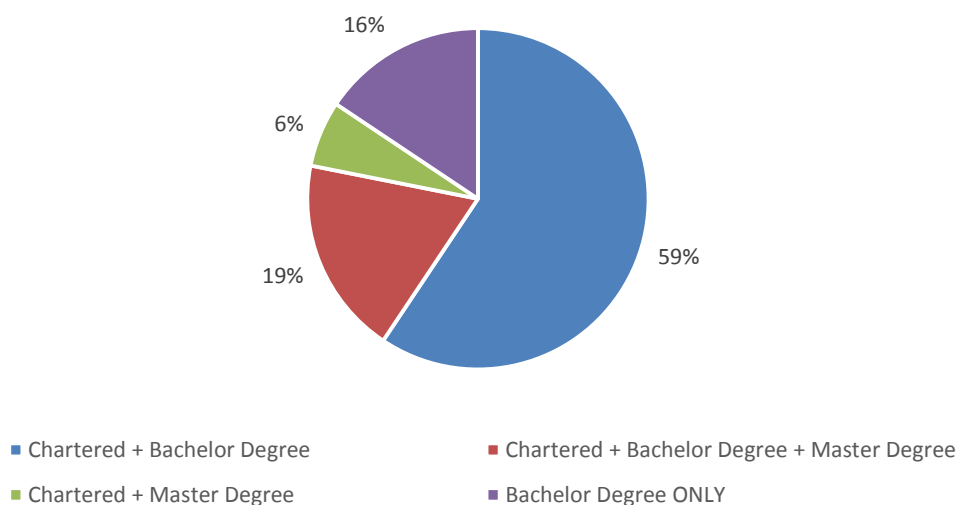


Figure 4.2.2 (1): Educational and professional qualifications of respondents

Further to that respondents' total work experience has been tracked. According to the table 4.2.2 (2) and figure 4.2.2 (2); 81% of respondents had more than 16 years' work experience in the construction industry. 13% had 10 – 15 years' experience and 6% had 6 – 10 years' total experience in the construction industry.

Table 4.2.2 (2): Total work experience of respondents

Total work experience	Number of respondents	Percentage
6 – 10 years	2	6%
11 – 15 years	4	13%
16 or more years	26	81%
Total	32	100%

Total work experience of respondents

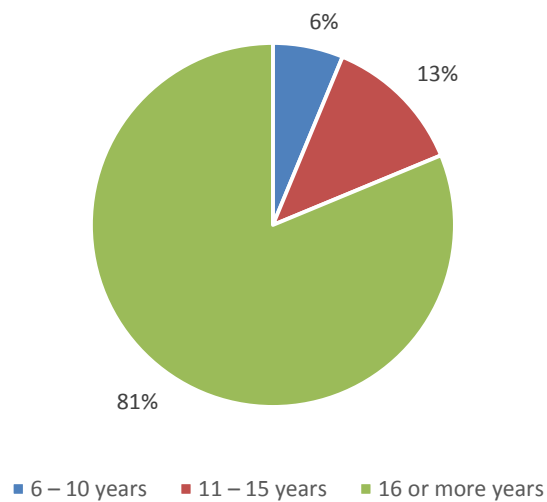


Figure 4.2.2 (2): Total work experience of respondents

Moreover, since the study has focused on foreign funded road construction projects; out of total work experience of the respondents, experience in foreign funded road construction project also gathered. Thus as shown in table 4.2.2 (3) and figure 4.2.2 (3), from thirty two respondents 50% of respondents had 6 – 10 years of experience in road construction projects. Another 34% of respondents had 16 years or more experience and 16% had 11 – 15 years' experience in road construction projects.

Table 4.2.2 (3): Respondents' experience in foreign funded road projects

Experience in foreign funded road projects	Number of respondents	Percentage
6 – 10 years	16	50%
11 – 15 years	5	16%
16 or more years	11	34%
Total	32	100%

Respondents' experience in foreign funded road projects

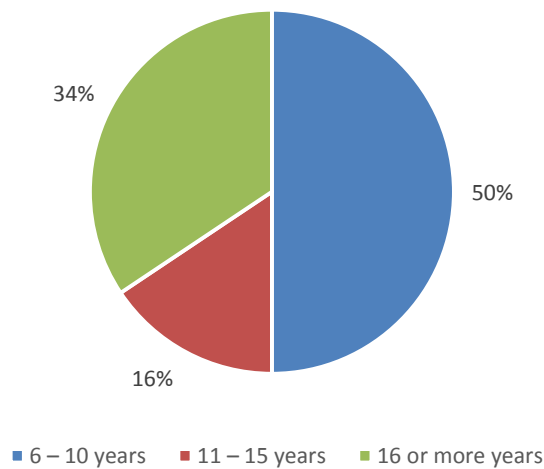


Figure 4.2.2 (3): Respondents' experience in foreign funded road projects

4.2.3 Respondents' involvement in negotiation processes

Since respondents' involvement in negotiation process also largely matters in the validity of responds and information, that also checked through the questionnaire. Information gathered on respondents' view point in respect of negotiation. Therefore their contribution and experience in negotiation processes and their experience on failed negotiation processes is important. Out of total thirty two respondents, all respondents were well aware on negotiation process, had contributed in negotiation processes and everyone had experience in failed negotiations. Thus, research findings and experts views on this study is having a 100% high validity rate.

