

**WIN-WIN SETTLEMENT: APPLICABILITY OF  
NEGOTIATION PRINCIPLES FOR DISPUTE  
NEGOTIATIONS IN CONSTRUCTION PROJECTS**

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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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Sri Lanka

January 2016

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## DEDICATION

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To my  
Mother & Father...

## ACKNOWLEDGEMENTS

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To complete this research study successfully, a great assistance was received from many people and organizations. Therefore, I use this opportunity to express my sincere thanks to all of them.

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## ABSTRACT

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Negotiation is identified as most appropriate dispute resolution mechanism for achieve settlement to construction disputes. As well as, negotiation is the most preferred dispute resolution mechanism selected by parties to construction contracts. However, it is experienced that parties continuously failing to reach settlements in an effective and efficient manner. Although many researches and authors write on how to carryout negotiations successfully those concepts hardly adopted in claims based dispute negotiations in construction projects. Construction dispute negotiations are different to other business negotiations due to some unique features inherited such as complexity, regulated by very sophisticatedly prepared conditions of contract, and tendency of discouraging claims. Therefore, it is identified that new theories and principles need to be developed and applied in claims based dispute negotiations. Thus, the study was focused on improvement of fundamental principles of negotiation to address characteristics of claim based disputes in construction projects.

The study was approached through a multiple case study and in-depth study was carried out on two selected cases which claims based dispute negotiation successfully concluded. Success factors of claims based dispute negotiation identified through literature review compared with actual setting of selected cases. Further, identified how parties have addressed special characteristics of claims based disputes in construction projects in conducting negotiations.

Analysis reveals that, how far theory can be explained through research findings and which theory should be extended based on knowledge explored in respect of claims based dispute negotiation in construction projects. Accordingly conceptual framework has developed and it is concluded that the negotiation process shall be merged with characteristics of construction disputes in order to achieve win-win settlement through negotiation. Major deviation from existing theory when applying to claims based dispute negotiation is negotiation shall be based on both position and interest of the parties.

Key words: Claims, Dispute resolution, Negotiation, Win-win settlement, Road projects

## TABLE OF CONTENTS

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<b>DECLARATION, COPYRIGHT STATEMENT AND THE STATEMENT OF THE SUPERVISOR .....</b>	<b>i</b>
<b>DEDICATION.....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>iii</b>
<b>ABSTRACT.....</b>	<b>iv</b>
<b>LIST OF FIGURES .....</b>	<b>ix</b>
<b>LIST OF TABLES .....</b>	<b>x</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>xi</b>
<b>1. INTRODUCTION TO THE RESEARCH.....</b>	<b>1</b>
1.1. Background.....	1
1.2. Problem Statement.....	4
1.3. Aim .....	5
1.4. Objectives .....	5
1.5. Research Methodology .....	5
1.6. Scope and Limitations.....	6
1.7. Chapter Breakdown .....	7
<b>2. NEGOTIATION .....</b>	<b>8</b>
2.1. Introduction.....	8
2.2. Negotiation Styles.....	9
2.2.1. Principled negotiation.....	10
2.3. Negotiation Process .....	12
2.4. Steps to Make a Successful Negotiation .....	12
2.4.1. Step 1: Getting people into negotiation .....	13
2.4.2. Step 2: Forming negotiation team .....	14
2.4.3. Step 3: Setting up bottom lines.....	14
2.4.4. Step 4: Separate the people from the problem.....	16
2.4.5. Step 5: Focus on interests, not positions .....	16
2.4.6. Step 6: Invent options for mutual gain .....	17
2.4.7. Step 7: Insist on using objective criteria.....	18

2.4.8. Step 8: Summarising discussion and keeping minutes of meetings .....	18
2.5. Summary .....	19
<b>3. CONSTRUCTION CLAIMS NEGOTIATION.....</b>	<b>20</b>
3.1. Construction Industry.....	20
3.2. Construction Claims.....	21
3.3. Claims Management Process .....	22
3.4. Construction Disputes and Dispute Resolution .....	23
3.5. Negotiation as an ADR Mechanism .....	24
3.6. Characteristics of Claim Negotiation.....	25
3.6.1. Negotiators .....	26
3.6.2. Complexity .....	26
3.6.3. Contract Governance .....	27
3.6.4. Bounded Self-Interested Relationship.....	27
3.7. Summary .....	29
<b>4. RESEARCH METHODOLOGY .....</b>	<b>30</b>
4.1. Research Philosophy .....	30
4.2. Research Approach .....	31
4.3. Research Strategy.....	31
4.4. Research Technique .....	32
4.4.1. Sampling.....	32
4.4.2. Data collection.....	33
4.4.3. Data analysis.....	34
4.5. Summary .....	35
<b>5. DATA ANALYSIS AND RESEARCH FINDINGS.....</b>	<b>36</b>
5.1. Case A.....	36
5.1.1. Project details .....	36
5.1.2. Claim history .....	36
5.1.3. Claim details of Case A.....	37
5.1.4. Negotiations.....	37



5.1.5. Settlement .....	38
5.2. Case B .....	38
5.2.1. Project details .....	38
5.2.2. Claim details of Case B .....	39
5.2.3. Negotiations.....	40
5.2.4. Settlement .....	42
5.3. Content Analysis .....	42
5.3.1. Step 1: Getting people into negotiation .....	43
5.3.2. Step 2: Forming negotiation team .....	44
5.3.3. Step 3: Setting up bottom line .....	48
5.3.4. Step 4: Separate the people from the problem.....	50
5.3.5. Step 5: Focus on interests, not positions .....	51
5.3.6. Step 6: Invent options for mutual gain .....	53
5.3.7. Step 7: Insist on using objective criteria.....	54
5.3.8. Step 8: Summarising discussion and keeping minutes of meetings .....	54
5.4. Pattern Matching .....	55
5.4.1. Step 1: Getting people into negotiation .....	55
5.4.2. Step 2: Forming negotiation team .....	56
5.4.3. Step 3: Setting up bottom lines.....	57
5.4.4. Step 4: Separate the people from the problem.....	58
5.4.5. Step 5: Focus on interests, not positions .....	58
5.4.6. Step 6: Invent options for mutual gain .....	59
5.4.7. Step 7: Insist on using objective criteria.....	59
5.4.8. Step 8: Summarising discussion and keeping minutes of meetings .....	60
5.4.9. Summary.....	60
5.5. Cognitive Map for Steps for Successful Claims Negotiation .....	67
5.6. Summary .....	69
<b>6. CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>70</b>
6.1. Summary of the Study .....	70
6.1.1. Completion of the first objective .....	71
6.1.2. Completion of the second objective .....	73

6.1.3. Completion of the third objective.....	73
6.1.4. Completion of the fourth objective.....	74
6.1.5. Completion of the fifth objective .....	75
6.2. Conclusion .....	77
6.3. Recommendations.....	77
6.3.1. Contribution to the knowledge .....	77
6.3.2. Industry practitioners.....	77
6.4. Limitations of the Research .....	78
6.5. Further Research Directions .....	78
<b>REFERENCES.....</b>	<b>80</b>
<b>APPENDICES</b>	
APPENDIX A: LIST OF DOCUMENTS REVIEWED .....	86
APPENDIX B: TERMS AND DEFINITIONS .....	87
APPENDIX C: INTERVIEW GUIDE FOR CONTRACTOR REPRESENTATIVE.....	88
APPENDIX D: INTERVIEW GUIDE FOR EMPLOYER REPRESENTATIVE.....	92
APPENDIX E: INTERVIEW GUIDE FOR ENGINEER REPRESENTATIVE .....	96

## LIST OF FIGURES

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Figure 2.1: Zone of possible agreement.....	15
Figure 5.1: Coding structure of negotiation process.....	43
Figure 5.2: Coding structure of step 2: forming negotiation team.....	44
Figure 5.3: Coding structure of step 3: setting up bottom line .....	48
Figure 5.4: Coding structure of step 5: focus on interest, not position .....	51
Figure 5.5: Cognitive map of research findings.....	68
Figure 6.1: Theoretical framework to achieve win-win settlement .....	72
Figure 6.2: Conceptual framework to achieve win-win settlement .....	76

## LIST OF TABLES

---

Table 2.1: Elements of principled negotiation .....	10
Table 2.2: Principled negotiation vs. soft and hard negotiation .....	11
Table 2.3: Steps to make a successful negotiation.....	13
Table 5.1: Claim summary of case B .....	39
Table 5.2: Theory verses research findings .....	61

## LIST OF ABBREVIATIONS

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ADR	-	Alternative Dispute Resolution
CBSL	-	Central Bank of Sri Lanka
DCS	-	Department of Census and Statistics
FIDIC	-	International Federation of Consulting Engineers
GDP	-	Gross Domestic Product
ICTAD	-	Institute for Construction Training and Development
MDB	-	Multilateral Development Bank
MFP	-	Ministry of Finance Planning
PMI	-	Project Management Institute
RDA	-	Road Development Authority
SWOT	-	Strengths, Weaknesses, Opportunities and Threats
UNCITRAL	-	United Nations Commission on International Trade Law
ZOPA	-	Zone of Possible Agreement

# 1. INTRODUCTION TO THE RESEARCH

The chapter one provides an overview to the research including background and rationale behind the research. Further, the chapter clarifies the aim, objectives, scope of the research and the methodology that the research carried out.

## 1.1. Background

Construction project is complex in technical, economic and environmental aspects which generates enormous changes to the as-planned work. Thus, construction project inherits various risks by its nature which cannot be eliminated (Zou, Zhang & Wang, 2007) causing almost all construction contract faces cost or time overruns. Very few, almost none, construction contracts had been completed without claims which were made for extension of time for completion or additional payments (Ren, 2002). Thus, in construction projects, “claims are unavoidable and in fact necessary to contractually accommodate unforeseen changes in project conditions” (Kumaraswamy, 1997, p.97).

Unsettled claims lead to disputes between parties to the contract (Malak, El-Saadi & Abou-Zeid, 2002), which is common in construction industry. Often parties fail to reach settlements for these disputes “in an effective, economical and timely manner” (Barrie & Paulson, 1992 cited in Ren, 2002, p.17) besides parties tend to be adversarial (Cheung, Yin & Yeung, 2006). Therefore, resolving disputes is often associated with high costs and takes considerably long time. Hence progress of work get disrupted and lead to severe losses in both direct and indirect ways. Thus a dispute can jeopardize objectives of both project and parties involved in causing damage to the industry in broader sense (Ramus, Birchall & Griffiths, 2007).

Construction can include erection, repair and demolition of buildings such as residential, commercial, offices, factories or civil engineering structures such as dams, bridges, roads (Murdoch & Hughes, 2008). Construction of roads is a

significant share in construction industry of a country. It mainly consists of construction of new roads, widening of existing roads and road maintenance (Road Development Authority [RDA], 2007). Sri Lankan government has launched ten years development plan in 2010 which has given special attention to improve road network of the country (Ministry of Finance Planning [MFP], 2010). According to RDA (2007), it is identified that “more than 50% of the entire road network, including national and provincial roads, is in poor to bad condition, requiring either rehabilitation or upgrading” (p.8). Further it states that, “there is an urgent need to embark on a program for the construction of new intercity highways” (RDA, 2007, p.8). Ren (2002) pointed out that almost all construction contracts cannot be free from claims. Accordingly multimillion road development projects which are progressing and which will commence in future cannot be free from claims.

To resolve construction disputes parties use several methods such as negotiation, mediation, conciliation, adjudication, arbitration and litigation. Due to numerous advantages inherited such as cost effectiveness, informality, speediness, simplicity, confidentiality, party autonomy and preservation of business relationship (Jayasena & Kavinda, 2012; Ren, Shen, Xue & Hu, 2011), negotiation is identified as the most suitable (De Zylva, 2007) and the preferred (Jayasena & Kavinda, 2012) method of resolving construction disputes.

“Negotiation is a strategy of conferring with parties of shared or opposed interests with a view to compromise or reaches an agreement” (Project Management Institute [PMI], 2008, p.421). Thus negotiation is a non-adversarial dispute resolution process where parties voluntarily involve in. People generally involve in negotiation in everyday activities for various purposes which can be observed in a simple bargaining at market to crisis negotiation over rescuing a hostage. Thus, negotiation is a widely researched area under different field of studies over years.

Construction dispute negotiation is a business negotiation which is not simple as bargaining at market. As one construction lawyer had written, negotiation is a game,

but if it is not practiced properly the game can be deadly because construction disputes worth millions of money (Shapiro, n.d.). However it is not widely studied about using negotiation as an Alternative Dispute Resolution (ADR) mechanism to resolve construction disputes (Ren, 2002). Only recently it is identified as an important area to be developed through research studies. Different researchers studied construction dispute negotiation under different segments, such as improvement of fundamental principles of negotiation (Cheung, Wong, Yiu & Kwok, 2008; Cotton, 2013; Lu & Liu, 2013; Ren et al., 2011), importance of physiological factors such as skills required, styles and tactics used by negotiators (Cheung et al., 2006; Yiu, Keung & Wong, 2011), possibilities of adopting advance information technologies to facilitate negotiation process (Ren, Anumba & Ugwu, 2000; Ren, 2002) and use of mathematical models assuming rational negotiations (Yuan & Ma, 2012).

Negotiation plays a significant role in prevention and resolution of disputes arisen through unsettled claims (Ren, 2002). Unresolved claims tend to be settled amicably by the parties at first instance of the dispute before starting any adversarial process (Cheung et al., 2006). Further standard forms of contracts and arbitration acts encourage amicable settlements (Arbitration Act, 1995; FIDIC, 1999, 2006). However it can be seen that claim negotiations are often difficult, adversarial, inefficient and ineffective (Ren, 2002; Hu, 2006 cited in Ren et al., 2011). Further Cheung and Chow (2011) stated that parties to construction contracts continuously fail in reaching settlement through negotiation. Ren et al. (2011) identified that “new theories and principles need to be developed and applied in claims based dispute negotiations” (p.131). Thus the study is focused on improvement of fundamental principles of negotiation to adopt in claim based disputes settlement in construction industry.

Construction dispute negotiation has some unique features compared to other business negotiations (Ren et al., 2011). In claims based dispute negotiation, generally either one party or both contractor and employer exaggerate the opening demand by misrepresenting their contractual and/or legal positions or interests



(Pickavance, 2005). Further negotiation starts merely with intuition or personal judgments or ego which makes parties lock in their positions. In general, especially when claim events caused by mistakes of the consultant (Ren et al., 2011) they commence negotiation with no-giving attitude disregarding the merits of the claim (Thomas, 2001). Further in a general business negotiation practices, if a deadlock appears and get to know that it is impossible to get the expected outcome, parties tends to walk away from negotiation process. However in construction, disputants cannot easily move out from the negotiation unless they move in to an adversarial dispute resolution method (Ren et al., 2011).

Fail in negotiation makes parties move in to adjudication, arbitration or other dispute resolution method according to conditions of contract (Ren et al., 2011). This is more costly, time consuming and adversarial in nature and can damage parties relationship (Ren, 2002). Further long term dragged disputes damage project objective of completing project within set budget, time and required quality (Ramus et al., 2007). Ren et al. (2011) stated that there is a high requirement in construction industry to settle disputes through negotiation and it is required to be developed in more effective approaches.

In respect of road development projects, since the employer to the contracts is a state organization, which expense public money, team members are answerable to decisions they make. Therefore it is identified that finding out applicability of negotiation principles to road development projects in local context while addressing how to overcome barriers to achieve successful outcome is timely necessary. Further developing a conceptual framework to achieve win-win outcome from negotiation based on the actual setting will be helpful.

## **1.2. Problem Statement**

Hence there is a need to identify steps to be followed to achieve a win-win settlement for claims based dispute negotiation while addressing identified barriers specialised

for construction. Accordingly this study focuses on how to achieve a win-win settlement for claims based disputes negotiation in construction industry.

### **1.3. Aim**

The aim of the research is to develop a conceptual framework to carryout negotiations successfully to achieve win-win settlement for claims based disputes in construction.

### **1.4. Objectives**

The study followed five objectives:

1. To identify negotiation principles for conducting negotiations towards win-win settlement
2. To identify characteristics of construction claims that influence success of negotiating claims based disputes
3. To explain the negotiation principles applicability to claims based disputes negotiation
4. To explore how to achieve win-win settlement through extending negotiation principles by addressing special characteristics of construction claims
5. To develop a conceptual framework for conducting the claims based dispute negotiation successfully to achieve win-win settlement

### **1.5. Research Methodology**

First two objectives were achieved through review and synthesizing existing literature. This research developed a conceptual framework to achieve win-win outcome from claims based dispute negotiations specialized with characteristics of construction industry. Thus, research explains the current theoretical framework identified and extends it by exploring application to special characteristics of

construction industry. Hence research is a combination of explanatory study and exploratory study which extends the theory.

