

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

Samurdi Baduge\*

Resources Development Consultants (Pvt) Ltd, Sri Lanka

Himal Suranga Jayasena

Department of Building Economics, University of Moratuwa, Sri Lanka

## ABSTRACT

*Effective resolution of dispute is always helpful for sustainable construction practices. However, it is experienced that parties continuously failing to reach settlements in an effective and efficient manner. Although many researches write on how to carryout negotiations successfully those concepts hardly adopted in construction dispute negotiations. Construction dispute negotiations are different to other business negotiations due to some unique features inherited such as complexity, regulated by contract, and tendency of discouraging claims. Therefore, it is identified new theories need to be developed and applied in construction dispute negotiations. Thus, the study was focused on improvement of fundamental principles of negotiation to address characteristics of 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, it was identified how parties have addressed special characteristics of claims based disputes in construction projects when conducting negotiations.*

*Analysis reveals that, how far theory can be explained through research findings and which theory should be extended based on knowledge explored. Accordingly conceptual framework had been 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 in a road project is negotiation shall be based on both position and interest of the parties.*

**Keywords:** Claims; Dispute Resolution; Negotiation; Win-win Settlement; Road Projects.

## 1. INTRODUCTION

Unsettled claims lead to disputes between parties to the contract (Malak *et al.*, 2002), which is a common phenomenon in construction industry. Often parties fail to reach settlements for these disputes “in an effective, economical and timely manner” (Barrie and Paulson, 1992 cited Ren, 2002, p.17). Resolving disputes effectively is always helpful for sustainable construction practices.

To resolve construction disputes, parties use several methods. Due to numerous advantages inherited such as cost effectiveness, informality, speediness, simplicity, confidentiality, party autonomy and preservation of business relationship, negotiation is identified as the most suitable (De Zylva, 2007) and the preferred (Jayasena and 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 to reach an agreement” (Project Management Institute, 2008, p.421).

---

\* Corresponding Author: E-mail - [samurdi\\_baduge@yahoo.com](mailto:samurdi_baduge@yahoo.com)

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). Standard forms of contracts and arbitration acts also encourage amicable settlements (Arbitration Act, 1995; FIDIC, 1999; FIDIC, 2006).

However construction dispute negotiation is not simple. 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, 2015). As a result of this it can be seen that claim negotiations are often difficult, adversarial, inefficient and ineffective (Ren, 2002; Hu, 2006 cited 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, p.131) identified that to improve sustainable construction practices “new theories and principles need to be developed and applied in claims based dispute negotiations”. Thus the study is focused on improvement of fundamental principles of negotiation to adopt in claim based disputes settlement in construction industry.

## **2. STUDY METHOD**

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 projects. Accordingly, this study focuses on how to achieve a win-win settlement for claims based disputes negotiation in construction industry. Aim of the research was to develop a conceptual framework to achieve win-win outcome from claims based dispute negotiations which would be 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 explored new paradigm which was particular to construction industry through understanding of the situation. Thus research is combination of explanatory study and exploratory study. Accordingly, this paper aims to extend a theory.

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, p.4) 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”. Accordingly, in this research, case study research strategy was used. Two case studies were examined where claim based disputes were successfully resolved through negotiation. Document review and semi-structured interviews were used as data collection techniques. 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. Thus content analysis was selected as the basic data analysis technique of this study. Content analysis includes both “within case analysis” and “cross case analysis”. Pattern matching was used to compare the literature findings against case study findings to identify applicability of negotiation principles for dispute negotiations to claims based dispute negotiations in construction projects.

## **3. STEPS TO MAKE A SUCCESSFUL NEGOTIATION**

Review of current literature, showed that there would be eight steps to make a negotiation success identified under three stages of negotiation process. Pre-negotiation stage consists of three steps which should be followed in sequence before sit in the negotiation table. Those steps are (i) getting people in to negotiation, (ii) forming negotiation team and (iii) 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 (iv) separate the people from the problem, (v) focus on interests, (vi) invent options for mutual gain and (vii) insist on using objective criteria. At the end of the negotiation session, to conduct negotiation efficiently it is identified the parties should (viii) summarise the discussion and keep minutes of meetings as the last step.