4.3 Analysis and findings of questionnaire survey

During questionnaire survey thirty two respondents had ranked eighteen factors which cause to failures in the negotiation process under four main categories. Using RII method, it had identified the most significant factors impacting to the negotiation failure, as shown in table 4.3.

Table 4.3: RII ranking of factors impact on negotiation failure

Category	Failure factor	RII	Rank
Unawareness	Contract/legal terms and interpretations	0.794	1
	Negotiation tactics	0.656	2
	Handling negotiation deadlocks	0.638	3
	Benefits of effectively managing conflicts at Site level	0.581	4
	Drawbacks of developing dispute	0.519	5
Poor Skills	Dealing with the people	0.775	1
	Handling negotiation deadlocks	0.694	2
	Negotiation tactics	0.688	3
Attitudes	“We can easily deal with the Employer” attitude of Contractor representatives	0.681	1
	Should stick to the document	0.663	2
	"Not giving anything" attitude of Engineer's representatives	0.644	3
	“Time taking” attitude	0.638	4
	“It's not my problem” attitude of Engineer representatives	0.613	5
	Walkaway and go for next step as ADR	0.613	6
Practice	Representatives level of authority	0.725	1
	Inability of generating variety of possibilities	0.656	2
	Inability of focusing both interest and positions	0.638	3
	Limited use of objective criteria such as standards CoC	0.625	4

4.3.1 Unawareness

As shown in figure 4.3.1 below, unawareness of contract/legal terms and interpretations ranked as the first factor influencing on negotiation failures recording the highest RII value of 0.794 in unawareness category. Unawareness on negotiation tactics has been identified as the second influencing factor for failures in negotiation process under this category with a 0.656 RII value. As the third failure factor, respondents had ranked handling negotiation deadlocks with a 0.638 RII value. Unawareness on benefits of effectively managing conflicts at site level and unawareness on drawbacks of developing disputes had been ranked respectively as the fourth and fifth influencing factors with a RII value respectively 0.581 and 0.519. All the factors in this category had above 0.51 RII value.

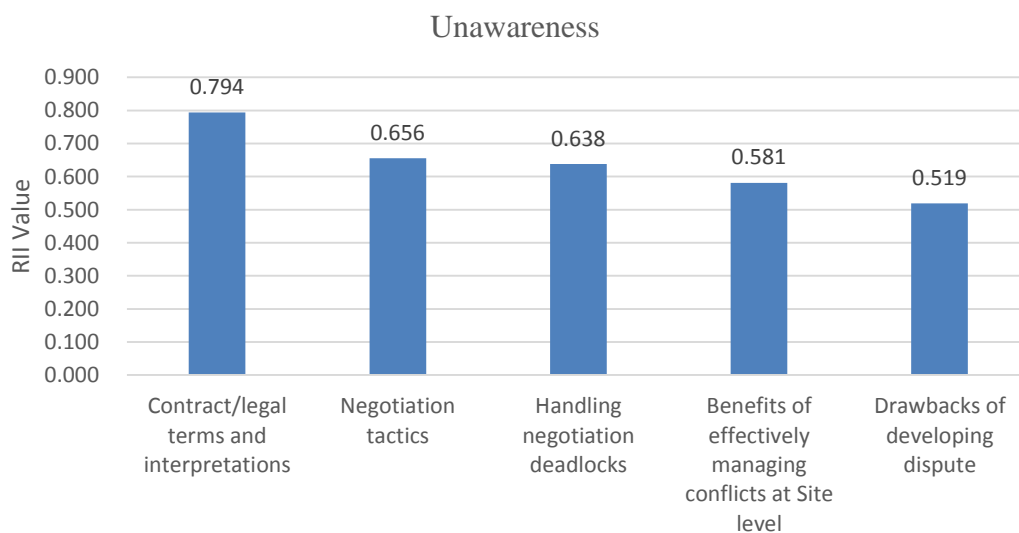


Figure 4.3.1: Unawareness

4.3.2 Poor skills

As shown in figure 4.3.2 below, highest RII value has been recorded in poor skills in dealing with people which is 0.775. This implies the way of dealing with people in negotiation process has the highest impact for negotiation failures. Poor skills in handling negotiation deadlocks recorded second highest RII value of 0.694 in this category. Poor skills in negotiation tactics had 0.688 RII value and recorded as the

third influencing factor causing negotiation failures in this category. All the factors in this category had above 0.68 RII value.

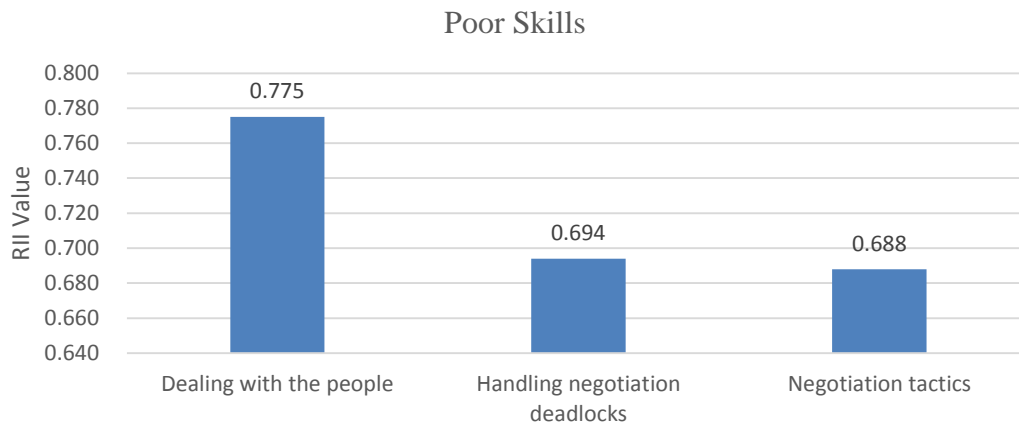


Figure 4.3.2: Poor skills

4.3.3 Attitudes

Most significant factors impacting to the negotiation on “attitude category, are shown in figure 4.3.3 below,