In this study research philosophy is more towards interpretivism. Research strategy often used for interpretivism research philosophy is case study (Saunders, Lewis & Thornhill, 2009). Further Yin (2003) explains, when a 'how' or 'why' question is to be addressed about a contemporary set of events which the researcher have less or no control, case study approach is useful. Furthermore, it is identified the case study method has the ability to examine a case in-depth within its real-life context (Yin, 2004). Therefore case study was selected to gain in-depth knowledge of real-life practice to achieve the fourth and fifth objectives of the research. Unit of analysis of the study is a claim based dispute which was successfully resolved through negotiation.

The final objective was achieved based on the findings of the third and fourth objectives where the conceptual framework was developed to achieve win-win settlement in claims based dispute negotiation in road development projects. Appropriate data collection and analysis tools were used based on the method employed for each objective.

## **1.6. Scope and Limitations**

In order to avoid complexities associated with different project cultures, only foreign funded road improvement projects were selected to study. Cases were selected when disputed claim amount was more than 40% of initial accepted contract amount in order to avoid complexities associated with different claim situations.

For a claim based dispute negotiation, settlement can be reached through two different approaches; that is, position base negotiation and interest base negotiation. Study was limited to two cases to cover both possible approaches in reaching settlement through negotiation.

## **1.7. Chapter Breakdown**

The dissertation report is structured in a way to present the research study in a logical flow for better comprehension. Though resembled closely, it does not necessarily follow the chronological order of the research process.

The chapter one provides an overview to the research which includes background and rationale behind the research. Further it clarifies the aim, objectives, scope of the research and the methodology that the research is carried out.

The chapter two establishes the theoretical framework; that is, theory behind the success of a negotiation. This analyses and synthesizing existing knowledge related to principles of negotiation theories and steps negotiation followed to achieve win-win settlement.

The characteristics of construction industry which act as barriers to adopting theoretical framework are studied under chapter three. It analyses and synthesizes literature on construction claims management and using of negotiation as an ADR method.

The chapter four explains the methodology adopted to carry out this study which includes research design, data collection methods and techniques of data analysis.

Analysis of collected data and presenting of summarized findings of the research are presented in chapter five.

Final chapter concludes findings of the research including recommendations and further research approaches.

## **2. NEGOTIATION**

Chapter two is planned to synthesis current knowledge on negotiation principles. At the beginning this chapter illustrates concepts of negotiation practised over years in various business negotiations. Further this chapter discusses steps to be required to adopt in achieving win-win outcome from a negotiation.

### **2.1. Introduction**

Negotiation is a day to day process which every person does for various purposes (Fisher, Ury & Patton, 1991; Ghauri, 2003). Negotiation is an extensive area. It can be a discussion between family members or a simple bargaining over product in the market or can be extended to peace talks between two nations or a crisis negotiation over rescuing a hostage. Therefore negotiation is a widely researched area under different field of studies such as social science (Fisher et al., 1991; Lickson & Maddux, 2005), economics (Ghauri, 2003; Mahmoodi, 2012; Ren et al., 2011) and politics (Dolnik, 2007; Vecchi, Hasselt & Romano, 2004).

Negotiation is defined by many researchers in various ways. Fisher et al. (1991) stated that the “negotiation is a basic mean of getting what you want from others” (p.6). Further they explained that “it is a back-and-forth communication designed to reach an agreement” (p.6). The explanation gives the idea that “getting what you want from others” through negotiation is not a simple task. Following researches also elaborated this idea when explaining what negotiation is.

“Negotiation 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” (Hammer & Clay, 1977 cited in Ren, 2002, p.120).

“Negotiation is a process of submission and consideration of offers until an acceptable offer is made and accepted” (Hoogenboom & Dale, 2005 cited in Marzouk & Moamen, 2007, p.135).

“Negotiation is a strategy of conferring with parties of shared or opposed interests with a view to compromise or reaches an agreement” (PMI, 2008, p.421).

## **2.2. Negotiation Styles**

Negotiation can be carry out in wide range of forms, which are called negotiation styles. Negotiation styles are generally discussed according to their conflict management style (Cheung et al., 2006). However various research studies has identified negotiation styles in different ways.

Fisher et al. (1991) suggested three ways to conduct negotiation: soft, hard and principled negotiation. Sebenius (n.d.) and Mahmoodi (2012) divided ways of negotiating in to two. Sebenius (n.d.) named it as creating value and claiming value while Mahmoodi (2012) identified it as competitive and co-operative. Further Lickson and Maddux (2005) broke up these negotiation styles in to four categories while considering both ways of conducting and outcome of the negotiation: forcing/adversarial (win/lose), accommodating (lose/win), compromising (give/get) and collaborative/non-adversarial (win/win). Furthermore Thomas and Kilmann (2010) developed a conceptual framework and classified conflict handling styles in to five; competing, collaborating, compromising, avoiding and accommodating. Cheung et al. (2006) and Cheung et al. (2008) as well classified conflict handling styles under five headings; integrating, obliging, dominating, avoiding, and compromising.

Selecting a negotiation style according to the circumstances is helpful to achieve desired outcome. Predetermination of most appropriate negotiation style will help to select suitable negotiators, delegation of power, keep influencing level, set the tone,

etc (Berghoff, Fieweger, Linguanti, Morkin & Vigil, 2007). Thus, negotiation style is considered as one of most important area in negotiation process.

Cheung and Chow (2011) found out that the construction disputes are fit with the principled negotiation. Further, the study is focused on improvement of fundamental principles of negotiation to match with construction claims negotiation. Therefore, it is decided to adopt classification suggested by Fisher et al. (1991) that is soft, hard and principled negotiation for this research study.

### 2.2.1. Principled negotiation

Many researches identify principled negotiation as the best problem-solving mechanism (Fisher et al., 1991; Galloway, 2013; Ren et al., 2011; Sebenius, n.d.). Principled negotiation is a conceptual method developed as a better problem solving mechanism by focusing on merits or real interests behind the issue (Fisher et al., 1991; Ren et al., 2011). According to Fisher et al. (1991) principled negotiation developed by focusing on what parties should do in respect of basic four element of negotiation. That is,

Table 2.1: Elements of principled negotiation

<b>Element</b>	<b>What should do</b>
People	Separate the people from the problem
Interests	Focus on interests, not positions
Options	Generate a variety of possibilities before deciding what to do
Criteria	Insist that the result be based on some objective standard

Source: Fisher et al. (1991)

Table below shows how the principled negotiation contrasts with soft and hard positional negotiation.

Table 2.2: Principled negotiation vs. soft and hard negotiation

<b>Problem</b>		<b>Solution</b>
Positional Bargaining: Which Game Should You Play?		Change the Game - Negotiate on the Merits
<b>Soft</b>	<b>Hard</b>	<b>Principled</b>
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 in to 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

### **2.3. Negotiation Process**

Negotiation is a process of submission and consideration of offers between parties which aimed to reach an agreement (Fisher et al., 1991). Different researchers identified steps of a successful negotiation in different ways. Ren et al. (2000) discuss steps of a successful negotiation under two stages, that is, preparation and negotiation. Both Ghauri (2003) and Ren (2002) identified that under three stages. That is, pre-negotiation stage, negotiation stage and post negotiation stage. This concerned on after-effects of negotiation sessions and actions to be taken in post negotiation stage to achieve successful outcome through negotiation. Thus, it is identified that the study conducts mainly through these three stages is important.

### **2.4. Steps to Make a Successful Negotiation**

According to literature it is identified eight steps to make a negotiation success under three stages of negotiation process which is shown in Table 2.3 as follows.

Table 2.3: Steps to make a successful negotiation

		<b>Steps to Make a Successful Negotiation</b>	
<b>Stage</b>	<b>Pre-Negotiation</b>	Step 1	Getting people in to negotiation
		Step 2	Forming negotiation team
		Step 3	Setting up bottom lines
	<b>Negotiation</b>	Step 4	Separate the people from the problem
		Step 5	Focus on interests, not positions
		Step 6	Invent options for mutual gain
		Step 7	Insist on using objective criteria
	<b>Post Negotiation</b>	Step 8	Summarising discussion and keeping minutes of meetings

Pre-negotiation stage consists of three steps which should be followed in sequence before sit in the negotiation table. Those steps are getting people in to negotiation, forming negotiation team and setting up bottom lines. Further, when both teams sit in the negotiation table they have to adhere to four more steps which are parallel steps can be used to carry out meeting successfully. Those parallel steps are separate the people from the problem, focus on interests, invent options for mutual gain and insist on using objective criteria. At the end of the negotiation, to conduct negotiation efficiently it is identified the parties should summarising discussion and keeping minutes of meetings as last step.

#### **2.4.1. Step 1: Getting people in to negotiation**

Ghuri (2003) identified that through informal meetings and information gatherings, parties try to understand each other's needs and demands in pre-negotiation stage. Accordingly the parties decide whether to commence, continue or abandon the negotiation. Ren et al. (2011) stated that unlike any other business negotiations,

getting people in to negotiation table is the hardest in case of a dispute negotiation. Further since negotiation is a voluntary process, parties' real interest to resolve their dispute through negotiation is important to achieve a successful outcome.

#### **2.4.2. Step 2: Forming negotiation team**

Selecting negotiators in forming negotiation team is an important task which should be done in pre-negotiation stage. When selecting negotiators few facts to be considered as follow. Smith (1992) identified that the negotiator should be capable in adopting more than one negotiation style. Further he recognized that emotional people should not be selected as negotiators since their emotions easily can get them in to trouble. Besides in case of other party's negotiators are known, it is important to select people who will interact easily with them. Furthermore Ren (2002) stated that the parties should define their representative's authority level which will be helpful in making successful conclusions to a negotiation.

#### **2.4.3. Step 3: Setting up bottom lines**

Proper preparation is essential to negotiate successfully (Ghauri, 2003; Ren, 2002; Ren et al., 2011). Preparation is time consuming hard work which has to be followed by each party before sitting at the negotiation table in order to gain a better outcome (Ren et al., 2000).

Proper planning strengthens self-confidence of the negotiators (Mahmoodi, 2012) and avoids agreeing in to settlements by over compromising which is not possible to be lived with (Thomas, 2001). Sometimes parties try to cut down their loss through negotiations (Yuan & Ma, 2012). Knowing their own weaknesses will minimise creation of unreasonable deadlocks. Thus preparation is very important in performing an effective negotiation.

In negotiation each party has a ‘bottom line’ which is referred as ‘reservation point’ or ‘walk away point’ by different researches. Ren (2002) defined value of the reservation point as “the maximum or minimum amount which a party can offer to or accept from its opponent” (p.166). According to Raiffa (1982), it is a point where a party breaks off and walks away from negotiation instead of move forward with the negotiation or compromise further.

Overlap range between reservation points of the parties constitutes the possible scope of an agreement which is called ‘Zone of Possible Agreement’ (ZOPA). However value of reservation point is generally kept secret from opposing party (Alfredson & Cungu, 2008; Ren, 2002). Therefore this is a theoretical “zone” which is not known to the parties and only possible to identify through negotiating (Alfredson & Cungu, 2008).

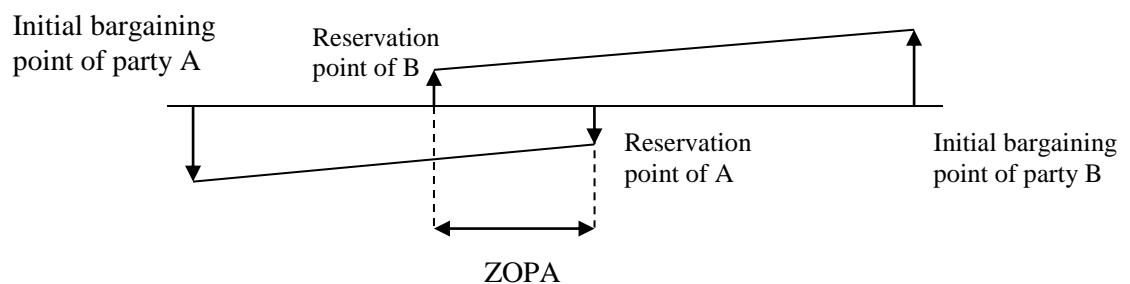


Figure 2.1: Zone of possible agreement

However SWOT analysis can be used as a tool to determine reservation point of the negotiation. SWOT analysis is a vital basic work tool which can be used to analyse status of the parties (Mahmoodi, 2012). A party should identify both himself and his opponent’s positions. This basically carryout a detailed analyses on internal strengths and weaknesses, along with external opportunities and threats in respect of the negotiating case (Bruneski & Chen, 2007; Mahmoodi, 2012). Thus SWOT analysis can be used to set up bottom lines as preparation in pre-negotiation stage.

#### **2.4.4. Step 4: Separate the people from the problem**

A basic fact about negotiation is negotiators are not simply business representatives of each side, but human beings with “emotions, deeply held values, and different backgrounds and viewpoints” (Fisher et al., 1991, p.14).

This human aspect of the negotiators makes negotiations difficult. People easily get angry, aggressive, unhappy and offended. Fisher et al. (1991) explained 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.) stated that, at the negotiation table parties should avoid the debate getting personal but keep everything on business level. He further explained understanding that each party has different views and it is worthy of expression which helpful to achieve a successful outcome. Fisher et al. (1991) further elaborate this stating that “the participants should come to see themselves as working side by side, attacking the problem, not each other” (p.11).

Hence to deal with first element of the principled negotiation, that is people, is to separate them from the problem.

#### **2.4.5. Step 5: Focus on interests, not positions**

Positions are what parties say that they want, but interests are things that people really need. Often position and interest are not the same (Ren et al., 2011). Fisher et al. (1991) stated that “the basic problem in a negotiation lies not in conflicting positions, but in the conflict between each side's needs, desires, concerns, and fears” (p.24). Thus to understand the true problem behind the dispute, it is required to identify what real interests of the parties. Ren et al. (2011) further explained that the

people have a tendency in their minds to challenge to the opponent's position by taking extreme positions. However, Ren et al. (2011) found that the "underlying true interests are actually compatible, not mutually exclusive" (p.124). Hence to achieve win-win outcome parties should focus on interests, not on positions.

#### **2.4.6. Step 6: Invent options for mutual gain**

Fisher et al. (1991) pointed out that generally people negotiated with a belief in mind that their offer is reasonable and it should be accepted by the other party. When it comes to dispute negotiation, people usually believe that they are right and they know the right answer. Therefore usually parties fight over original positions trying to achieve win-lose outcome without focus on win-win solution.

According to Fisher et al. (1991) there are four major obstacles which refrain parties from inventing options for mutual gain. First barrier for creative thinking is premature judgment. In a stressed situation like a dispute negotiation party might not likely to start invent imaginative solutions because of fear of being look foolish or fear of jeopardizing your bargaining position due to disclosure of information.

Second barrier is premature conclusion that is searching for the single answer, which they think as right one. Fisher et al. (1991) expressed most people think that "inventing is not a part of the negotiating process" (p.32). By looking at specific single answer avoid selecting best answer from a large number of possible answers likely to come through a wiser decision-making process.

Assumption of a fixed pie is the next barrier of creative thinking. In other words it is win-lose mind-set. Although there are few good options on the table parties think "either I get what is in dispute or you do" (Alfredson & Cungu, 2008; Fisher et al., 1991)

Final obstacle is thinking that "solving their problem is their problem". Short sighted self-concern attitude drive a negotiator towards biased solutions only. However it is essential to think cleverly and figure out different possibilities of meeting both sides' interests.

Overcoming those barriers will lead the parties to innovative options to the real problem behind the dispute.

#### **2.4.7. Step 7: Insist on using objective criteria**

Fisher et al. (1991) suggested that when parties could not come to a solution, looking at an objective criteria will help to resolve the issue. They further explained that the objective criteria should have following characteristics. It should be independent, impartial, legitimate and practical. Objective criteria can vary from case to case, such as market value, scientific judgment, standards, decided cases, etc.

Having identified some objective criteria and procedures make it possible to bring fairness, efficiency or scientific merit to the negotiation (Fisher et al., 1991). Further it helps to taking out emotions and allows both parties to take decisions on rational and logical basis (Ren et al., 2011). This will make the end result wise and fair (Fisher et al., 1991). Parties tend to accept outcome based on the objective criteria since the result is "not under the control of any single party" (Ren et al., 2011, p.124).

#### **2.4.8. Step 8: Summarising discussion and keeping minutes of meetings**

Negotiation may not be over in a single session, but it will drag much more. At the end of each negotiation session summarising discussion and keeping minutes of meetings is important (Ghauri, 2003). It will help to continue negotiation without unnecessary delays by avoiding discussion over and over about same issue. Further

this will help to draft the agreement at the post negotiation stage incorporating all terms have been agreed in negotiation (Ghauri, 2003).

## **2.5. Summary**

Negotiation is a process of back-and-forth communication between parties which is aimed to reach an agreement. Negotiation is studied by many researchers in various aspects. For general business negotiations three ways are identified to conduct negotiation; that is soft, hard and principled negotiation.

Principled negotiation is a method developed as a better problem solving mechanism by focusing on merits or real interests behind the dispute. Based on concepts of principled negotiation but not limited to that, eight steps had been identified to be followed to achieve successful outcome from a negotiation.

At the pre-negotiation stage getting people in to negotiation table is first step to be taken. Forming the negotiation team including setting their authority level is the second step. Most important and hard step is the proper preparation by evaluating status of each side and setting up bottom lines before sit in the negotiation table.

At the face to face negotiation there are four main steps to be followed by negotiators to achieve a successful result. Separate the people from the problem will helps to keep negotiation in business level and avoid emotions come as a barrier. Focus on real interests of the dispute, invent options for mutual gain and use objective criteria are steps to be taken at the stage of negotiation.

At the post negotiation stage, summarising discussion and keeping minutes at the end of each discussion will help to continue negotiation without unnecessary delays. Last step to complete a successful negotiation is to draft the agreement incorporating all terms have been agreed between parties.



### **3. CONSTRUCTION CLAIMS NEGOTIATION**

Purpose of the study is merging negotiation principles with construction claims management requirements to improve negotiation practices as a successful ADR mechanism to achieve win-win settlement for construction disputes. The intention of chapter three is to develop a basic understanding of construction claims management while reviewing the barriers of adopting theoretical concepts identified in previous chapter on claims negotiation.

#### **3.1. Construction Industry**

Construction includes erection, repair and demolition of buildings and civil engineering structures (Murdoch & Hughes, 2008). Construction industry plays a major role in an economy of a country. In Sri Lankan economy construction industry is the fourth largest sector which contributes 6-8% to Gross Domestic Product (GDP) over past decade (Central Bank of Sri Lanka [CBSL], 2013). Construction sector contributes 8.1% to GDP in year 2012 (CBSL, 2013) and it has a 21.6% growth compared to year 2011 (Department of Census and Statistics [DCS], 2013).

Sri Lankan government has identified that development of road network helps to accelerate economic growth, share regional development, increase possibilities of national integration and political stability. Therefore “the government has accorded the highest priority to improving entire network of roads in the country with modern technology during the period 2011 – 2020” (MFP, 2010, p.90). Construction of roads contributes to a significant share in construction industry which invests large sum of both local and foreign funds through one of the biggest public sector employer. Finance for road sector is expected to rise through foreign funding, long term funding arrangements done by domestic private sector construction companies, national budget and public private partnership arrangements (MFP, 2010).

### 3.2. Construction Claims

Construction project is always a trial product. Therefore major factors such as cost, time and quality of the product are impossible to be predetermined. Enormous changes occur to the as-planned work as a result of complexity in technical, economic and environmental aspects. Thus construction project inherits various risks by its nature which cannot be eliminated (Zou et al., 2007; Murdoch & Hughes, 2008). Almost every construction contract faces cost or time overruns (Ren, 2002).

Kumaraswamy (1997) defined a claim is “assertions for extra money or time” (p.97). Jayalath (2013) further explains “a claim is basically an assertion for additional compensation in terms of time and/or cost in relation to a change in the contract or otherwise” (p.19). However general conditions of contract in FIDIC (1999) and FIDIC (2006) explain that under Sub-Clause 20.1 [*Contractor’s Claims*] the contractor can initiate a claim by giving notice to the consultant, describing the event or circumstance giving rise to the claim,

“If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract”

This contain important features in respect of contractor’s claim,

1. If the Contractor considers himself to be entitled
2. Any extension of the Time for Completion and/or any additional payment
3. Under any Clause of these Conditions
4. Or otherwise in connection with the Contract

Thus FIDIC standard forms of contracts keep it open rather than define what claim means. Keeping open gives opportunity to express any entitlement which a party to the contract thinks reasonable. Accordingly claim can be defined as follows. A claim is a statement made by a party who considers himself to be entitled to any extension

of the Time for Completion and/or any additional payment, under any condition agreed in contract or otherwise in connection with the contract.

In construction contracts claims are unavoidable as well as necessary to demand compensation in terms of time and/or cost incurs due to unforeseen changes in project setting (Kumaraswamy, 1997; Ren, 2002).

Over years to reduce claim possibilities many new concepts have been introduced such as design and built, partnering procurement methods. However none of those has helped to avoid claims and claims management has become more and more complex and confusing (Barrie and Paulson, 1992 cited in Ren, 2002). Further with rising scale and complexity of construction process number of construction claims increase with time (Marzouk & Moamen, 2007).

### **3.3. Claims Management Process**

Claims management is a process which starts from claims identification and ends with settlement (Malak et al., 2002). According to FIDIC (1999) and FIDIC (2006) claims management consists of claims identification, notification, preparation, evaluation and settlement.

FIDIC (1999) and FIDIC (2006), Sub-Clause 20.1 [*Contractor's Claims*] requires claim events to be identified and timely notified to the consultant mandatorily. Timely notice allows other party to take mitigation measures to reduce time or cost overrun. Therefore if notice is condition precedent, the contractor will lose his right to claim in case of failure to notification (Malak et al., 2002; Jayalath, 2013).

“Fully detailed claim which includes full supporting particulars of the basis of the claim” (FIDIC, 1999; FIDIC, 2006) shall be prepared within the stated time period in conditions of contract. Further according to the Sub-Clause 20.1 [*Contractor's Claims*] “the Engineer shall respond with approval, or with disapproval and detailed

comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time". Evaluation shall be done step by step which includes checking of cause, effect and damage, evidence, calculations, etc. However "the evaluation of claims is not an exact science" (Thomas, 2001, p.226), it is unique and depends on the claim. Therefore the consultant's determination can have doubts and possibility of creating conflicts is significantly high.

### **3.4. Construction Disputes and Dispute Resolution**

Claims are complex in nature and cannot be seen as a clear determination easily. Since construction claims are based on carefully drafted conditions of contract (Cheung et al, 2008), disputes are based on question "is the claimant entitled for what he asked?" (Ren et al., 2011). Therefore construction claims always come together with arguments and evidence in support of the case (Wideman, 1990). Accordingly claims tend to creates conflicts between parties (Ren et al., 2011). Thus disputes in construction industry are direct outcomes from unresolved claims (Malak et al., 2002; Ren, 2002; Ren et al., 2011).

Generally parties to construction contracts fail to settle disputes in an effectively and efficiently (Barrie & Paulson, 1992 cited in Ren, 2002). Unresolved disputes create disruptions to the work in progress and drop productivity (Malak et al., 2002; Ren, 2002) and long-time dragged adversarial nature dispute resolution process will incur high cost, damage harmonious relationship between project participants (Ren, 2002). Thus both parties and construction industry suffers from disputes (Ramus et al., 2007).

Although it has many drawbacks, creating disputes over unsettled claims are common in construction industry (Ren, 2002). Therefore people seek more flexible methods to resolve their disputes which are alternative to litigation. ADR methods such as negotiation, mediation, conciliation, med-arb, expert determination,

adjudication and arbitration have become well-known to construction industry (Murdoch & Hughes, 2008).

### **3.5. Negotiation as an ADR Mechanism**

Simply negotiation is a “problem-solving process in which two or more people voluntarily discuss their differences and attempt to reach a shared decision on their common concerns” (Shapiro, n.d.). Among various ADR mechanisms used negotiation is identified as the most suitable (De Zylva, 2007) and the most preferred (Jayasena & Kavinda, 2012) mechanism to resolve construction disputes between the employer and the contractor. De Zylva (2007) stated that methods of dispute resolution other than negotiation have higher possibility of creating unpalatable side effects. Further Jayasena and Kavinda (2012) identified that many favourable attributes come together with negotiation such as party autonomy, confidentiality, flexibility, informality, speed to obtain and preservation of business relationship which makes it most preferred among parties. Therefore disputes always negotiated first before other methods are considered (Cheung et al., 2006).

FIDIC (1999) and FIDIC (2006) standard forms of contracts give provisions for amicable settlement within the designed three tiered dispute resolution process. In Sub-Clause 20.5 [*Amicable Settlement*] of general conditions of contract amicable settlement is incorporated in between adjudication and arbitration which states,

“Where notice of dissatisfaction has been given under Sub-Clause 20.4 above, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration”.

Further United Nations (1994) pointed out in the article 30 [*Settlement*] of UNCITRAL model law that,

“(1) If, during arbitral proceedings, the parties settle the dispute, the arbitral tribunal shall terminate the proceedings and, if requested by the

parties and not objected to by the arbitral tribunal, record the settlement in the form of an arbitral award on agreed terms”.

Thus, UNCITRAL model law has allowed the parties to settle the dispute amicably even after the arbitration process commencement and further facilitates it by allowing record the settlement in the form of an arbitral award on agreed terms.

Furthermore, Sri Lanka arbitration act no 11 of 1995, Section 14, encourages amicable settlement even after commencement of arbitration proceedings.

Sub Section 14 (1) states that,

“It shall not be incompatible with arbitration proceedings for an arbitral tribunal to encourage settlement of the dispute and, with the agreement of the parties, the arbitral tribunal may use mediation, conciliation or any other procedure at any time during the arbitral proceedings to encourage settlement”.

Sub Section 14 (2) has given opportunity to incorporate legal touch to the amicable settlement.

“If, during arbitral proceedings the parties settle the dispute, the arbitral tribunal shall if requested by the parties, record the settlement in the form of an arbitral award on agreed terms”.

Amicable settlement can be any non-adversarial ADR mechanism such as negotiation, mediation or conciliation which parties willingly accept the settlement. Negotiation is simplest form of dispute resolution since the settlement can be achieved by the disputed parties without intervention of a third party (Marzouk & Moamen, 2007).

### **3.6. Characteristics of Claim Negotiation**

Construction dispute negotiations are different to other business negotiations due to some unique features inherited by construction industry (Ren et al., 2011). Therefore there are some barriers in adopting steps of successful negotiation in respect of

claims negotiation. These special characteristics are synthesised and documented in this section.

### **3.6.1. Negotiators**

Ren (2002) stated that the employer does not involve directly to negotiations in most of the cases. However it is identified that involvement of employer is important in claims negotiation (Ren et al., 2011; Ren, 2002) because participation of the consultant as an agent of the employer makes negotiation weak in many cases as identified by Ren et al. (2011). Reason is that especially when claims are arising out of his own mistakes the consultant tends to discourage such claims (Ren et al., 2011; Ren, 2002).

Further selecting same group of people who leads to disputes is a common mistake done when forming claim negotiation teams (Ren et al., 2011). For the reason that, when negotiation starts with same group of people they see it with prejudged mind set. Further, if negative relationships had been build up between each other makes it difficult to achieve any progress (Ren et al., 2011).

### **3.6.2. Complexity**

Since construction claims are complex, most of the time both parties “truly believe that they hold the truth and the opponent’s requests are unreasonable” (Ren et al., 2011, p.125). Otherwise it can be either one party or both exaggerate the opening demand by misrepresenting their contractual and/or legal positions (Pickavance, 2005).

Thus, most of time negotiation starts merely with intuition or personal judgments or ego which makes parties lock in their positions. Therefore, not like other business negotiation it is very difficult to find ZOPA in claims negotiation (Ren et al., 2011).

### **3.6.3. Contract Governance**

Construction projects are generally regulated by very sophisticatedly prepared conditions of contract that defines rights and obligations of the parties. Thus construction dispute negotiation is highly influenced by the governance contract (Cheung et al., 2008). Ren et al. (2011) state that generally in respect of construction claims it is not a negotiation about “how much,” but about “whether parties are entitled for it based on the contractual provisions.”

Therefore claims negotiation requires high level of understanding of each claim items. Securitize contract documents, contractual provisions related to claim events that lead to dispute, availability of contemporary records and correspondences made should evaluate thoroughly (Ren et al., 2011). That is position based negotiation according to the contractual provisions in the contract made between parties.

### **3.6.4. Bounded Self-Interested Relationship**

Once negotiation fails, disputes have to be resolved by other means of dispute resolution mechanism as agreed (Chow, Cheung & Yiu, 2011). Generally construction contracts contain two or three tiered dispute resolution mechanism. FIDIC (1999) and FIDIC (2006) which are commonly used in major road projects have three tiered dispute resolution mechanism. That is dispute adjudication board, amicable settlement and arbitration. Therefore, like in any business negotiation, no one can easily walk away from claims negotiation unless they are ready to step in to next dispute resolution stage (Ren, 2002). By walking away from negotiation table, parties may get trapped in lengthy and costly actions (Chow et al., 2011) such as arbitration.

Initiation costs of these adversarial processes are significant since those include cost of institute or administering, venue and adjudicators or arbitrators. Further it requires outside expertise such as consultants and expert witnesses. If the arbitration



proceedings dragged for several months, cost of arbitration would increase even beyond litigation cost (Amarasooriya & Abeynayake, 2011).

Further taking time in achieving settlement in arbitration is significantly high (Amarasooriya & Abeynayake, 2011; Kanag-Isvaran, 2007). Time value of money is important to parties due to the characteristics of the construction (Yuan & Ma, 2012). If claims are settled faster and possibility of taking money earlier will highly be benefited since it helps to keep positive cash flow and continue work progress.

Parties' control over decision is highly limited by stepping in to adversarial processes which are merely concerned on position base settlements. Therefore "parties must consider degree which they will lose decision-making authority to a third party" (Marzouk & Moamen, 2007, p.135). Further arbitration act 1995 of Sri Lanka does not recognise different natures of disputes. Therefore though construction disputes inherent different characteristics, those are not considered by the arbitrators in Sri Lanka. Further there are a few numbers of technical qualified arbitrators available in Sri Lanka (Amarasooriya & Abeynayake, 2011). Therefore, reliability of arbitration is not very high in respect of construction disputes.

Further to determine bottom line of each party, it should consider opportunities and threats which can come from external factors such as relationship, opportunity of getting next project, cost of next dispute resolution mechanism in case of failing negotiation, etc. Construction is a relationship based industry, which makes parties tend to maintain or strengthen their relationship with each other. Generally contractors believe that the claim history will have great impact on evaluation of their suitability for the next projects (Thomas, 2001). Thus parties have to assess advantages and disadvantages of each choice in detail in determining bottom line of negotiation (Ren, 2002; Mahmoodi, 2012). Accordingly claim negotiation has interest based part in it.

### **3.7. Summary**

Negotiation is identified as the most suitable ADR mechanism for achieve settlement to construction disputes. Further negotiation is the most preferred ADR mechanism selected by the parties. However it is experienced that parties are failing to reach win-win settlements through negotiations. Although many researches and authors write on how to carryout negotiations successfully those concepts are hardly adopted in claims based dispute negotiations.

Construction dispute negotiations are different to other business negotiations due to some unique features inherited by construction industry. Parties shall give more attention to forming negotiation team by selecting negotiators to represent them. Prejudged minds, negative relationships between parties, makes difficult to achieve successful outcome from negotiation.

Generally construction projects are regulated by very sophisticatedly prepared conditions of contract and claims negotiation based on contractual entitlements. In construction dispute negotiations it is very difficult to find ZOPA. Further no one can easily walk away from claims negotiation unless they are ready to step in to next dispute resolution stage. Furthermore external factors such as relationship, opportunity of getting next project, cost of next dispute resolution mechanism have higher impact on negotiation process.

The current knowledge regarding negotiation concepts and characteristics of construction claim based disputes not yet merged. Hence, it is essential requirement to develop a framework to facilitate achieving win-win solution through negotiation for claims based disputes.

## **4. RESEARCH METHODOLOGY**

The intention of chapter four is to form the methodological framework which is used to achieve the aim of the research; that is to develop a conceptual framework for claims based dispute negotiation to achieve a win-win outcome. The discussion of chapter four continues with describing the research process that is the way the research flows. Case study strategy is discussed under research design with justification for selection. Further it is explained data collection and data analysis process carried out in this study in respect of answering research question.

### **4.1. Research Philosophy**

Research philosophy adopted in a research gives “important assumptions about the way which the researcher views the world and it will underpin the research strategy and research methods chosen” for the study (Saunders, Lewis & Thornhill, 2009; p.108).

The research was aimed to develop a conceptual framework to achieve win-win outcome from claims based dispute negotiations which is specialized with characteristics of construction industry. In order to achieve the aim, two succeeded negotiations were examined. This explained the theoretical framework identified in current literature and explore new paradigm which is particular to construction industry through understanding of the situation. Thus research is combination of explanatory study and exploratory study. Accordingly this research aims to extend a theory.

Since the conceptual framework which intended to be developed based on findings of two selected cases and views of professionals who participated in those negotiations, the research was focused on subjective data. Thus knowledge is socially constructed, subjective and has possibility to change according to sample used. Further constitution of this knowledge is based upon the reality behind few real life

situations. Thus it confirmed that the research philosophy is more towards interpretivism (Saunders et al., 2009).

#### **4.2. Research Approach**

This research starts with a testing theory, which is explaining applicability of theoretical framework to achieve successful outcome in a claim based dispute negotiation in construction industry. Then research follows forward and extends the theory through exploring how to address special characteristics in claims based dispute negotiations. Thus research approach starts with deductive approach and ends with inductive approach.

#### **4.3. Research Strategy**

“The choice of research strategy will be guided by research question, objectives, the extent of existing knowledge, the available time and other resources” (Saunders et al., 2009; p.141). Saunders et al. (2009) further stated that, it will “subsequently inform choices of collection techniques and analysis procedures” which is to be adopted in the research project (p.136).