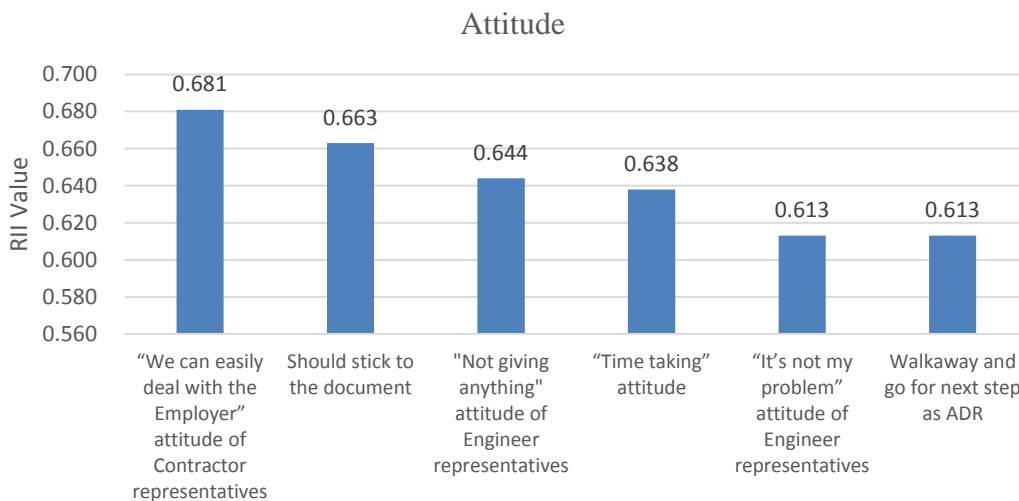


Figure 4.3.3: Attitude

As shown in figure 4.3.3 above, “we can easily deal with the employer” attitude of contractors representatives’ ranked as the first factor influencing on negotiation failures recording the highest RII value of 0.681 in attitude category. “Should stick to

the document” attitude has been identified as the second influencing factor for failures in negotiation process with a 0.663 RII value. As the third failure factor, "not giving anything" attitude of the Engineer’s representatives with a 0.644 RII value. Time taking attitude, “it’s not my problem” attitude of Engineer’s representatives, and walkaway and go for next step as ADR attitude had been ranked respectively as the fourth, fifth and sixth influencing factors with a RII value respectively 0.638, 0.613, and 0.613. All the factors in this category had above 0.61 RII value.

4.3.4 Practice

As shown in figure 4.3.4 below, insufficient level of authority of representatives’ has been recorded as the highest influencing factor of this category having a 0.725 RII value. Then, inability of generating variety of possibilities with 0.656 RII value has been identified as the secondly influencing factor for negotiation failures. Inability of focusing both interest and positions has been identified as the thirdly influencing factor with a 0.638 RII value. Limited use of objective criteria such as standard condition of contracts has been identified as the last influencing factor with a 0.625 RII value in this category. Every factor in this category had above 0.62 RII value

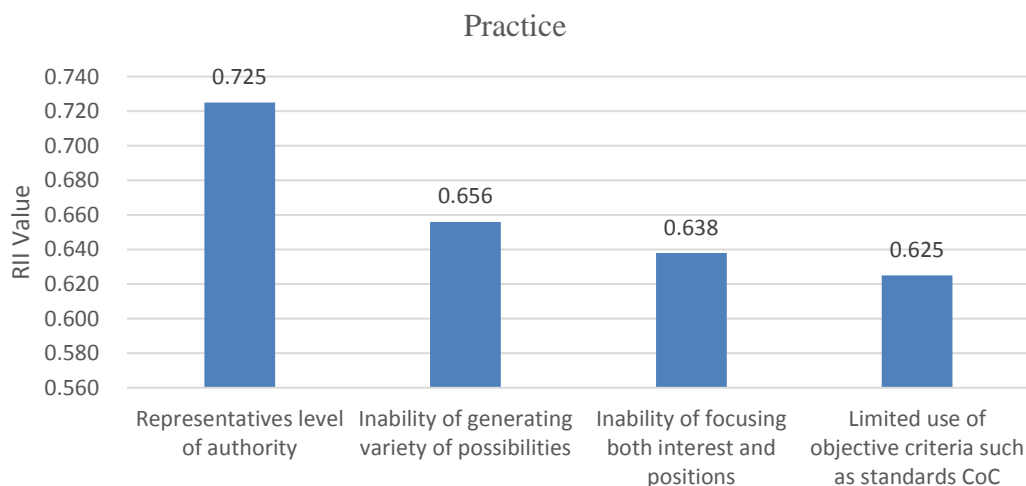


Figure 4.3.4: Practice

4.3.5 Total RII ranking of negotiation failure factors

Most significant factors impacting to the negotiation failure, based on total RII ranking are shown in table 4.3.5 below.

Table 4.3.5: Total RII ranking of negotiation failure factors

Failure factor	Category	RII	Rank
Contract/legal terms and interpretations	Unawareness	0.794	1
Dealing with the people	Poor Skills	0.775	2
Representatives level of authority	Practice	0.725	3
Handling negotiation deadlocks	Poor Skills	0.694	4
Negotiation tactics	Poor Skills	0.688	5
“We can easily deal with the Employer” attitude of Contractor representatives	Attitudes	0.681	6
Should stick to the document	Attitudes	0.663	7
Inability of generating variety of possibilities	Practice	0.656	8
Negotiation tactics	Unawareness	0.656	8
"Not giving anything" attitude of Engineer representatives	Attitudes	0.644	10
Handling negotiation deadlocks	Unawareness	0.638	11
“Time taking” attitude	Attitudes	0.638	11
Inability of focusing both interest and positions	Practice	0.638	11
Limited use of objective criteria such as standards CoC	Practice	0.625	14
“It’s not my problem” attitude of Engineer representatives	Attitudes	0.613	15
Walkaway and go for next step as ADR	Attitudes	0.613	15
Benefits of effectively managing conflicts at Site level	Unawareness	0.581	17
Drawbacks of developing dispute	Unawareness	0.519	18

According to the table 4.3.5 out of eighteen failure factors, the highest RII value 0.794 has recorded for fact that “unawareness in contract/legal terms and interpretations”. Secondly factor “poor skills in dealing with the people” with 0.775 RII value, thirdly “insufficient level of authority of representative’s” factor with 0.725 RII value, fourthly “poor skills in handling negotiation deadlocks” factor with 0.694 RII value and fifthly “poor skills in negotiation tactics” with 0.688 RII value has been identified by the respondents. All the factors under the categories of unawareness, poor skills, practice and attitudes has scored a RII value above 0.51 showing a high influence for the failures of negotiation process. However it is noted that out of those top five factors, three factors were from “poor skills” category. Thus poor skills in construction professional who deals with negotiations at site level creates more influence over failure in negotiation adopting as dispute avoidance mechanism.

4.3.6 Other failure facts

At the first stage of data collection in questionnaire survey respondents were requested to provide if there is any other failure factors which is not listed. However such data collected has not considered for analysis since it is impossible to carry out another data collection round with available time. However, three points were collected under this section. Three experts pointed out “lack of maintaining supporting documents/records” as failure behind site level negotiation, two experts expressed that “I know everything” attitude of the Engineer, and one expert pointed out that “trust/confidence over each other when local and foreign personal involved” has major impacts on failure of adopting negotiation as dispute avoidance mechanism.

4.4 Analysis and findings of interview survey

As mentioned above, four interviews carried out with industry experts in order to gather data on recommendations for overcome top failure factors namely, (1) unawareness in contract/legal terms and interpretations, (2) poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics, (3)

insufficient level of authority of party representatives and (4) attitude of contractor representatives that “we can easily deal with the Employer”.

All four experts who provide recommendations are academically and professionally qualified professionals with more than 17 years of industry experience including over 10 years in road construction projects. Profile of the experts are shown below,

Table 4.4: Profile of the four experts who provide recommendations

Description	Expert A	Expert B	Expert C	Expert D
Designation	Contract Specialist	Claim Consultant	Senior Quantity Surveyors	Senior Quantity Surveyors
Educational and professional qualifications	Chartered + Bachelor Degree + Master Degree	Chartered + Bachelor Degree + Master Degree	Chartered + Bachelor Degree + Master Degree	Chartered + Bachelor Degree + Master Degree
Total experience	25 years	20 years	18 years	19 years
Experience in road construction projects	16 years	15 years	12 years	11 years

4.4.1. Unawareness of contract/legal terms and interpretations

Continuous professional development (CPD)

All four experts emphasise that promoting CPD as one main recommendation to overcome this failure factor. This further explain by Expert A, mentioning that CDP should include “*workshop on particular conditions and particular specification for the project team*” and “*knowledge sharing sessions*”. Expert B added “*internet based information sharing systems*” could be used to enhance knowledge base of the professionals which helps to easy access and quick access. Further Expert D pointed out other than educate individuals it is more important to educate organisations which are Engineer to the contract, and contractors, on advantages of employing well qualified professionals as team members.

Qualified and experienced professionals

Expert A, C and D pointed out importance of employing academically qualified experienced professionals for both parties. Expert A explains that in road sector “*although it is more concern on the qualifications and experience of the Engineer's team members, no considerable control over the Contractor's personals*” and therefore “*until and unless issue developed into dispute no qualified professionals come into the picture*”. This was confirmed by Expert C’s view by adding “*particularly for Contractor's side*” at the end of his recommendation to employ academically qualified experienced professionals for both parties. Expert D extend his view into recommend that it is required to set “*level of professionals to be incorporated during the pre-contract and post contract stages*”.

4.4.2. Poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics

Training programs

All four experts recommended to conduct negotiation skill development training programs and Expert A added these training programmes shall be conducted via professional bodies to improve their members. Further experts has identified these training programmes shall include providing knowledge on psychological aspects (Expert A), soft skills (Expert B) and emotional management skills and communication skills (Expert C). Furthermore Expert B pointed out “*delegation of negotiations from the junior level, to gain continuous learning*” as one most important recommendation to develop next layer of professionals.