The strategies used generally in research studies are “experiment, survey, case study, action research, grounded theory, ethnography and archival research” (Saunders et al., 2009, p.141). According to Saunders et al., (2009) research strategy often used for interpretivism research philosophy impels is case study.

Case study is a strategy has ability to conduct an in-depth investigation of a particular case within its real life context to answer a ‘how’ or ‘why’ question (Yin, 2004). Further Zainal (2007) explained that the detailed qualitative descriptions which are generally formed in case studies are not limited “to explore or describe a real life environment, but also help to explain the complexities of real life situations

which may not be captured through experimental or survey research” (p.4). Accordingly in this research case study research strategy is used.

#### **4.4. Research Technique**

Data collection process and data analysis process can be discussed under research technique. In this research study technique adopted discussed as follows.

##### **4.4.1. Sampling**

The study is not focused to generalise sample data to whole population. However it is to study a specific situation in-depth to understand the reality behind it. Therefore, qualitative data collected based on purposive or judgemental sampling using critical cases which matches with the scope defined in section 1.6.

When working with case study research strategy particularly with informative small number of samples selected enable to answer research question and to meet objectives of the study (Saunders et al., 2009). Succeeded negotiation used in claim based dispute resolution is not a unique incident or a representative case for typical cases. Therefore in phenomena like this single-case selection cannot be applied. Hence multiple-case study should be conducted (Yin, 2004). Further, Saunders et al., (2009) stated that a multiple-case study can create an overall explanation that suits each individual case, even though the details of cases vary.

For a claim based dispute negotiation, settlement can be reached through two different approaches that is position base negotiation and interest base negotiation. Negotiations of case A was flow entirely position based and final settlement was based on position of the parties according to contractual provisions. In case B, negotiations move forward based on contractual provisions which is position based, however the parties’ reaches to the final settlement considering real interests behind

the issue. Thus, cases A and B were selected in respect of cover both possible approaches in reaching settlement through negotiation.

#### **4.4.2. Data collection**

It was important to first collect the information that already exists on written material, such as contract documents, claims submitted, evaluation reports, contractual correspondence and meeting minutes. This helped to gain background information about the selected case and reduced the amount of new, primary information collection through interviews. Furthermore the information collected helped to develop questions to be answered through interviews.

Altogether six numbers of semi-structured interviews were conducted, which are the main source of primary data. The interviewees consisted of negotiators participated from key participants of the negotiation teams who represented the contractor, the employer and the consultant. When selecting interviewees especially concerned whether they have participated actively and continuously in negotiation.

All interviewees selected were both academically and professionally qualified professionals. Further all of them have more than 15 years' experience in the field of construction and experts in their subject area.

For both case A and case B, expert who prepared claim documentation was involved in every negotiation session was selected as a representative from the contractor. To represent the employer for case A and B, top managerial professionals was choose since they were the most responsible among their teams and had participated in every negotiation sessions. Further, residence engineer from the both consultant teams who were responsible in evaluation and quantification of claim events on behalf of the employer was selected.

The semi-structured interview guidelines were prepared before and sent to the interviewees in advance since it helped them to be prepared with the responses. During interview briefly explain theoretical concepts as an informal conversation to improve the flexibility of the interview and enable gather relevant data with more accuracy. Questions asked in different ways to get same answer with the intention of increasing the reliability of the information. Thus using different sources were important in double-checking and verifying information collected. Further, it increases the validity of data.

#### **4.4.3. Data analysis**

The data produced from interviews and document review were qualitative data in respect of how negotiating parties achieved a win-win outcome in selected cases. For qualitative research content analysis is a widely used data analysis technique (Hsieh & Shannon, 2005). Thus content analysis was selected as the basic data analysis technique of this study. Content analysis was used to summarise raw data in to categories or themes and capture important findings from transcribed raw data to present reliable interpretations (Zhang & Wildemuth, 2007). The gathered data was analysed with help of NVivo software version 10 developed by Qualitative Solutions and Research Ltd.

Pattern matching is a comparison between the empirical findings of the content analysis with the existing literature findings carry out. Pattern matching is a key technique used in testing theory (Saunders et al., 2009; Johnson, 1997). The similarities between theory and the case study findings explain applicability of theoretical framework to achieve successful outcome in a claim based dispute negotiation in construction industry. The differences explore and extend the theory to suit the construction industry.

When the researcher “attains new knowledge by integrating new information with existing knowledge structures”, through mapping it shows how concepts and their

relationships integrated (Dixon & Lammi, 2004; p.3). Therefore cognitive map used as a display technique to visualize accumulation of knowledge gathered through the research findings. This contributing to an increased understanding and improve recall and learning of information (Dixon & Lammi, 2004).

#### **4.5. Summary**

The chapter four discussed the methodology in detail which the research carried out. Case study research strategy was selected based on the established research philosophy, while the qualitative data collected using two techniques that is document review and semi-structured interviews. The data produced was analysed through content analysis, pattern matching and cognitive mapping technique. Thus, the methodology resulted in achieving the aim of this research.



## **5. DATA ANALYSIS AND RESEARCH FINDINGS**

Two foreign funded road projects were selected as case studies in where claim based disputes were successfully resolved through negotiation. Chapter five is documented with the intention of explaining the research findings of the document review and data collected via semi-structured interviews. Primary data was collected through interviews and secondary data was collected through document review such as contract documents, claims submitted, evaluation reports, contractual correspondence and minutes of meetings.

### **5.1. Case A**

The first case selected is briefly explained under this section. The explanation consists of project details, claim history of the project, details of the dispute which was settled through negotiation, negotiators, details related to each negotiation session and final settlement made between the Parties.

#### **5.1.1. Project details**

Project	: Rehabilitation and upgrading class A road
Employer	: State sector authority
Contractor	: Local (ICTAD grading C1)
Engineer	: International and local joint venture
General Conditions of Contract	: FIDIC MDB Harmonised edition 2006
Accepted Contract Amount	: SLR 1,090 million
Time for Completion	: 450 days

#### **5.1.2. Claim history**

Claim no 01 and 02 were submitted by the Contractor to claim costs incurred due to acceleration instructed by the Engineer. Further claim no 03 was submitted by the

Contractor to claim damages due to changes in legislation which caused an increase in fuel price within the contract period. However all three claims were rejected by the Engineer. The Contractor gave-up his three cost claims without refereeing to dispute resolution mechanism as agreed in the Contract.

### **5.1.3. Claim details of Case A**

Claim no 04 which was a request of 130 days extension of Time for Completion was submitted by the Contractor on October 2012. Determination of rejecting the claim was sent by the Engineer without proper evaluation. On November 2012 claim no 05, 459 million valued cost claim, which consisted of associated cost of additional scope and the cost of prolongation for 130 days was submitted by the Contractor. Same as before the Engineer's determination of rejecting the claim was received to the Contractor. Pursuant to Conditions of Contract notice to commence arbitration was sent by the Contractor to the Employer in order to resolve the dispute through arbitration.

### **5.1.4. Negotiations**

Thus dispute was regarding 130 days of extension to Time for Completion and 459 million of cost claimed by the Contractor. Between the Employer and the Contractor negotiations were commenced as invited by the Employer.

Negotiators participated from each parties are as follows;

Representing the Contractor : 5 Numbers (Managing Director, Claim Specialist, General Manager, Project Manager, Quantity Surveyor)

Representing the Employer : 3 Numbers (Project Director, Deputy Project Director, Procurement Specialist)

Representing the Engineer : 3 Numbers (Team Leader, Contract Management Specialist, Resident Engineer)

Negotiation sessions between the parties were conducted as follows.

Session 1: Entitlement to EOT was established by the Contractor and it was accepted by the Employer

Session 2: Agreed to grant 130 days of EOT for delayed part of Work and issued Taking-Over Certificate for the rest of Works. Agreed to pay prolongation cost based on delayed part of Work

Session 3: Established requirement of the cost claim and legitimacy of the claim. The Employer agreed

Session 4: Agreed on boundaries of claim events and decided to let the Engineer to carryout calculations and quantify cost to be paid

Session 5: Finalised quantification of the cost claim

#### **5.1.5. Settlement**

It was agreed to settle for 130 days of extension of Time for Completion and 212 million rupees for cost claim by the Parties.

### **5.2. Case B**

Second case selected is explained in this section and it is consists of project details, details of the dispute, negotiators, the way each negotiation session carried out and final settlement made between the Parties.

#### **5.2.1. Project details**

Project	: Improvements for provincial roads
Employer	: State council
Contractor	: Local (ICTAD grading C1)
Engineer	: International and local joint venture
General Conditions of Contract	: FIDIC MDB Harmonised edition 2006

Accepted Contract Amount : SLR 370 million  
 Time for Completion : 547 days

### 5.2.2. Claim details of Case B

Five claims were submitted by the Contractor and table 5.1 illustrates details of claims.

Table 5.1: Claim summary of case B

Claim No	Submission	Claim Events	EOT (days)	Cost (Million)
01	October 2011	01: Non-availability of materials	12	5.7
02	December 2011	01: Delayed drawings 02: Delayed Site possession 03, 04 and 05: Variations	178	57.0
03	February 2012	Rate revision due to quantity reduction		72.8
04	February 2012	Exceptional adverse weather	34	
05	January 2013	01, 02, 03 and 04: Variations	104	37.7
		Unsettled Variations		26.4

Until the Contractor submitted claim no 04 on February 2012, the Engineer was at claim evaluation process and the Contractor was awaiting the Engineer's determination in regarding claims 01, 02 and 03.

On May 2012 the Engineer granted 32 days extension of Time for Completion for the claim no 04 submitted by the Contractor and it was agreed by all the Parties.

### 5.2.3. Negotiations

On May 2012 based on claim no 01, 02 and 03, negotiations were commenced as invited by the Employer.

Negotiators participated from each parties are as follows;

Representing the Contractor : 6 Numbers (Chief Executive Officer, Contract Specialist, Project Manager, Chief Operating Officer, Site Engineer, Quantity Surveyor)

Representing the Employer : 4 Numbers (Project Director, Deputy Project Director, National Project Director, Office Engineer)

Representing the Engineer : 3 Numbers (Team Leader, Resident Engineer, Assistant Resident Engineer)

Dispute was in regarding with 190 days of extension to Time for Completion and 135.5 million of cost claimed by the Contractor. Between the Employer and the Contractor negotiation sessions were conducted as follows.

Session 1: It was decided by the Contractor to withdraw the claim no 01 in good faith of the project even though they have an entitlement according to the Conditions of Contract.

Session 2: Agreed to grant 32 days EOT for claim event 4 of claim no 2

Session 3: Agreed to grant 79 days EOT for claim event 2 of claim no 2

It is agreed to pay 14.8 million rupees as non-recovered overhead and profit for above 111 days by the Employer.

Session 4: In respect of claim no 2, the Contractor's entitlement to following items were agreed by the Employer in principle;

Idling machinery cost

Extended preliminaries

Extended price escalation

Cost of non-release of retention

Further it was agreed to calculate idling machinery cost based on depreciation rate and the maintenance cost only. Further it was agreed to pay based on actual cost for extended preliminaries.

Session 5: Regarding claim no 3 the Contractor's entitlement to rate revision for quantities which exceeded the agreed bills of quantities was agreed in principle by the Employer. Further clarifications requested on entitlement to rate revision for items which quantities reduced than the agreed bills of quantities.

Session 6: Incurred cost due to reduction of quantities were explained and convinced to the Employer by the Contractor.

Until January 2013 negotiations were carried out successfully and 111 days EOT was granted but no any additional payment was made even though the Employer agreed to the Contractor's entitlement for some claim events.

The claim no 05 was submitted by the Contractor on January 2013. After submitting claim no 05 the Engineer's determination was received to the Contractor rejecting all cost claims made up to date. Pursuant to Conditions of Contract a notice was sent by the Contractor declaring their intention to commence arbitration in respect of 104 days of EOT in claim no 05 and 193.9 million of cost claimed in claim no 02, 03, 05 and failure in finalising cost of Variations. The Contractor was invited by the Employer to a meeting and it was agreed to continue negotiations to settle the dispute amicably between the Parties.

Therefore negotiation sessions continued.

Session 7: Agreed to grant 104 days EOT agreed up to 13 April 2013

Session 8: Agreed for the Contractor's entitlement in principle to following claim events by the Employer.

Non-recovered overhead and profit

Cost of non-release of retention

Idling machinery cost

Rate revision for quantities reduction

Session 9: Agreed to the Contractor's entitlement for the Variation 02 and 04 of claim no 05

Session 10: The Contractor agreed that settlement would be within 56 to 58 million and payments shall be made before end of April 2013

The Parties agreed

#### **5.2.4. Settlement**

Extension of Time for Completion was granted up to 13 April 2013. Total cost certified was 96.5 million rupees. 40.5 million rupees were certified for extended preliminaries and extended price escalation for period of time extension was granted. Further 51.9 million rupees was certified considering the Contractor's entitlement for the followings; non-recovered overhead and profit and cost of non-release of retention, idling machinery cost, rate revision for quantities reduction and Variation 02 and 04 of claim no 05. Furthermore 4.1 million rupees was granted declaring as concession for amicable settlement.

#### **5.3. Content Analysis**

Content analysis includes both "within case analysis" and "cross case analysis". Within case analysis means analysing response made by participants representing each party. Further comparing similarities and differences of the two cases selected is called cross case analysis. Using both of these analysis methods, it is intended to identify applicability of adopting identified steps in achieving successful negotiation in existing literature for claims based disputes in foreign funded road development projects.

Interviewees were asked to present how they have succeeded negotiation and their comments on each step in negotiation process. The coding structure related to negotiation process is illustrated in Figure 5.1, and it is based on NVivo qualitative

data analysis software. Content analysis of case study findings carries according to given headings and sub-headings of Figure 5.1.

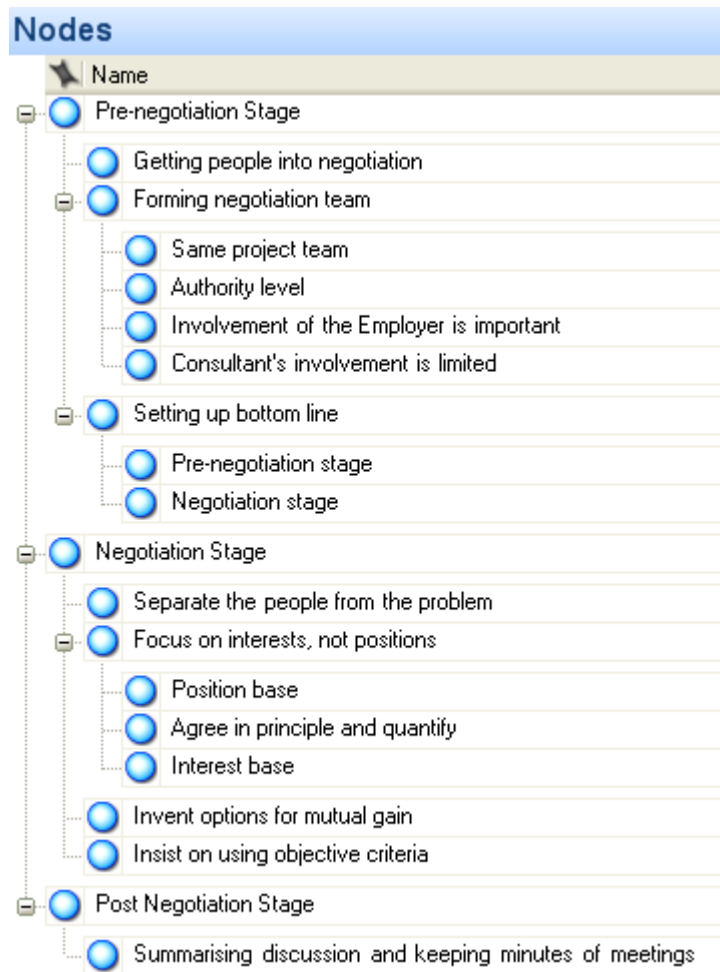


Figure 5.1: Coding structure of negotiation process

### 5.3.1. Step 1: Getting people in to negotiation

In both cases representative of Contractor stated that, as a contractor their preference is to settle disputes by negotiation rather than dragging in to arbitration. Further it is explained that showing their intention to arbitrate to resolve the dispute was used to getting the Employer in to negotiation table. The representative of Contractor in case A stated that “*we sent arbitration notice to the Employer. As a result of that the Employer invited us to negotiate*”. Further in case B, the representative of Contractor mentioned that, “*we tried moving to arbitration. Also we thought that would bring*



*the Employer in to negotiation table again*” This is confirmed by review of documents DA11, DA12, DB19 and DB20.

In both cases the Employers had identified the necessity of resolving the dispute through negotiation due to some possible drawbacks in next step of dispute resolution mechanism. It was pointed out by the representative of Employer in case A that, *“the top management was aware on delay and cost can be incurred if we drag a dispute in to arbitration”*. Further it was stated by the Employer in case B that they had no intention to interrupt work progress and funding agency strictly advised to resolve the issue amicably without spending time and cost on arbitration. Furthermore in both cases it was confirmed by the Engineer that both Contractor and Employer preferred to negotiate considering delay and cost involved with the arbitration.