Selection of negotiators

Only Expert A focus on making recommendation other than skill development training programs. It is recommended to select people who can easily deal with other party who is having high personal relations. Further recommended to select clear communicators with less emotions.

4.4.3. Insufficient level of authority of party representatives

Delegation of power

All experts suggested delegation of sufficient authority to overcome this barrier. Expert A pointed out in his recommendation, *“considering type, complexity and value, party representative should be nominated”* and Expert C has emphasised his recommendation by stating that *“it is suggest to delegation of power to the negotiator or the personal who are having authority should come to the negotiation table”*.

However Expert D extend his recommendation to different view point and highlighted necessity of safeguarding the Engineer’s level of authority. He recommended to *“avoid unnecessary limitation of the Engineer's authority by amending the standard conditions of contract”*.

4.4.4. Attitude of “we can easily deal with the employer”

Enhance the employer’s practice

Expert B, C and D recommended with view point that the reason behind this attitude of the contractor is based on “anyhow” wining by dealing with employers, that is state sector organisations, which tend to be corrupt. Expert B recommended to *train Employer’s personnel on contract administration* and introduce *strict guide lines for the Employer’s personnel on contract administration*. Further Expert D suggested to *“employ well qualified technical audit team in the Employer’s organization, to minimize corruptions”*.

Awareness on the employer’s power

Expert C has pointed out there is a misleading on contractors side that *“the Employer has super power”* and Expert A recommended *“make aware on the Employer's*

limitations in respect of decision making as a state sector organization” will change this attitude.

Direct involvement of the employer

Expert A has driven site level negotiation into new paradigm via his recommendation. He proposed in order to overcome this situation negotiation should be conduct *“between the Engineer and the Contractor to get basic idea of concerns of both parties, then decide possible settlement options”* and *“final negotiation shall be conduct in presence of the Employer and take Employers determination over the matter”*.

4.5 Summary

The chapter illustrated the analysis of research findings. One key finding is all the factors checked in the road sector of Sri Lankan construction industry has scored a RII value above 0.51 showing a high influence for the failures of negotiation process.

However main four failure facts were identified from each category, i.e. (1) unawareness in contract/legal terms and interpretations, (2) poor skills in dealing with the people, (3) insufficient level of authority of party representatives and (4) attitude of contractor representatives that “we can easily deal with the Employer”. Further when it considered most influenced failure facts overall basis it is noted that top six factors consist with all three factors were from “poor skills” category along with above top ranked from other categories, i.e. unawareness, practice and attitudes.

Accordingly, four failure factors were identified modifying aforesaid point (2) as “poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics” Semi-structured interview conducted and content analysis done on qualitative data received in order to find out recommendations to overcome above fond barriers in adopting site level negotiation as effective dispute avoidance mechanism.

In summary, result of research findings are summarized and represented in tabular manner in Table 4.5 as follows.

Table 4.5: Summary of findings

Failure Factor	Recommendations
1. Unawareness in contract/legal terms and interpretations	a. Conducting Continuous Professional Development programmes b. Employing qualified and experienced professionals
2. Poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics	a. Conducting skills development training programs b. Selection of suitable negotiators
3. Insufficient level of authority of party representatives	a. Delegation of power
4. Attitude of contractor representatives that “we can easily deal with the Employer”	a. Enhance the Employer’s practice b. Awareness on the Employer’s power c. Direct involvement of the Employer

CHAPTER 05

CONCLUSION AND RECOMMENDATIONS

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5.1 Introduction

Chapter five intends to summarise and conclude the study. This chapter provides recommendations to improve the effectiveness of negotiation practice, as a disputes avoidance mechanism in Sri Lankan construction industry. Further it provides limitations that the study conducted. Furthermore this chapter provides future research avenues to extend the body of knowledge.

5.2 Summary of the study

The parties of construction projects are required to take all reasonable efforts to resolve their conflicts then and there without letting those developing into disputes because unattended conflicts possibly grow fast, spread and create unpalatable knock-on-effects which are not easy to handle. Out of many dispute avoidance mechanisms, early negotiation has identified as an important reactive measure to be used due to many advantages inborn.

However in recent study in respect of Sri Lankan construction industry it is emphasised “disputes are widespread in the construction industry” (Alwis et al., 2016). This shows that dispute avoidance and conflict management are not practiced successfully in the Sri Lankan construction projects.

Thus, this research was aimed to improve the effectiveness of negotiation practice, as a disputes avoidance mechanism in Sri Lankan construction industry. In order to achieve aforementioned aim, four objectives were formed. First objective was to review principles of negotiation for dispute avoidance. This has been achieved through a comprehensive literature review.

Second objective was to identify prerequisites of successful negotiation practice in dispute avoidance. Thereby, main twelve prerequisites were identified through literature and another six were identified through pilot study, to make a successful negotiation practice.

Third objective was to assess the failure factors in adopting negotiation as dispute avoidance mechanism in Sri Lankan construction industry based on parameters established in the literature review and pilot study. This had achieved through a questionnaire survey. Identified eighteen factors that contribute to the failures in negotiation was divide under four main categories, namely; unawareness, poor skills, attitudes and practice. RII method used to analyses data collected under questionnaire survey. Highly influencing failure factors of category basis and overall basis were identified. Thus key findings were,

- (1) Unawareness in contract/legal terms and interpretations
- (2) Poor skills in dealing with the people, handling negotiation deadlocks and using negotiation tactics
- (3) Insufficient level of authority of party representatives
- (4) Attitude of contractor representatives that “we can easily deal with the Employer”

Fourth objective of the study, that is provide recommendations to improve the effectiveness of negotiation as a dispute avoidance mechanism in Sri Lankan construction industry, completed through content analysis on data collected through interviews carried out with four industry experts.

Conducting CPD programmes and employing qualified, experienced professionals recommended to overcome unawareness. Further it was recommended to conduct skills development training programs and selecting suitable negotiators to mitigate barriers of poor skills. Delegation of power had been suggested in order to overcome insufficient level of authority of party representatives. Finally to address with

contractor representatives attitude that “we can easily deal with the Employer”, it was recommended to enhance the Employer’s practice, make aware on the Employer’s real power and proposed direct involvement of the Employer to negotiation.

5.3 Conclusion

Findings of the study shows “early negotiation as dispute avoidance mechanism” has to develop in respect of all aspects. Major area to be concerned is concluded as “skills” of professionals who plays major role in negotiation table.

5.4 Recommendations

Following recommendations can be made under contribution to the knowledge and implementations to the construction industry as per outcomes of the research study.

5.4.1 Contribution to the knowledge

Research findings contributes the body of knowledge in respect of early negotiation, its barriers of adopting as dispute avoidance mechanism and experts recommendations to overcome such barriers in studied context within given limitations.

5.4.2 Implementations to the construction industry

As per research findings both private sector and public sector organisations take part in road construction projects should implement the followings, in order to adopt early negotiations as dispute avoidance mechanism successfully.

- Improve skills of negotiators through academic and professional training programmes.
- Enhance awareness on importance of early negotiation and contractual/ legal ground via CPD programmes.

- Public sector organisations shall enhance their practices and increase transparency on their decision making to avoid corruptions.

5.5 Limitations of the study

The study was limited to the foreign funded road construction projects.

5.6 Future research

Since it is not widely researched on early negotiation as dispute avoidance mechanism, following further research directions can be provided;

- Studies can be extended to cover the local funded road construction projects and or construction projects other than road construction.

REFERENCES

REFERENCES

- Alvin, L.G. (1991). *Settling for more; mastering negotiating strategies and techniques*. Washington DC: The Bureau of National Affairs Inc.
- Alwis, I. D., Abeynayake, M., & Francis, M. (2016). Dispute avoidance model for Sri Lankan construction industry. *In Proceedings of the World Construction Symposium 2016*, (pp.162-173). Colombo, Sri Lanka: Ceylon Institute of Builders.
- Anderson, W., Chitwood, S. R., Hayden, D. & Takemoto, C. (2008). *Negotiating the special education maze: a guide for parents and teachers* (4th ed.). Woodbine House
- Baduge, S., & Jayasena, S. (2016). Win-win settlement: applicability of negotiation principles for dispute negotiations in construction projects. *In Proceedings of the World Construction Symposium 2016*, (pp.555-566). Colombo, Sri Lanka: Ceylon Institute of Builders.
- Brown, H. J., & Marriott, A. L. (1993). *ADR Principles and Practice*. London: Sweet and Maxwell.
- Colangelo, B. I. (1999). *Partnering on the municipal construction project: focusing on dispute avoidance*, *The Digest of Municipal & Planning Law*.
- Cakmak, E., & Cakmak, P. I. (2014). An analysis of causes of disputes in the construction industry using analytical network process. *Journal of Procedia - Social and Behavioral Sciences*, 109 (2014), 183-187, doi: 10.1016/j.sbspro.2013.12.441
- Cartlidge, D. (2009). *Quantity surveyor's pocket book*. Elsevier Ltd: USA
- Campbell, P. (1997). *Construction dispute avoidance and resolution*. Latheronwheel: Whittles
- Cheung, S. O., Wong, W. K., Yiu, T. W., & Kwok, T. W. (2008). Exploring the influence of contract governance on construction dispute negotiation. *Journal of*

Professional Issues in Engineering Education and Practice, 134(2008), 391-398.
doi: 10.1061/(ASCE)1052-3928(2008)134:4(391)

Cheung, S. O., Yin, T. W. Y., & Yeung, S. F. (2006). A study of styles and outcomes in construction dispute negotiation. *Journal of Construction Engineering and Management*, 132(2006), 805-814. doi:10.1061/(ASCE)0733-9364(2006)132:8(805)

Cooperative Research Centre for Construction Innovation (CRCCI), (2009). Guide to leading practice for dispute avoidance and resolution: An overview. . Retrieved from http://www.construction-innovation.info/images/pdfs/DAR_Overview.pdf

Easterby-Smith, M., Thorpe, R. & Lowe, A., 2002. *Management research: an introduction*. London: Sage publications.

Elo, S., & Kyngäs, H. (2007). The qualitative content analysis process. Retrieved from <https://student.cc.uoc.gr/uploadFiles/192-%CE%A3%CE%A0%CE%95%CE%9D407/CONTENT%20ANALYSIS.pdf>

Fairway, (n.d.). *Dispute avoidance*. Retrieved from <http://www.gtfairway.com/our-services/dispute-avoidance.html>.