Accordingly it was established that both Parties had real interest to resolve their dispute through negotiation which is an identified requisite to achieve successful outcome through negotiation. Further it was established that, unlike other dispute negotiations getting parties to negotiation table is not difficult in construction claims negotiation. The Parties’ awareness regarding drawbacks involved with arbitration procedure creates real interest to resolve their disputes through negotiation.

### **5.3.2. Step 2: Forming negotiation team**

The coding structure in Figure 5.2 shown below is the basis to the analysis data collected with regard to “forming negotiation team”.



Figure 5.2: Coding structure of step 2: forming negotiation team

- **Same project team**

The theory which suggests avoid selecting the same group of people who lead to dispute, was disagreed by all the professionals interviewed. In both cases, it was stated by the Contractor representatives that, in a construction dispute negotiation, it is impossible to avoid people who know about the project.

The above was agreed by both the Employer representatives. It was added by the Employer representative in case A that, *“we were in the project from the beginning and it was helpful to make a decision”*. It was further elaborated by the representative of the Employer in case B as that, *“documents can be different from actual scenario. Then someone should be there to identify that”*.

A special reason for his disagreement with the theory was highlighted by the Engineer in case B as *“in this project we conduct negotiation meetings for about a year. So we have to go ahead with same people even we like or not”*.

Participation of same project team is confirmed by document review meeting minutes of negotiation sessions that is DA13 to DA17 and DB9 to DB18.

Accordingly selecting same group of people which has been identified as a reason to fail negotiations due to fixed or prejudged minds, negative relationships or attitudes, was rejected by all parties and agreed that using same project team who are well aware about the project cannot be avoided and in fact essential to achieve successful outcome.

- **Authority level**

The Contractor representatives in both cases stated that they have incorporated a top manager of the organisation who has authority to take decisions in to negotiation team. It was agreed by them that it helped to take decisions at the negotiation table.

However the Employer's authority level was different compared to the Contractors. It was stated by the Employer's representative in case A that "*since it is a state sector organisation we had to follow some procedures*". Further his explanation was that they had to "*take approval from the Technical Evaluating Committee*". In both cases it was emphasised by the Employer's representatives that the level of authority would not be a matter if the decisions they took are justifiable with reasons.

Accordingly having decision making authority is vital to achieve successful outcome in a claims based dispute negotiation from a Contractor's point of view. Further it explains Employer's level of decision making authority is limited to justifiable decisions. Although granted authority is limited they have achieved success in both the cases.

- **Involvement of the Employer**

In both cases Employer's representatives participated directly in negotiation. In case A until the Contractor sent a notice to arbitrate the Employer was not involved with that. It was explained by the Employer that "*up to that point the Contractor was dealing with the Engineer and when only a dispute created the Employer have authority to deal with that overruling the Engineer*". However in case B even before the Contractor send his intention to arbitrate the Employer's representatives involved in negotiation sessions with the Engineer together to settle the claim.

In both cases it was agreed by the Employer's and the Contractor's representatives that the involvement of the Employer is necessary to achieve success in a negotiation. Agreeing on the Contractor's entitlement in principle was done by the Employer. The opinion of both the Employer's and the Contractor's representatives was that direct participation of the Employer helped to limit the Engineer's involvement to quantification of claim based on agreed boundaries. This was confirmed by review of documents DA13 to DA17 and DB9 to DB18.

Reasons behind importance of the Employer's direct involvement were explained by the Employer's representative in case A as "*cost of arbitration is not an Engineer's problem but at the end it will be a cost to the Employer*". In respect of case B this was described by the Contractor's representative as, "*we were the best progressing contractor that from all other packages*" and the Employer and funding agency "*don't want to drop progress of work*".

Thus both the cases elaborate that the direct involvement of the Employer is a key factor behind success in claims based dispute negotiation.

- **Consultant's involvement is limited**

It was agreed by all party representatives that the consultant's or the Engineer's involvement should be limited. In both cases the claim quantification was done with the involvement of the Engineer. However in case A, it was stated by the Contractor's representative that "*the Engineer was not a silent character, he was able to raise questions and explain his ideas*" at the negotiation.

In case A, an explanation was given by the Contractor's representative that, "*due to some errors made at the initial stage of project, scope was not accurate. But this was not the Engineer's error*". This is confirmed by document review DA5 and DA6. However it was further elaborated that, "*due to financial issues faced by the Contractor with scope change, performance dropped. Because of that the Engineer was rejecting the Contractor's claims continuously. The Engineer was predetermined and did not look at it in a fair manner*". This was supported by the Employer in case A by saying "*since the Contractor's financial stage was critical at that time the Engineer might have thought that the Contractor is trying to earn some amount to secure his business*". This is confirmed by document review DA10 and DA13. Thus case A highlighted that due to fixed or prejudged minds, negative relationships or attitudes limiting the Engineer's involvement was helpful to achieve success in the negotiation.

However in case B, it was agreed by the Employer representative that, when claims are arising out of his own mistakes the Engineer tends to discourage such claims and it was further mentioned that “*that’s why we take control of negotiation*”. The explanation of the Contractor’s representative in case B was that, “*the Employer decided that the Engineer is acting unfair and limited their involvement in the negotiation*”. Although parties directly have not blamed the Engineer, in the document review DB2, DB3, DB4 and DB6 shows the claim events were occurred due to poor project management and contract administration of the Engineer. Further documents DB7 and DB8 shows that the Engineer was unable to carry out a fair determination. Thus case B shows that the consultant’s involvement limited due to his tendency in discouraging claims.

Accordingly it was illustrated in both cases that limiting the consultant’s involvement to negotiation is a vital step taken by the Employer in respect of achieving settlement successfully.

### 5.3.3. Step 3: Setting up bottom line

Next concern was on the analysis of importance of setting up bottom lines by each Party. Their views mainly focused on the following areas listed in coding structure in Figure 5.3.



Figure 5.3: Coding structure of step 3: setting up bottom line

- **Pre-negotiation stage**

In both the cases it was stated by the Contractor representatives that they had decided their bottom line before start negotiating and that was decided on loss they had faced.

The explanation of the Contractor representative in case A was that they have considered strengths of claim. It was stated that, “*scope of work changed drastically and those changes done continually within project duration. Therefore, even if we go to arbitration we knew we will able have a decision in favour of us*”. Further it was considered that possibility of delaying payment as a threat for the Contractor since the company at a difficult financial stage.

In case B, it was pointed out by the Contractor representative that they have considered their strengths, opportunities and threats. Further it was explained that the strengths of negotiation as “*we know contractual basis of our claim is high*” and “*we had given required notices, records and had clear entitlement*”. Furthermore opportunities were stated as follows “*we know that from all other packages we were the best progressing contractor*” and “*we were at good bargaining position*”. However it was concerned that on possible threats adjoining with the dispute which explained as they have to keep good relationship with the Employer and maintain reputation of the company.

The Contractor representatives in both cases had no idea of the SWOT analysis which they had already used to determine the bottom line. However this concept was unknowingly practiced in both cases at the pre-negotiation stage. Thus both cases identified that the deciding their bottom line is a prerequisite for the Contractor’s to face negotiation successfully.

- **Negotiation stage**

In case A it was agreed by the consultant and the Employer that they had basic idea of claim before sitting in the negotiation table. However it was expressed by the Employer in case A, that their “*bottom line was not fixed*” at the beginning. Further it was accepted by the consultant in case B that “*no such bottom line was fixed before each negotiation meeting*”.

Due to complex nature in construction claims based on explanations made at the negotiation table decisions were taken by the Employer without keeping set bottom line. The situation was explained by the Employer's representative in case A as follows, "*in this claim the Contractor's main argument was not very clear according to Conditions of Contract*". However after the Contractor's explanation it was agreed that the Contractor was entitled to an additional payment although it is not clearly stated in the Contract. This is further confirmed by DA6 and DA15 documents.

In case B it was agreed and stated by the Employer that "*when discussions were going on we decided granting cost for some claim events is possible*". Further it was stated by the Employer's representative in case B "*since negotiations went through whole project, interests of parties changed from time to time. So while negotiation processed maximum amount was decided*".

Thus in both cases the Employer's bottom lines were calculated at the negotiation stage based on details revealed in the negotiation sessions. Thus bottom line was not firmly established at the pre-negotiation stage, but let it to develop with the negotiation process was a key mechanism in addressing complexity in construction claims.

#### **5.3.4. Step 4: Separate the people from the problem**

It was agreed by all party representatives from both cases, to carryout negotiation sessions successfully it shall be free from people problems such as attacking each other without addressing real dispute or getting aggressive.

Although this concept was agreed by the Contractor's representative in case B he explained that "*since negotiations are done considerably long duration, getting aggressive and requirement of keeping relationship both were there*". According to the point he raised case B was not free from people issues and however they direct the negotiation to win-win settlement even with people issues.

Generally all parties agreed that separating people from the problem is required to conduct negotiation successfully.

### 5.3.5. Step 5: Focus on interests, not positions

Analysis with regard to step five is based on the following coding structure in Figure 5.4.

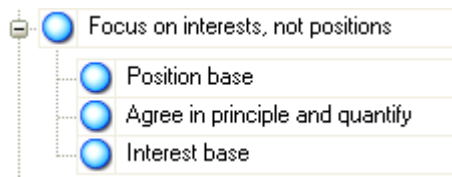


Figure 5.4: Coding structure of step 5: focus on interest, not position

- **Position base**

It was confirmed by all party representatives and documents (DA13 to DA17 and DA18) in case A that, the negotiation was completely focused on the Contractor's entitlement on merits of the claim. It was stated by the Employer representative that their interest to avoid cost and time of arbitration proceedings was not considered in negotiations, but it was considered when selecting negotiation as the dispute resolution mechanism. Thus case A was completely based on the Parties position.

However in case B following findings were confirmed by both party representatives and documentary evidence (DB9 to DB18 and DB21). In case B at the initial stage compromises made by the Contractor based on their interests. However after that the negotiation was carried out based on contractual entitlement of the Parties. At the end of negotiation a concession for amicable settlement was made by the Employer. Although at the beginning and at the end negotiation was focused on their interests major component of negotiation was position based. Thus case B was based on mixed approach of both position based and interest based negotiation.



Accordingly it is identified that claims based dispute negotiation shall not fully focus on interest. It should be a mixed approach of both position and interest of the Parties.

- **Agree in principle and quantify**

All representatives and meeting minutes DA13 to DA17 of case A showed that they had breakdown negotiation to several steps. Since claim consisted of two major components; time claim and cost claim, first it was concentrated on time claim. However in respect of both time and cost, the basis of negotiation was focused on establishing claim entitlement in principle first. Second step was to focus on quantification of the claim.

In case B it was confirmed by both the Contractor and the Employer representatives that they had agreed in principle for contractual entitlement first and it was followed by quantification of extension of time and/or additional payment. This was confirmed by document review DB9 to DB18. This was elaborated by the Contractor's representative in case B as "*first discussed and agreed in principle on Contractor's entitlement*".

Accordingly in both cases it was confirmed through the findings that in order to overcome complexity of construction claims, negotiation has to be broken down in to several steps. Step one was establishing claim entitlement in principle. Focus on claim quantification was step two. This was carried out for time and cost claim events separately. Thus this was identified as a key success factor in achieving win-win out come in claims based dispute negotiation.

- **Interest base**

Regarding case A it was confirmed by all representatives and reviewed documents DA13 to DA17 and DA18, negotiation was completely based on position but not based on interest. However the Contractor's representative explained that the

negotiation was not extended to be interest based since the Parties reached to ZOPA within position based negotiation. Further he elaborated that since the Employer had preference to settle dispute via negotiation without dragging in to arbitration, if the Parties unable to reach ZOPA within position based negotiation there were possibility to negotiate on the Parties interests. This was confirmed by the Employer representative saying *“at the end of the negotiation it was clear that the Contractor entitled for claim. Therefore we were preferred settling this within ourselves”*. Further he accepted that if the Contractor carries on bargaining, *“there was high possibility to make some compromises to reach an agreement”*.

However case B was based on mixed mechanism of position base and interest base. In case B both Parties did compromises based on their interests. It was explained by the Contractor’s representative in case B that they had given-up their first cost claim at the beginning in good faith of the project. Further it was pointed out to achieve the settlement a concession was made by the Employer which was based on interest that is to avoid arbitration. This was confirmed by document review DB21 which explained *“if the dispute had proceeded to arbitration, it is likely that further compensation in this form would have been granted”*. Further it is pointed out *“costs payable by the Employer if arbitration were to be followed would be the fees and other charges arising from the hearings 3 to 8 million or more”*. Accordingly unless the Parties focus on their interest in case B would not have been achieve settlement via negotiation successfully.

Thus intention to consider both position and interest in order to reach ZOPA is required to achieve settlement successfully.

### **5.3.6. Step 6: Invent options for mutual gain**

Although both case A and case B were succeeded, in both cases there were no any options invented for mutual gain. In case B parties have not expressed any interest in respect of the concept.

The representative of Contractor in case A stated that that claim negotiation is a search answers process for numerous different questions, it is not searching a single answer. Both the Contractor and Employer explained that as a representative of government organisation inventing options beyond the contract is impossible for the Employer.

Accordingly both cases succeeded negotiations without inventing options for mutual gains.

#### **5.3.7. Step 7: Insist on using objective criteria**

In both cases negotiations were based on objective criteria. In case A, it was accepted by both the Contractor and the Engineer that the negotiations were based on Conditions of Contract and decided cases. This was confirmed by the DA13 to DA17 and DA18 document review. Further in case B, it was agreed by all three party representatives and it was shown in DB9 to DB18 and DB21 of document review that, the basis of negotiation was Conditions of Contract.

Further it is agreed by all the parties, the negotiation governed by the contract is helpful to resolve issues in a professional manner. Further it is established by the Employer of case B, as a representative of state sector organisation, decisions made based on Conditions of Contract is clear and can be proven with reasons.

Accordingly, claims based dispute negotiations is based on objective criteria from the beginning to end.

#### **5.3.8. Step 8: Summarising discussion and keeping minutes of meetings**

It was accepted by all the representatives of parties in both cases that, keeping records; meeting minutes, in each and every session is important. Further it is

identified as an essential practice. It was identified in document review (DA13 to DA17) of case A that keeping meeting minutes was done in a proper way.

However in case B although this concept was agreed by the Employer's and the Engineer's representatives, both documentary review (DB9 to DB18) and the Contractor's comment showed it was not properly practiced. It was pointed out by the Contractor representative that *"after every negotiation session as the Contractor, we prepare summary of negotiation which includes agreements made between parties and send to both the Employer and the Engineer"*. Further it was explained that this was done *"to avoid repetition and wasting time"*

Accordingly it is identified that summarising of discussions and keeping minutes of meetings at end of each session is a key factor behind the success of claims based dispute negotiation.

#### **5.4. Pattern Matching**

This section of the chapter is focussed for comparison with the literature findings against to case study findings of claim based dispute negotiation process in relation to the construction industry.

In pattern matching predicting a pattern of outcomes based on existing theory to explain what is expect to be found. Therefore it is required to develop a conceptual framework which is based on existing theory, and subsequently test the adequacy of the framework as a mean to explain findings (Saunders et al., 2009).

##### **5.4.1. Step 1: Getting people in to negotiation**

According to literature findings that are emphasized in Section 2.4.1 in order to achieve successful outcome through negotiation, parties' real interest to resolve their dispute through negotiation is important. Further it is identified that getting people in

to negotiation table is the hardest in case of a dispute negotiation. However in Section 3.6.4 in literature review it was emphasised that parties cannot easily walk away from claims negotiation unless they are ready to step in to next dispute resolution step stage which is time consuming and costly.

According to the research findings in both cases when the contractor decided to seek a fair determination through arbitration, it was decided by the employer to come in to negotiation table. In case B funding agency as a stakeholder promotes negotiation settlement. Taking parties to negotiation table in construction claims negotiation is not difficult comparing to the other dispute negotiations. Parties' awareness about cost and time involved with arbitration procedure creates real interest to resolve their dispute through negotiation. Thus the research findings explain the theory.

#### **5.4.2. Step 2: Forming negotiation team**

Existing literature in Section 2.4.2 explained that when forming negotiation team negotiator should be capable in adopting more than one negotiation style, less emotional, easily interacting with other party. Furthermore it was identified that the parties should define their representative's authority level which will be helpful to make successful conclusions to a negotiation. Literature in respect of construction negotiation in Section 3.6.1 emphasised that involvement of employer is important and participation of the consultant as an agent of the employer makes negotiation weak. Further selecting same group of people identified as a reason to fail negotiations due to fixed or prejudged minds, negative relationships or attitudes.