Federation Internationale des Ingenieurs-Cons. (2008). *Conditions of Contract for Design, Build and Operate Projects*. Switzerland: Author.

Federation Internationale des Ingenieurs-Cons. (2010). *Conditions of contract for construction for building and engineering works* (Multilateral Development Bank Harmonised ed.) Switzerland: Author.

Fellows, R. F., & Liu, A. M. (2015). *Research methods for construction*. John Wiley & Sons.

Fells, R. (1989). Managing the process of negotiation. *Journal of Insights in Human Resources Management*, (27), 17 - 22.

Fenn, P., Lowe, D., & Speck, C. (1997). Conflict and dispute in construction. *Journal of Construction Management & Economics*, 15(6), 513-518, doi.org/10.1080/014461997372719

-
- Fisher, R., Ury, W., & Patton, W. B. (1991). *Getting to yes* (2nd ed.). Retrieved from <http://6thfloor.pp.fi/fgv/gettingtoyes.pdf>
- Frank, K. (2012). Causes and impacts of construction disputes in the Ugandan road construction sector. Retrieved from <http://makir.mak.ac.ug/handle/10570/3929>.
- Goldwich, D. (2010). *Win-win negotiation techniques: develop the mindset, skills and behaviours of winning negotiators (success skills series)*. Arshall Cavendish Corp/Ccb.
- Gündüz, M., Nielsen, Y., & Özdemir, M. (2012). Quantification of delay factors using the relative importance index method for construction projects in Turkey. *Journal of Management in Engineering*, 29(2), 133-139.
- Jaffar, N., Tharim, A. A., & Shuib, M. N. (2011). Factors of conflict in construction industry: a literature review. *Procedia Engineering*, 20(2011), 193-202. doi:10.1016/j.proeng.2011.11.156
- Jayasena, H. S., & Kavinda, Y. H. (2012). Most appropriate dispute resolution strategy for Sri Lankan construction industry. In *Proceedings of the 2012 World Construction Conference*, (pp.180-187). Colombo, Sri Lanka: Ceylon Institute of Builders.
- Kariyawasam G. S. K. (2016). *Handling negotiation deadlocks in Sri Lankan construction industry* (Unpublished master's thesis). University of Moratuwa, Sri Lanka.
- Kraemer, L.K. 2002. Survey research methodology in management information systems: an assessment. *Working paper on graduation of management of school*, University of California, California.
- Kumaraswamy, M. H., (1997). Conflicts, claims and disputes in construction. *Engineering, Construction and Architectural Management*, 4(2), 95-111. Retrieved from <http://www.emeraldinsight.com/journals.htm?articleid=1657308&>
- Kumaraswamy, M.H. & Yogeswaran, K. (2003). Substantiation and assessment of claims for extensions of time. *Journal of Project Management*, 21(1), 27-38.

-
- Lind, D. A., Marchal, W. G. & Wathen, S. A., (2005). *Statistical techniques in business & economics* (12th ed.). New York: McGraw Hill.
- Law Teacher. (2013). *Disputes can have serious implication in construction project contract law essay* Retrieved from <https://www.lawteacher.net/free-law-essays/contract-law/disputes-can-have-serious-implication-in-construction-project-contract-law-essay.php?cref=1>
- Lewicki, R. J., Saunders, D. M., & Minton, J. W. (2001). *Essentials of negotiations*. New York: Mc Graw-Hill Higher Education.
- Marston, D. L., (2000) *Project based dispute resolution: ADR momentum increases in the millennium* (2nd ed.). 48.221.
- Mitkus, S., & Mitkus, T. (2014). Causes of conflicts in a construction industry: a communicational approach. *Journal of Procedia - Social and Behavioral Sciences*, 110 (2014), 777-786, doi: 10.1016/j.sbspro.2013.12.922
- Murdoch, J., & Hughes, W. (2008). *Construction contracts: law and management* (4th ed.). USA: Tylor and Francis.
- Oxford Dictionaries. (2017). *Oxford Dictionaries | The World's Most Trusted Dictionary Provider*. [online] Retrieved from <https://www.oxforddictionaries.com>
- Ramus, J., Birchall, S., & Griffiths, P. (2007). *Contract practice for surveyors* (4th ed.). USA: Butterworth-Heinemann Publications
- Ren, Z. (2002). *A multi-agent systems approach to construction claims negotiation* (Doctoral dissertation). Retrieved from <https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/6813>
- Ren, Z., Shen, G. Q., Xue, X. L., & Hu, W. F. (2011). Lessons learned from principled negotiation in international construction projects. *Legal affairs and Dispute Resolution in Engineering and Construction*, 3(3), 123–132. doi: 10.1061/(ASCE)LA.1943-4170.0000055