According to research findings in both cases it was accepted that involvement of employer is important. However participation of the consultant as an agent of the employer was not avoided. The duties assigned for the consultant was limited to claim quantification. Further basis of quantification was agreed between the employer and the contractor in the negotiation. Although selecting same group of people is identified as a drawback in literature, it was rejected by findings of two

cases. That is both cases negotiators were selected from same group of professionals involved in the project. By research findings, it was identified that other than selecting negotiators based on their capabilities identified in literature, negotiators should be well aware on the project, claim history, claim events and contractual entitlement according to contract between the parties.

Both theory and research findings agreed that granting necessary level of authority to party representatives is required to make successful conclusions to a negotiation. In both cases a key managerial official was selected as negotiator to represent the contractor. This helped to take decisions at the negotiation table which avoided unnecessary deadlocks. In the employer's point of view they had no such power granted since they are state sector organisations. However it was stated by the participants represented the employer that they are in position to take decisions if it is justifiable with reasons.

#### **5.4.3. Step 3: Setting up bottom lines**

In order to achieve successful outcome through negotiation parties should be prepared and set their bottom line in pre-negotiation stage as explained in literature review under Section 2.4.3. SWOT analysis can be used as a tool to determine the bottom line. However literature findings in Section 3.6.2 showed since construction claims are complex, most of the time both parties truly believe that they hold the truth and the opponent's requests are unreasonable. Or else it can be parties exaggerate the opening demand by misrepresenting their contractual and/or legal positions which make very difficult to find ZOPA in claims negotiation.

According to research findings in both cases it was stated by the contractor that they have initially decided the minimum amount which they can agree and it was decided by the management based on actual loss caused. It was stated by claim consultant in both cases that they were well aware on maximum amount which will be possible to gain from the claim based on strengths and weaknesses of the claim prepared.

However it was explained by the employer that they did not clearly decide their bottom line before starting the negotiation. However based on explanations made and substantiations done to prove the contractor's demands, they had considered possible amount to be paid from time to time in between the negotiation progressing.

Although theory explained that parties should set their bottom line in pre-negotiation stage, due to complex nature of construction claims this is not practical. Other than fixing bottom line in pre-negotiation stage, keeping open-mind and letting it change as negotiation proceed was helpful to understand the other parties' demand and conduct negotiation fairly and reasonably.

#### **5.4.4. Step 4: Separate the people from the problem**

Theory in Section 2.4.4 stated that people easily get emotional and getting things personal which makes negotiation hard. Therefore the negotiators should work together attacking the problem but not each other.

Research findings agreed that separate people from the problem is very important to achieve successful outcome through negotiation. However research findings further identified that since claims negotiations are based on contractual provisions and contemporary records separating people from the problem is easy. Thus the research findings explain the theory.

#### **5.4.5. Step 5: Focus on interests, not positions**

Section 2.4.5 in literature review identified that in order to achieve win-win outcome parties should focus on interests, not on positions.

Research findings in respect of claims based dispute negotiation in construction industry disagree with the general negotiation theory established in literature. Case A was purely settled based on parties' position. However, parties agreed that unless

they were able to reach ZOPA within position based negotiation there was high possibility to consider interest based negotiation. Further research findings clearly explained case B used mixed mechanism of using both position and interest based negotiations in order to achieve settlement. Thus the parties' intention to consider both position and interest in order to reach ZOPA is vital to achieve settlement successfully.

Further it was identified in both the cases when position based negotiation was carried out, they agreed in principle on entitlement and then quantification was based on agreed terms made negotiation successful.

Thus while research findings disagree with theory established it extends the theory by exploring knowledge.

#### **5.4.6. Step 6: Invent options for mutual gain**

According to literature in Section 2.4.6, inventing options for mutual gain is vital to achieve win-win solution for the dispute. However research findings disagree with the theory and it is established that to achieve settlement inventing options is not important. Thus research findings disagree with theory established and explore knowledge.

#### **5.4.7. Step 7: Insist on using objective criteria**

Theory in Section 2.4.7 suggested using objective criteria when parties could not come to a solution by themselves. It further explained that it has possibility to bring fairness, efficiency or scientific merit to the negotiation via using independent, impartial, legitimate and practical objective criteria.

Research findings agreed that negotiation should be based on objective criteria such as contract document, professional standards and decided cases. However research



findings disagree that it is to be used when parties could not come to a solution. Research findings explore that objective criteria shall be used from the beginning of negotiation as a basis for the entitlements.

#### **5.4.8. Step 8: Summarising discussion and keeping minutes of meetings**

Section 2.4.8 theory recommended that keeping minutes of meetings at the end of each negotiation session to avoid unnecessary discussion over and over about same issue is vital.

According to research findings in both cases it was agreed that key fact behind the success of the negotiation is summarising discussion and keeping minutes of meetings. Thus the research findings explain the theory.

#### **5.4.9. Summary**

Pattern matching was carried out for comparison between theory and research findings. The comparison was done for eight steps identified in theoretical framework as key steps to make a successful negotiation. Hence this pattern matching analysis reveals that, how far theory can be explained through research findings and which theory should be extended based on knowledge explored in respect of claims based dispute negotiation in construction industry.

In summary, result of pattern matching between theorized data and observed data of each steps of a successful negotiation is summarized and represented in tabular manner in Table 5.2 as follows.

Table 5.2: Theory verses research findings

Theory	Research Findings	Comments
<b>Step 01: Getting people in to negotiation</b>		
<ul style="list-style-type: none"> <li>▪ Getting people in to negotiation table is the hardest in case of a dispute negotiation. However, in construction disputes parties cannot easily walk away from negotiation unless they are ready to step in to next dispute resolution step stage which is lengthy and costly.</li> <li>▪ In order to achieve successful outcome through negotiation, parties' real interest to resolve their dispute through negotiation is important.</li> </ul>	<ul style="list-style-type: none"> <li>▪ When the contractor decided to seek a fair determination through arbitration, it was decided by the employer to come in to negotiation table. Taking parties to negotiation table is not difficult in respect of construction disputes.</li> <li>▪ Parties' awareness about cost and time involved with arbitration procedure creates real interest to resolve their dispute through negotiation. Parties' real interest to resolve their dispute through negotiation is a key factor behind the success.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain the theory</li> </ul>

Theory	Research Findings	Comments
<b>Step 02: Forming negotiation team</b>		
<p>When forming negotiation team followings are key facts to achieve success;</p> <ul style="list-style-type: none"> <li>▪ Negotiator should be capable in adopting more than one negotiation style, less emotional, easily interact with other party</li> <li>▪ Avoid selecting same group of people who leads to dispute as negotiators</li>   <li>▪ Involvement of employer is important</li> <li>▪ Avoid participation of the consultant as an agent of the employer</li>   <li>▪ Parties should define their representative's authority level</li> </ul>	<p>When forming negotiation team followings are key facts to achieve success;</p> <ul style="list-style-type: none"> <li>▪ Negotiators should be well aware on the project, claim history, claim events and contractual entitlement according to contract between the parties</li> <li>▪ Negotiators selected from same group of professionals involved in the project</li>   <li>▪ Involvement of employer is important</li> <li>▪ Participation of the consultant as an agent of the employer has limited to claim quantification</li>   <li>▪ Parties should define their representative's authority level</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extend the theory</li>   <li>▪ Explain and extend the theory</li>   <li>▪ Explain the theory</li> </ul>

Theory	Research Findings	Comments
<b>Step 03: Setting up bottom lines</b>		
<p>In order to achieve successful outcome through negotiation,</p> <ul style="list-style-type: none"> <li>▪ Parties should be prepared and set their bottom line in pre-negotiation stage. SWOT analysis can be used as a tool to determine bottom line.</li> <li>▪ Since construction claims are complex, it is very difficult to find ZOPA in claims negotiation.</li> </ul>	<p>In order to achieve successful outcome through negotiation,</p> <ul style="list-style-type: none"> <li>▪ In both cases the contractor stated that they had initially decided the minimum amount which they can agree had decided by the management based on actual loss caused.</li> <li>▪ The employer did not clearly decide their bottom line before starting negotiation. They kept an open-mind and let it change as negotiation proceeded. Basis was explanations made and substantiations done to prove the contractor's demands.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Theory does not explain how to address complexity inherited by the claims based disputes</li> </ul> <p>Findings elaborate that setting bottom line in pre-negotiation stage is not a key to address complexity but letting it develop with the negotiation</p> <p>Thus, it extend the theory</p>

Theory	Research Findings	Comments
<b>Step 04: Separate the people from the problem</b>		
<ul style="list-style-type: none"> <li>▪ People easily get emotional and getting things personal.</li> <li>▪ This makes negotiation hard therefore the negotiators should working together attacking the problem but not each other.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Separate people from the problem is very important to achieve successful outcome through negotiation</li> <li>▪ Since claims negotiations are based on contractual provisions and contemporary records separating people from the problem is easy.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain the theory</li> </ul>

Theory	Research Findings	Comments
<b>Step 05: Focus on interests, not positions</b>		
<ul style="list-style-type: none"> <li>▪ Parties should focus on interests, not on positions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Parties should have intention to consider both position and interests.</li> <li>▪ When position based negotiation carried out, agreed in principle on entitlement and then quantify based on agreed terms made negotiation successful.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extend the theory</li> </ul>
<b>Step 06: Invent options for mutual gain</b>		
<ul style="list-style-type: none"> <li>▪ Inventing options for mutual gain is very important</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inventing options beyond the contract is not possible. In order to achieve settlement inventing options is not important</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extend the theory</li> </ul>

Theory	Research Findings	Comments
<b>Step 07: Insist on using objective criteria</b>		
<ul style="list-style-type: none"> <li>▪ Suggest using objective criteria when parties could not come to a solution by themselves</li> </ul>	<ul style="list-style-type: none"> <li>▪ Objective criteria shall be used from the beginning of negotiation as a basis for the entitlements</li> </ul> <p>Examples: contract document, professional standards and decided cases</p>	<ul style="list-style-type: none"> <li>▪ Extend the theory</li> </ul>
<b>Step 08: Summarising discussion and keeping minutes of meetings</b>		
<ul style="list-style-type: none"> <li>▪ Recommended keeping minutes of meetings at the end of each negotiation session</li> </ul>	<ul style="list-style-type: none"> <li>▪ Keeping minutes of meetings at the end of each negotiation session is identified as a key factor behind the success</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explain the theory</li> </ul>

According pattern matching analysis, research findings agree and explain the theory in respect of following steps of negotiation.

Step 01: Getting people in to negotiation

Step 04: Separate the people from the problem

Step 08: Summarising discussion and keeping minutes of meetings

Further in respect of following steps, findings disagree completely with the theory developed on general negotiation principle due to special characteristics in claims based dispute negotiation in construction industry. Findings extend the theory based on knowledge explored regarding following steps.

Step 03: Setting up bottom lines

Step 05: Focus on interests, not positions

Step 06: Invent options for mutual gain

Step 07: Insist on using objective criteria

Regarding the step 02, that is forming negotiation team, findings agree with some points while exploring new theory to others. Thus, in respect of step 02 findings do both explaining and extending the theory.

### **5.5. Cognitive Map for Steps for Successful Claims Negotiation**

While research findings explain existing theory for some extent it further extend the theory to suit in to claims based dispute negotiation due to special characteristics of construction industry. This was illustrated in a cognitive map as follows Figure 5.1.



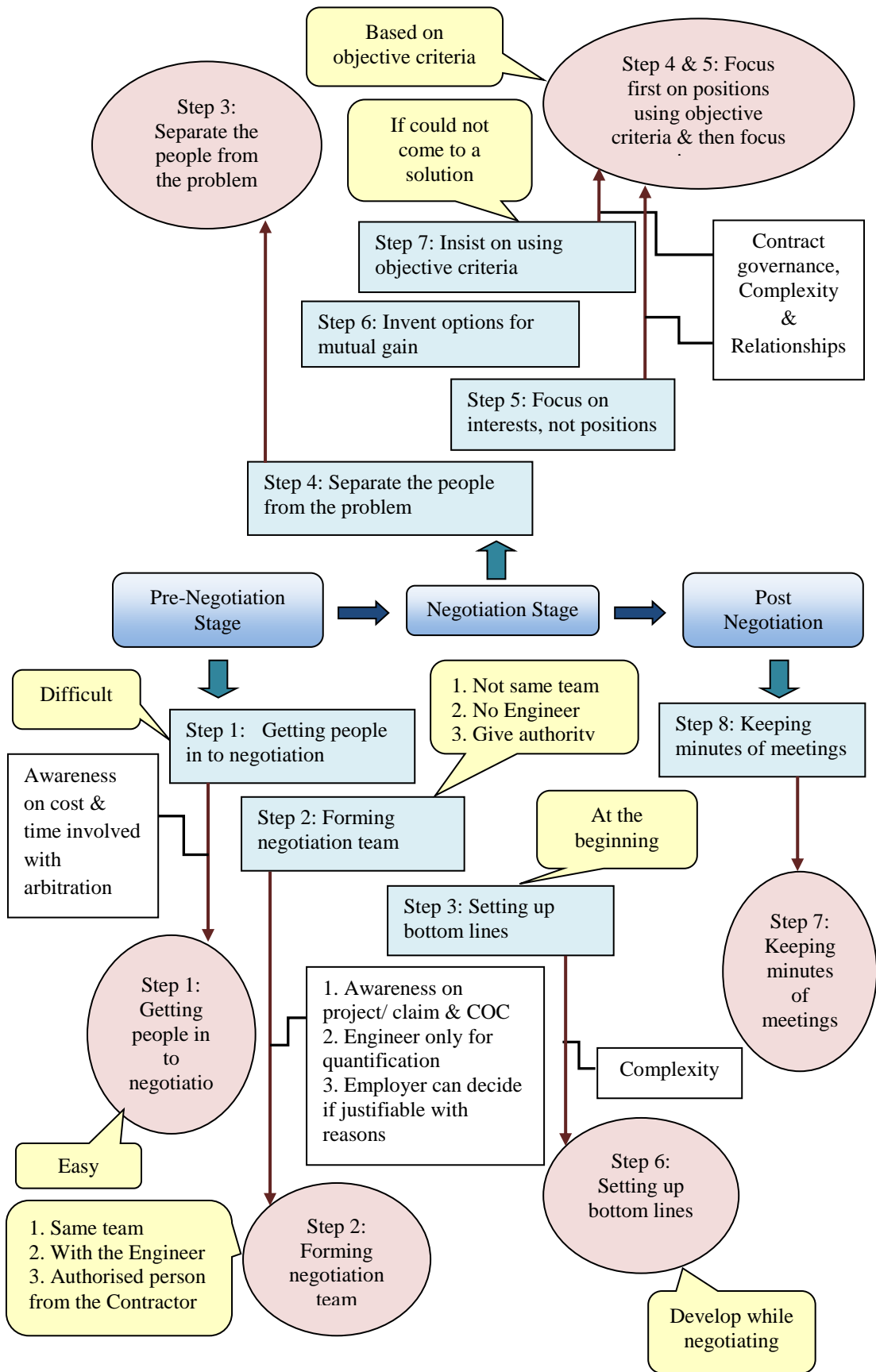


Figure 5.5: Cognitive map of research findings

## **5.6. Summary**

Requisites of successful negotiation identified in theory are developed in general business negotiation context. However the theory was not validated in respect of claim based dispute negotiation in construction industry. Little evidence from research findings shows that theory is not applicable in fully to the studied field. Thus it is identified that theory is extended to comply with special characteristics in claim based dispute negotiation in construction industry.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

Chapter six intends to summarise and conclude the study while explaining limitations that the study carried out. Further the chapter explains recommendations of this research study and future research directions which will help to expand the knowledge recommended.

### **6.1. Summary of the Study**

Negotiation is identified as the first to be used before any other ADR methods to resolve a construction dispute (Cheung et al., 2006) which is also identified as the most suitable (De Zylva, 2007) and the preferred (Jayasena & Kavinda, 2012) ADR method to resolve construction disputes. However it was found out that the parties to construction contracts fail frequently in achieving settlement through negotiation (Cheung & Chow, 2011). Therefore the study was focused on answering how to achieve a win-win settlement for claims based disputes negotiation in construction projects. Aim of the research was to develop a conceptual framework for carryout negotiations successfully to achieve win-win settlement for claims based disputes in construction.

In order to achieve the said aim the study started with a testing theory that explains the applicability of theoretical framework to the given context. Then the study followed forward and extended the theory through exploring how to address special characteristics in claims based dispute negotiations. Theoretical framework was identified through analysis and synthesizes of literature. Case study research strategy was selected and qualitative data was collected using document review and semi-structured interviews to identify how theory was to be extended for the applicability to the studied context. The study was carried out through five objectives. The findings in relation to objectives were brought together to provide an answer to the research problem.

### **6.1.1. Completion of the first objective**

The first objective of this study was to identify negotiation principles to conduct negotiations towards win-win settlement. This was achieved completely through literature review based on current knowledge illustrated in Figure 6.1 as follows.

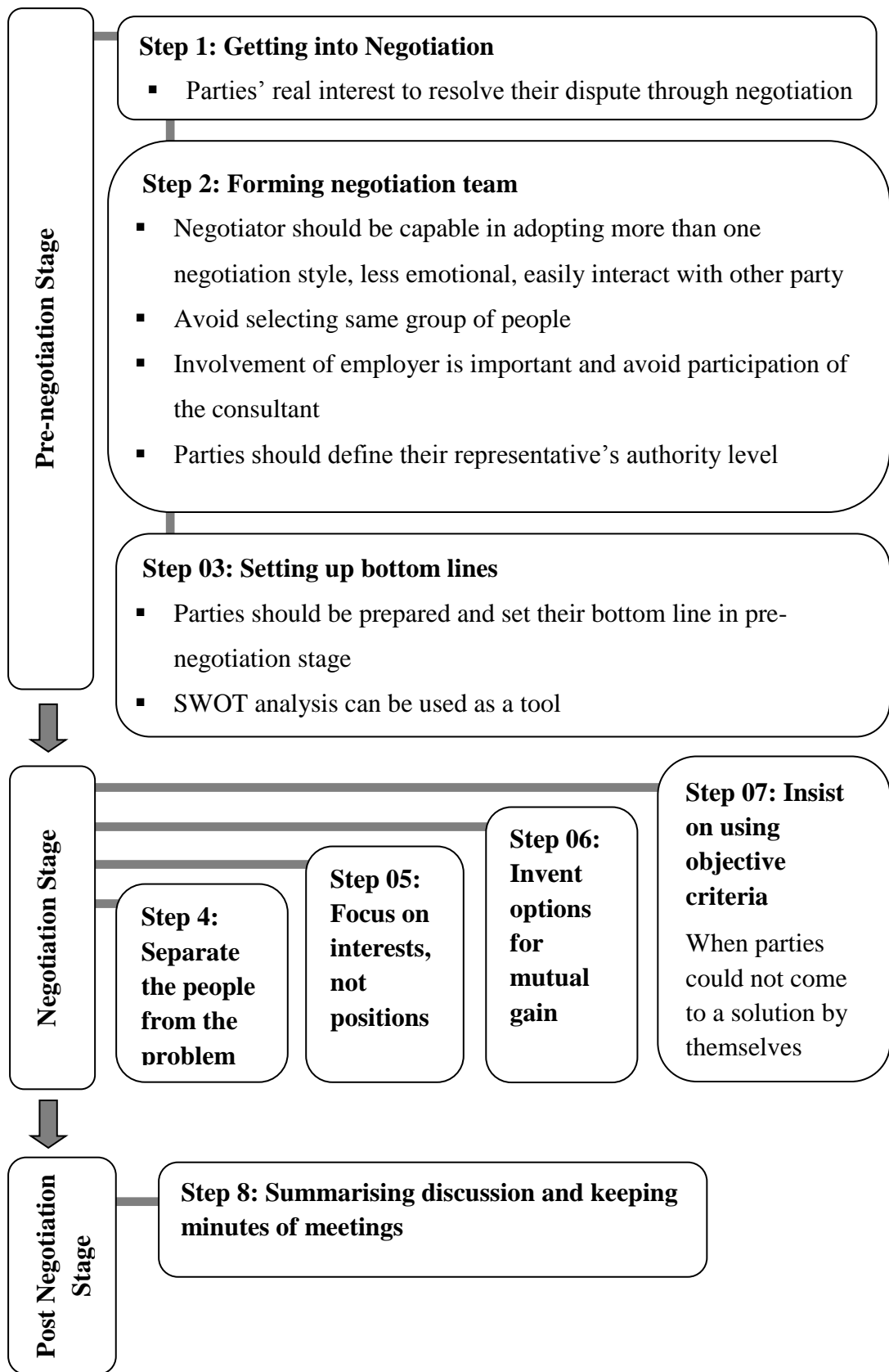


Figure 6.1: Theoretical framework to achieve win-win settlement

### **6.1.2. Completion of the second objective**

The second objective of this study was to identify characteristics of construction claims that influence success of negotiating claims based disputes. This was achieved basically through literature review and key findings summarised as follows;

- Limiting the employer's participation directly to negotiations and participate the consultant as an agent of the employer (Ren, 2002) makes negotiation weak. The consultant tends to discourage claims (Ren, 2002) "especially when claims are caused by his mistakes" (Ren et al., 2011, p.125).
- Selecting same group of people who lead the dispute as negotiators makes difficult for them to make any progress on the basis of same evidences and arguments due to fixed or prejudged minds and negative relationships (Ren et al., 2011).
- Unlike other business negotiation it is very difficult to find ZOPA in claims negotiation due to complexity involved (Pickavance, 2005, Ren et al., 2011).
- Construction dispute negotiation is highly influenced by the governance contract (Cheung et al., 2008).
- Once negotiation fails, disputes have to be resolved by other means of dispute resolution mechanism as agreed (Chow et al., 2011). By walking away from negotiation table, parties may get trapped in lengthy and costly actions (Chow et al., 2011) such as arbitration.
- Construction is a relationship based industry, which makes parties tend to maintain or strengthen their relationship with each other (Thomas, 2001).

### **6.1.3. Completion of the third objective**

The third objective was to explain the negotiation principles applicability to claims based disputes negotiation. According to pattern-matching analysis, research findings agree and explain the theory as follows.

- Parties' awareness about cost and time involved with arbitration procedure creates real interest to resolve their dispute through negotiation. Parties' real

interest to resolve their dispute through negotiation is a key factor behind the success.

- When forming negotiation team involvement of employer is important and the parties should define their representative's authority level.
- Separating people from the problem is very important to achieve successful outcome through negotiation.
- Keeping minutes of meetings at the end of each negotiation session is identified as a key factor behind the success.

#### **6.1.4. Completion of the fourth objective**

Fourth objective of the study was to explore on how to address special characteristics of construction claims in order to achieve win-win settlement. According pattern-matching analysis research findings disagree with the theory and explore knowledge to match with the studied context as follows.

- As the first step to manage complexity of construction claims, the following steps were identified.
  - a. When forming negotiation team negotiators should be well aware on the project, claim history, claim events and contractual entitlement according to contract between the parties. Thus they should be selected from same group of professionals involved in the project.
  - b. Keep an open-mind and let the bottom line change as negotiation proceed.
  - c. Parties should have intention to consider both position and interest based approaches in negotiation. When position based negotiation carried out, first step is to agree in principle on entitlement and then quantify based on agreed terms. Thus using mixed approach of both position and interest base addresses sophisticated contract governance nature and relationship based of construction industry.

- Further in order to avoid consultants tendency to discourage claims, it is noted that without avoiding participation of the consultant as an agent of the employer, involvement has to be limited to claim quantification.
- In the studied context it is identified that inventing options is not important to achieve win-win settlement. Further from the beginning of negotiation as a basis for the entitlements objective criteria such as contract document, professional standards and decided cases shall be used.

#### **6.1.5. Completion of the fifth objective**

The fifth objective and main outcome was the conceptual framework development to successfully negotiate claims based disputes in road development projects in Sri Lanka. The conceptual framework developed in Figure 6.2 as follows.



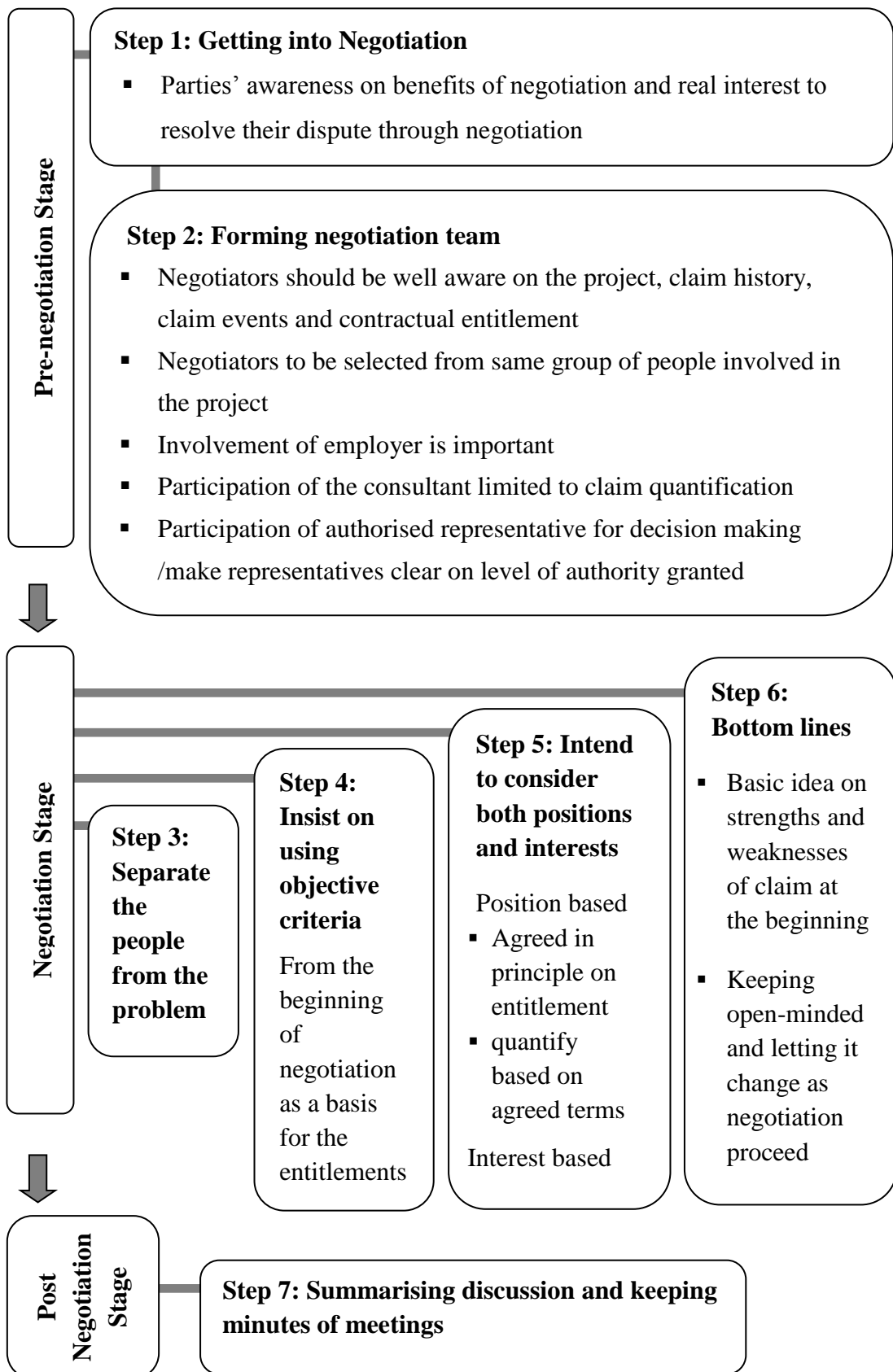


Figure 6.2: Conceptual framework to achieve win-win settlement

## **6.2. Conclusion**

According to findings of the study, it can be concluded that applicability of negotiation principles in to claims based dispute negotiation is limited and it should be merged with characteristics of construction industry.

Major deviation from existing theory when applying to claims based dispute negotiation in road project is the parties shall have intention to negotiate based on both position and interests in order to reach a settlement.

## **6.3. Recommendations**

According to findings of the research study following recommendations can be made as contribution to the knowledge and industry practitioners.

### **6.3.1. Contribution to the knowledge**

The developed conceptual framework based on research findings contributes the body of knowledge through extending the theory. Conceptual framework developed merging theoretical framework with characteristics of construction industry in order to identify the key steps to be followed to reach a win-win settlement to claims based dispute in studied context within given limitations as illustrated in Figure 6.2.

### **6.3.2. Industry practitioners**

Based on research findings private sector contracting organisations and public sector employers who are involved in road development projects should takes the following in order to achieve win-win settlement through negotiation for dispute created on unsettled claims.

- Improve skills of negotiators representing through training programmes

- Public sector organisations shall make aware professionals who are representing the organisation on possibility of decisions making on negotiation within the authority level granted
- Developed conceptual framework can be used by industry practitioners in order to reach settlement for claims based disputes via negotiations

#### **6.4. Limitations of the Research**

According to the study there are some limitations in generalizing the findings. The study was limited to;

- Foreign funded road improvement projects
- Disputed claim amount in selected cases was more than 40% of initial accepted contract amount
- Based on literature findings it was assumed that settlement can be only reached through two different approaches, that are; position base negotiation and interest base negotiation
- Since win-win settlements in claims based dispute negotiation are not common in Sri Lankan context, opinions of negotiators were validated only via document study and content analysis that was within case analysis and cross case analysis

#### **6.5. Further Research Directions**

In order to generalize the findings while overcoming limitations of the study, further research directions were identified as follows;

- The study is limited to road development projects which is party to negotiation was a state sector organisation. A study can be carried out to find out applicability of negotiation principles for claims based disputes in large scale building projects which both the parties' private sector organisations.
- A study can be carried out to determine applicability of developed framework for small scale claims based dispute negotiations.

- This research has extended the theory through exploring how to address special characteristics in claims based dispute negotiations. The identified conceptual framework is not commonly practiced in Sri Lankan construction industry and it is not common in achieving win-win settlement through negotiation for claims based disputes. Therefore in-depth study of each success factors through an action research with a case study will further contribute to the knowledge for successful adoption of negotiation to claims based dispute in construction.

## REFERENCES

- Alfredson, T., & Cungu, A. (2008). *Negotiation theory and practice: a review of the literature*. Retrieved from [http://www.fao.org/docs/up/easypol/550/4-5\\_negotiation\\_background\\_paper\\_179en.pdf](http://www.fao.org/docs/up/easypol/550/4-5_negotiation_background_paper_179en.pdf)
- Amarasooriya, B., & Abeynayake, M. (2011). Arbitration as an effective mechanism for dispute resolution in construction industry of Sri Lanka. In *Proceedings of the 15<sup>th</sup> Pacific Association of Quantity Surveyors Congress*, (pp.1-9). Colombo, Sri Lanka: Institute of Quantity Surveyors Sri Lanka.
- Arbitration Act No 11 of 1995. *Sri Lanka legislative enactments*, Ministry of Justice of Sri Lanka.
- Berghoff, E. A., Fieweger, M. J., Linguanti, T. V. M., Morkin, M. L., & Vigil, A. C. (2007). *The international negotiations handbook: success through preparation, strategy, and planning*. Retrieved from [http://www.bakermckenzie.com/files/Uploads/Documents/Supporting%20Your%20Business/Featured%20Services/bk\\_internationalnegotiationshandbook\\_dec07.pdf](http://www.bakermckenzie.com/files/Uploads/Documents/Supporting%20Your%20Business/Featured%20Services/bk_internationalnegotiationshandbook_dec07.pdf)
- Bruneski, P., & Chen, E. (2007). *A guide to research tools: SWOT analysis*. Retrieved from <http://web.viu.ca/rtri/SWOT%20Analysis.pdf>
- Central Bank of Sri Lanka. (2013, April). *Economic and social statistics of Sri Lanka 2013*. Retrieved from Central Bank of Sri Lanka website: [http://www.cbsl.gov.lk/pics\\_n\\_docs/10\\_pub/docs/statistics/other/econ\\_&\\_ss\\_2013\\_e.pdf](http://www.cbsl.gov.lk/pics_n_docs/10_pub/docs/statistics/other/econ_&_ss_2013_e.pdf)
- Cheung, S. O., & Chow, P. T. (2011). Withdrawal in construction project dispute negotiation. *Construction Engineering and Management*, 137, 1071–1079. doi: 10.1061/(ASCE)CO.1943-7862.0000388
- Cheung, S. O., Wong, W. K., Yiu, T. W., & Kwok, T. W. (2008). Exploring the influence of contract governance on construction dispute negotiation. *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. *Construction Engineering and Management*, 132(2006), 805-814. doi:10.1061/(ASCE)0733-9364(2006)132:8(805)
- Chow, P. T., Cheung, S. O., & Yiu, T. W. (2011). A cusp catastrophe model of withdrawal in construction project dispute negotiation. *Automation in Construction*, 22(2012), 597–604. doi:10.1016/j.autcon.2011.12.006
- Cotton, J. (2013). Negotiated settlements. *Legal Affairs and Dispute Resolution in Engineering and Construction*, 5(2013), 57-59. doi: 10.1061/(ASCE)LA.1943-4170.0000113
- De Zylva, E. (2007). Alternative dispute resolution systems for construction contracts. In K. Kanag-Isvaran & S. S. Wijerathna (Eds.), *Arbitration law in Sri Lanka* (pp. 117-138). Colombo, Sri Lanka: The Institute of the Development of Commercial Law and Practice.
- Department of Census and Statistics. (2013, September). *National accounts of Sri Lanka 2012*. Retrieved from Department of Census and Statistics website: [http://www.statistics.gov.lk/national\\_accounts/National%20Accounts%20of%20Sri%20Lanka.pdf](http://www.statistics.gov.lk/national_accounts/National%20Accounts%20of%20Sri%20Lanka.pdf)
- Dixon, R. A., & Lammi, M. (2004). Cognitive mapping techniques: implications for research in engineering and technology education. *Technology Education*, 25(2), 2-17. Retrieved from <http://scholar.lib.vt.edu/ejournals/JTE/v25n2/dixon.html>
- Dolnik, A. (2007). *Negotiating the impossible? the Beslan hostage crisis*. Retrieved from <https://www.rusi.org/downloads/assets/WHR2-07.pdf>
- Federation Internationale des Ingenieurs-Cons. (1999). *Conditions of contract for construction for building and engineering works*. Switzerland: Author.
- Federation Internationale des Ingenieurs-Cons. (2006). *Conditions of contract for construction for building and engineering works* (Multilateral Development Bank Harmonised ed.) Switzerland: Author.
- Fisher, R., Ury, W., & Patton, W. B. (1991). *Getting to yes* (2nd ed.). Retrieved from <http://6thfloor.pp.fi/fgv/gettingtoyes.pdf>