-
- Reyes, V. M., (2014). *The false promise of principled negotiations* Retrieved from <https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?referer=https://www.google.lk/&httpsredir=1&article=1170&context=jgi>
- Senarathne, S. (2005). *A knowledge-based approach to managing project change in the construction phase within collaborative team settings* (Doctoral dissertation). University of Salford.
- Simons, T. (1992). *Dispute avoidance and resolution*. Retrieved from <http://www.fenwickelliott.co.uk>
- Skene, M., & Shaban, R. (2002). Strategies to avoid and resolve construction disputes. *In Proceedings of Canadian Construction Association Conference*, (pp. 1-22). Vancouver, Canada: Pacific Business & Law Institute.
- Shapiro, S. S. (n.d.). *Dispute prevention/resolution negotiation techniques*. Retrieved from http://www.shk.ca/docs/Dispute_Prevention_Resolution_Negotiation_Techniques.pdf
- Steen, R. H. (1994). Five steps to resolving construction disputes without litigation. *Journal of Management in Engineering*, 10(4), 19-21.
- Tan, W., 2002. *Practical research methods*. Singapore: Prentice Hall.
- Thomas, K. W., & Kilmann, R. H. (2010). *Thomas-Kilmann instrument conflict mode*. Retrieved from <https://www.cpp.com/pdfs/smp248248.pdf>
- Tenbergen, R. (2001). *Principled negotiation and the negotiator's dilemma – is the “getting to yes”-approach too “soft”?* Retrieved from <http://www.ifld.de/Education/Material/Negotiation%20Essay.pdf>
- Wong, K. C. (2011). Using an Ishikawa diagram as a tool to assist memory and retrieval of relevant medical cases from the medical literature. *Journal of Medical Case Reports*20115:120, doi.org/10.1186/1752-1947-5-120.
- Yiu, T. W., & Law, Y. M. (2011). Moderating effect of equity sensitivity on behavior-outcome relationships in construction dispute negotiation. *Journal of Construction Engineering and Management*, May (2011), doi: 10.1061/(ASCE)CO.1943-7862.0000290

- Yiu, T. W., & Lee, H. K. (2011). How do personality traits affect construction dispute negotiation? study of big five personality model. *Journal of Construction Engineering and Management*, March (2011), doi: 10.1061/(ASCE)CO.1943-7862.0000271

APPENDICES

APPENDIX A: QUESTIONNAIRE FOR EXPERT SURVEY

1.0 General overview

1.1. Please indicate your designation: _____

1.2. Please indicate your qualification level

Chartered Bachelor Degree Master Degree Other

1.3. Please state your years of experience

0 – 5 years 6 – 10 years 11 – 15 years 16 or more years

1.4. Please state your experience in foreign funded road construction projects

0 – 5 years 6 – 10 years 11 – 15 years 16 or more years

2.0 Guideline to fill the questionnaire

2.1. The study is aimed to gather knowledge on failure factors in adopting negotiation between the Contractor and the Engineer at Site level as a dispute avoidance mechanism in foreign funded road construction projects in Sri Lanka.

2.2. It is identified that disagreements cannot be completely avoided due to nature of construction industry and it is necessary to avoid such conflicts developing into disputes between the Employer and the Contractor which could drag them into costly and time taking ADR mechanisms.

2.3. It is identified that negotiation between the Contractor and the Engineer can be used effectively to manage conflicts and avoid them developing into disputes.

2.4. Please indicate your involvement in site level negotiation and assess the failure factors according to your experience and/ or from your observations in the negotiations done between the Contractor and the Engineer to manage conflicts but not in respect of negotiations done as an ADR mechanism after developing conflicts into disputes.

3.0 Your involvement in site level negotiation process

3.1 Are you aware on site level negotiation? Yes No

3.2 Do you have experience in site level negotiation? Yes No

3.3 Do you have experience in failed negotiation? Yes No

3.4 Please indicate which party you have represented in negotiations

Contractor Engineer Both

4.0 Failure factors of negotiations

Failure factors		Impact for the failure of negotiation process (i.e. probability of failure)				
		Very low 0% - 20%	Low 20% - 40%	Moderate 40% - 60%	High 60% - 80%	Very high 80% - 100%
		1	2	3	4	5
Unawareness	Benefits of effectively managing conflicts at Site level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Drawbacks of developing dispute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contract/legal terms and interpretations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Negotiation tactics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Handling negotiation deadlocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor Skills	Dealing with the people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Negotiation tactics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Handling negotiation deadlocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attitudes	“Time taking” attitude	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	“It’s not my problem?” attitude of Engineer representatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	"Not giving anything" attitude of Engineer representatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	“We can easily deal with the Employer?” attitude of Contractor representatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Should stick to the document?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Walkaway and go for next step as ADR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Practice	Representatives level of authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inability of focusing both interest and positions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inability of generating variety of possibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Limited use of objective criteria such as standards CoC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Factors (Please specify if any)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX B: INTERVIEW GUIDE FOR EXPERT SURVEY

1.0 General Overview

1.1 Your designation:

1.2 Your qualification:

1.3 Your total experience (years):

1.4 Your experience in road construction projects (years):

1.5 Are you aware on site level negotiation?

1.6 Do you have experience in site level negotiation?

1.7 Do you have experience in failed negotiation?

1.8 Which party did you represented in negotiations?

2.0 We did an expert survey and found that “**unawareness of Contract/legal terms and interpretations**” is the most common failure factor for negotiation at site level. What are the recommendations you proposed to improve this situation?

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3.0 The second most critical factor for failure of the site level negotiation is “**poor skills of dealing with the people, handling negotiation deadlocks, and negotiation tactics**”. What are the recommendations you proposed to improve this situation?

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4.0 The third factor is “**insufficient level of authority of party representatives**”.
What are the recommendations you proposed to improve this situation?

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.....

5.0 The forth factor is “**we can easily deal with the Employer**” attitude of
Contractor representatives. What are the recommendations you proposed to
improve this situation?

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