- Galloway, P. D., (2013). Engineering a successful negotiation. *Legal Affairs and Dispute Resolution in Engineering and Construction*, 5(2013), 6-12. doi: 10.1061/(ASCE)LA.1943-4170.0000097
- Ghauri, P. N. (2003). A framework for international business negotiations. In P.N. Ghauri & J. Usunier (Eds.), *International business negotiations* (pp. 3-22). Retrieved from <http://books.google.lk/books?id=YdLV7JpM-90C&printsec=frontcover#v=onepage&q&f=false>
- Hsieh, H., & Shannon, S. E. (2005). *Three approaches to qualitative content analysis*. *Qualitative Health Research*, 15(9), 1277-1288. doi: 10.1177/1049732305276687
- Jayalath, C. (2013). *Arguing construction claims*. Colombo, Sri Lanka: S. Godage & Brothers (Pvt) Ltd.
- 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.
- Johnson, R. B. (1997). *Examining the validity structure of qualitative research*. Retrieved from <http://www.researchgate.net/publication/246126534>
- Kanag-Isvaran, K. (2007). A comment on the operation of the arbitration act- has it worked. In K. Kanag-Isvaran & S. S. Wijerathna (Eds.), *Arbitration law in Sri Lanka* (pp. 169-178). Colombo, Sri Lanka: The Institute of the Development of Commercial Law and Practice.
- 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&>
- Lickson, C. P., & Maddux, R. B. (2005). *Negotiation basics win win strategies for everyone* (4th ed.). Retrieved from <http://www.axzopress.com/downloads/pdf/0619259078.pv.pdf>

- Lu, W., & Liu, J. (2013). Research into the moderating effects of progress and quality performance in project dispute negotiation. *Project Management*, 32(2014), 654-662. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0263786313001300>
- Mahmoodi, K. (2012). *Negotiation strategies and skills in international business*. Retrieved from [http://www.theseus.fi/bitstream/handle/10024/42807/Mahmoodi\\_Kosar.pdf?sequence=1](http://www.theseus.fi/bitstream/handle/10024/42807/Mahmoodi_Kosar.pdf?sequence=1)
- Malak, M. A. U. A., El-Saadi, M. M. H., & Abou-Zeid, M. G. (2002). Process model for administrating construction claims. *Management in Engineering*, 18(2), 84-94. doi:10.1061/(ASCE)0742-597X(2002)18:2(84)
- Marzouk, M., & Moamen, M. (2007). A framework for estimating negotiation amounts in construction projects. *Construction Innovation: Information, Process, Management*, 9(2), 133-148. Retrieved from <http://www.emeraldinsight.com/journals.htm?articleid=1784477&show=abstract>
- Ministry of Finance and Planning. (2010). *Sri Lanka: The emerging wonder of Asia – Mahinda chintana – vision for the future* Retrieved from Ministry of Finance and Planning website: <http://www.treasury.gov.lk/publications/mahindaChintanaVision-2010full-eng.pdf>
- Murdoch, J., & Hughes, W. (2008). *Construction contracts: law and management* (4th ed.). USA: Tylor and Francis.
- Pickavance, K. (2005). *Delay and disruption in construction contracts* (3rd ed.). Great Britain: MPG Books Publishers.
- Project Management Institute. (2008). *A guide to the project management body of knowledge* (4th ed.). USA: Author.
- Raiffa, H. (1982). *The art and science of negotiation*. Retrieved from <http://tonydorcey.ca/595/Art%20and%20Science.PDF>
- Ramus, J., Birchall, S., & Griffiths, P. (2007). *Contract practice for surveyors* (4th ed.). USA: Butterworth-Heinemann Publications.



- Road Development Authority. (2007). *National road master plan (2007-2017)*. Retrieved from Road Development Authority website: [http://www.rda.gov.lk/supported/noticeboard/publications/nrmp\\_executiveSummary.pdf](http://www.rda.gov.lk/supported/noticeboard/publications/nrmp_executiveSummary.pdf)
- Ren, Z., Anumba, C., & Ugwu, O. (2000). Towards a multi-agent system for construction claims negotiation. In *Proceedings of the 16<sup>th</sup> Annual ARCOM Conference*, (pp. 1,385-393). Retrieved from [http://www.arcom.ac.uk/-docs/proceedings/ar2000-385-393\\_Ren\\_Anumba\\_and\\_Ugwu.pdf](http://www.arcom.ac.uk/-docs/proceedings/ar2000-385-393_Ren_Anumba_and_Ugwu.pdf)
- 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
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). New York: Prentice Hall.
- Sebenius, J. K. (n.d.). *Negotiation analysis: between decisions and games*. Retrieved from <http://www.usc.edu/dept/create/assets/002/50863.pdf>
- Shapiro, S. S. (n.d.). *Dispute prevention/resolution negotiation techniques*. Retrieved from [http://www.shk.ca/docs/Dispute\\_Prevention\\_Resolution\\_Negotiation\\_Techniques.pdf](http://www.shk.ca/docs/Dispute_Prevention_Resolution_Negotiation_Techniques.pdf)
- Smith, M. L. (1992). Planning your negotiation. *Journal of Management in Engineering*, 8, 254–260. Retrieved from <http://cedb.asce.org/cgi/WWWdisplay.cgi?77644>
- Thomas, K. W., & Kilmann, R. H. (2010). *Thomas-Kilmann instrument conflict mode*. Retrieved from <https://www.cpp.com/pdfs/smp248248.pdf>
- Thomas, R. (2001). *Construction contract claims* (2nd ed.). Great Britain: Palgrave Macmillan Publishers.

- United Nations. (1994). *UNCITRAL model law on international commercial arbitration*. Austria: Author.
- Vecchi, G. M., Hasselt, V. B. V., & Romano, S. J. (2004). Crisis (hostage) negotiation: current strategies and issues in high-risk conflict resolution. *Aggression and Violent Behavior, 10*(2005), 533–551. doi:10.1016/j.avb.2004.10.001
- Wideman, R. M. (1990). *Construction Claims Identification, Communication and Record Keeping*. Retrieved from <http://www.maxwideman.com/papers/construction/construction.pdf>
- Yin, R. K. (2003). *Case study research: design and methods* (3rd ed.). London: Sage Publications.
- Yin, R. K. (2004). *Case study methods*. Retrieved from <http://www.cosmoscorp.com/Docs/AERAdraft.pdf>
- Yiu, T. W., Keung, C. W., & Wong, K. L. (2011). Application of equity sensitivity theory to problem-solving approaches in construction dispute negotiation. *Management in Engineering, 27*(1), 40-47. doi: 10.1061/\_ASCE\_ME.1943-5479.0000031
- Yuan, H., & Ma, H. (2012). Game analysis in the construction claim negotiations. *Procedia Engineering, 28*(2012), 586-593. doi:10.1016/j.proeng.2012.01.773
- Zainal, Z. (2007), *Case study as a research method*. Retrieved from <http://core.ac.uk/download/pdf/11784113.pdf>
- Zhang Y. & Wildemuth, B. M. (2007), *Qualitative analysis of content*. Retrieved from [https://www.ischool.utexas.edu/~yanz/Content\\_analysis.pdf](https://www.ischool.utexas.edu/~yanz/Content_analysis.pdf)
- Zou, P. X. W., Zhang, G., & Wang, J. (2007). Understanding the key risks in construction projects in China. *Project Management, 25* (2007), 601–614. doi: 10.1016/j.ijproman.2007.03.001

## **APPENDIX A: LIST OF DOCUMENTS REVIEWED**

### **Documents reviewed for Case A**

- DA1 - Contract Document
- DA2 - Claim 01: Cost associated with acceleration
- DA3 - Claim 02: Cost associated with acceleration
- DA4 - Claim 03: Cost associated with legislation change
- DA5 - Claim 04: EOT
- DA6 - Claim 05: Cost associated with scope change
- DA7 - Engineer's Determination for Claim 01 and 02
- DA8 - Engineer's Determination for Claim 03
- DA9 - Engineer's Determination for Claim 04
- DA10 - Engineer's Determination for Claim 05
- DA11 - Notice to arbitration
- DA12 - Employer's reply to arbitration notice
- DA13 to DA17 - Claim negotiation meeting minutes (Session 01 to 05)
- DA18 - Agreement of amicable settlement

### **Documents reviewed for Case B**

- DB1 - Contract Document
- DB2 - Claim 01: EOT and Cost associated with material shortage
- DB3 - Claim 02: EOT and Cost associated with delayed drawings, delayed Site possession and Variations
- DB4 - Claim 03: Cost associated with quantity change
- DB5 - Claim 04: EOT due to exceptional adverse weather
- DB6 - Claim 05: Cost associated with Variations
- DB7 - Engineer's Determination for Claim 04
- DB8 - Engineer's Determination for all Cost claims
- DB9 to DB18 - Claim negotiation meeting minutes (Session 01 to 10)
- DB19 - Notice to arbitration
- DB20 - Employer's reply to arbitration notice
- DB21 - Agreement of amicable settlement

## **APPENDIX B: TERMS AND DEFINITIONS**

All words started with capital letters are defined as per the General Conditions of Contract in FIDIC 1999 as explained below. Unless otherwise start with capital letter it contain meaning as per the context requires.

**“Contract”** means agreement made between the Employer and the Contractor in case A or case B as per the context requires

**“Contractor”** means the person(s) named as contractor in the Contract in case A or case B as per the context requires

**“Employer”** means the person named as employer in the Contract in case A or case B as per the context requires

**“Engineer”** means the person appointed by the Employer to act as the Engineer or consultant for the purposes of the Contract in case A or case B as per the context requires

**“Party”** means the Employer or the Contractor

**“Taking-Over Certificate”** means a certificate issued at the taken over by the Employer when the works have been completed in accordance with the Contract

**“Time for Completion”** means the time for completing the scope of work agreed

**“Variation”** means any change to the scope of work agreed

**APPENDIX C: INTERVIEW GUIDE FOR CONTRACTOR REPRESENTATIVE**

**Topic: Claims based Dispute Negotiation**

**1.0 General Overview**

- 1.1 Project : .....
- 1.2 Party Represented : .....
- 1.3 Designation : .....
- 1.4 Qualifications : .....
- 1.5 Years of Experience: .....

1.6 Can you explain your role and time period that you joined in to this project?  
.....

**2.0 Getting people in to negotiation**

2.1 In respect of this case, what was the position of your side resolving the dispute through negotiation?  
.....  
.....

2.2 You have sent an arbitration notice?  
.....  
.....

**3.0 Selecting Negotiators and Determining the Level of Authority**

3.1 Have you specifically select negotiators to represent your side? If so reasons for selection?  
.....  
.....

3.2 Have you dropped someone being negotiator? Why?

.....  
.....

3.3 Can you explain about the authority that the company granted you as representative of this particular case?

.....  
.....

**4.0 Preparation for Negotiation**

4.1 Have you decided what will be maximum amount of give-up to achieve settlement?

.....  
.....

4.2 What factors have you consider when calculating your bottom line?

.....  
.....

**5.0 According to theories of negotiation to achieve successful outcome four steps were identified to follow at the negotiation table.**

**Can you explain whether you followed these steps? Identify any step that you feel should be changed? Give reasons.**

Step 1: Separate the people from the problem

.....  
.....

Step 2: Focus on interests, not positions

.....  
.....

Step 3: Invent options for mutual gain

.....  
.....

Step 4: Insist on using objective criteria

.....  
.....

**6.0 Summarising discussion and keeping minutes of meetings**

6.1 Have you summarising discussion and keeping minutes of meetings? Do you think it is important?

.....  
.....

**7.0 It is identified construction claims based negotiations have some special characters which make negotiation hard. How did you overcome those barriers in this case?**

7.1 When claims are arising out of his own mistakes the consultant tends to discourage such claims

.....  
.....

7.2 By selecting same group of people who leads to disputes makes difficult for them to make any progress due to prejudged minds, negative relationships or attitudes toward each other

.....  
.....

7.3 Construction claims are complex and most of the time both parties truly believe that they hold the truth and the opponent's requests are unreasonable

.....  
.....

7.4 Negotiation highly influenced by the governance contract

.....  
.....



## APPENDIX D: INTERVIEW GUIDE FOR EMPLOYER REPRESENTATIVE

### Topic: Claims based Dispute Negotiation

#### 1.0 General Overview

- 1.1 Project : .....
- 1.2 Party Represented : .....
- 1.3 Designation : .....
- 1.4 Qualifications : .....
- 1.5 Years of Experience: .....

1.6 Can you explain your role and time period that you joined in to this project?

.....

#### 2.0 Getting people in to negotiation

2.1 In respect of this case, what was the position of your side resolving the dispute through negotiation?

.....  
.....

2.2 But there was a deadlock which makes the Contractor sent an arbitration notice, and then only you decided to consider cost claims?

.....  
.....

#### 3.0 Selecting Negotiators and Determining the Level of Authority

3.1 Have you specifically select negotiators to represent your side? If so reasons for selection?

.....  
.....

3.2 Have you dropped someone being negotiator? Why?

.....  
.....

3.3 Can you explain about the authority you had as a government servant to take decisions of this particular case?

.....  
.....

**4.0 Preparation for Negotiation**

4.1 Before start negotiation, have you decided what will be maximum amount of give-up to achieve settlement?

.....  
.....

4.2 What factors have you consider when calculating how much to give?

.....  
.....

**5.0 According to theories of negotiation to achieve successful outcome four steps were identified to follow at the negotiation table.**

**Can you explain whether you followed these steps? Identify any step that you feel should be changed? Give reasons.**

Step 1: Separate the people from the problem

.....  
.....

Step 2: Focus on interests, not positions

.....  
.....

Step 3: Invent options for mutual gain

.....  
.....

Step 4: Insist on using objective criteria

.....  
.....

**6.0 Summarising discussion and keeping minutes of meetings**

6.1 Have you summarising discussion and keeping minutes of meetings? Do you think it is important?

.....  
.....

**7.0 It is identified construction claims based negotiations have some special characters which make negotiation hard. How did you overcome those barriers in this case?**

7.1 When claims are arising out of his own mistakes the consultant tends to discourage such claims

.....  
.....

7.2 By selecting same group of people who leads to disputes makes difficult for them to make any progress due to prejudged minds, negative relationships or attitudes toward each other

.....  
.....

7.3 Construction claims are complex and most of the time both parties truly believe that they hold the truth and the opponent's requests are unreasonable

.....  
.....

7.4 Negotiation highly influenced by the governance contract

.....  
.....

## APPENDIX E: INTERVIEW GUIDE FOR ENGINEER REPRESENTATIVE

### Topic: Claims based Dispute Negotiation

#### 1.0 General Overview

- 1.1 Project : .....
- 1.2 Party Represented : .....
- 1.3 Designation : .....
- 1.4 Qualifications : .....
- 1.5 Years of Experience: .....

1.6 Can you explain your role and time period that you joined in to this project?

.....

#### What is your view in respect of following?

#### 2.0 The Engineer's role in this negotiation

.....  
.....

#### 3.0 Getting people in to negotiation

3.1 In this case, both the Parties like resolving the dispute through negotiation?

.....  
.....

#### 4.0 Selecting Negotiators

.....  
.....

**5.0 Preparation for Negotiation**

5.1 Before start negotiation, have you decided what will be maximum amount of give-up to achieve settlement?

.....  
.....

**6.0 According to theories of negotiation to achieve successful outcome four steps were identified to follow at the negotiation table.**

**Can you explain whether you followed these steps? Identify any step that you feel should be changed? Give reasons.**

Step 1: Separate the people from the problem

.....  
.....

Step 2: Focus on interests, not positions

.....  
.....

Step 3: Invent options for mutual gain

.....  
.....

Step 4: Insist on using objective criteria

.....  
.....

**7.0 Summarising discussion and keeping minutes of meetings**

7.1 Have you summarising discussion and keeping minutes of meetings? Do you think it is important?

.....  
.....

**8.0 It is identified construction claims based negotiations have some special characters which make negotiation hard. How did you overcome those barriers in this case?**

8.1 By selecting same group of people who leads to disputes makes difficult for them to make any progress due to prejudged minds, negative relationships or attitudes toward each other

.....  
.....

8.2 Construction claims are complex and most of the time both parties truly believe that they hold the truth and the opponent's requests are unreasonable

.....  
.....

8.3 Negotiation highly influenced by the governance contract

.....  
.....