### **3.1. STEP 1: GETTING PEOPLE IN TO NEGOTIATION**

Ghauri and Usunier (2003) identifies 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) state that unlike a business negotiation, getting people in to negotiation table is the hardest in respect of a dispute negotiation. Since negotiation is a voluntary process, parties' real interest to resolve their dispute through negotiation is important to achieve a successful outcome.

### **3.2. STEP 2: FORMING NEGOTIATION TEAM**

Smith (1992) identifies that the negotiator should be capable in adopting more than one negotiation style. Further he recognizes that emotional people should not be selected as negotiators since their emotions easily can get them in to trouble. In case if other party's negotiators are known, it is important to select people who will interact easily with them. Further to these, Ren (2002) states that the parties should define their representative's authority level which will be helpful in making successful conclusions to a negotiation.

### **3.3. STEP 3: SETTING UP BOTTOM LINES**

Proper preparation is essential to negotiate successfully (Ghauri and Usunier, 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 better outcomes (Ren *et al.*, 2002). 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 and Ma, 2012). Knowing their own weaknesses will minimise creation of unreasonable deadlocks. Thus preparation is very important in carrying out an effective negotiation.

In negotiation, each party has a 'bottom line' which is "the maximum or minimum amount which a party can offer to or accept from its opponent" (Ren, 2002, p.166). Overlap range between bottom lines of the parties constitutes the possible scope of an agreement which is called 'Zone of Possible Agreement' (ZOPA). This is a theoretical "zone" which is not known to the parties and only possible to partially identify through negotiating (Alfredson and Cungu, 2008). The SWOT analysis can be used to set up bottom lines as preparation in pre-negotiation stage.

### **3.4. STEP 4: SEPARATE THE PEOPLE FROM THE PROBLEM**

A basic fact about negotiation is that 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 and unhappy. This may result in confusing their perceptions with reality and difficulty in clear communication (Fisher *et al.*, 1991). Shapiro (2015) states that, at the negotiation table parties should avoid the debate getting personal but keep everything on business level.

### **3.5. STEP 5: FOCUS ON INTERESTS, NOT POSITIONS**

Positions are what parties say that they want, but interests are things that they really need. Often position and interest are not the same (Ren *et al.*, 2011). Fisher *et al.* (1991, p.24) state 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". Thus to understand the true problem behind the dispute, it is required to identify the real interests of the parties. Ren *et al.* (2011) further explain 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, p.124) has found that the "underlying true interests are actually compatible, not mutually exclusive". Hence to achieve win-win outcome parties should focus on interests, not on positions.

### **3.6. STEP 6: INVENT OPTIONS FOR MUTUAL GAIN**

Fisher *et al.* (1991) point out that generally people negotiate 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. Fisher *et al.* (1991) identify that the parties should invent options to the real problem behind the dispute.

### **3.7. STEP 7: INSIST ON USING OBJECTIVE CRITERIA**

Fisher *et al.* (1991) suggest that when parties could not come to a solution, looking for an objective criterion will help to resolve the issue. 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). 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).

### **3.8. 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 and Usunier, 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 that have been agreed in negotiation (Ghauri and Usunier, 2003).

## **4. 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.

### **4.1. NEGOTIATORS**

Ren (2002) states that the employer’s direct involvement to negotiation is important and which is not practiced in most of the cases. Participation of the consultant as an agent of the employer makes negotiation weak especially when claims are arising out of his own mistakes the consultant tends to discourage such claims (Ren *et al.*, 2011; Ren, 2002).

Selecting same group of people who leads to disputes is a common mistake done when forming claim negotiation teams (Ren *et al.*, 2011). 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).

### **4.2. 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 exaggerates the opening demand by misrepresenting their contractual and/or legal positions (Pickavance, 2005).

### **4.3. CONTRACT GOVERNANCE**

Construction projects are generally regulated by very sophisticatedly prepared conditions of contract that defines rights and obligations of the parties (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 item.

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

Two foreign funded road projects identified as Case A and Case B as described in following sections were selected as case studies in where claim based disputes were successfully resolved through negotiation. Study method adopted was described in section 2.

### **5.1. CASE A**

The project was a rehabilitation class A road in which the Parties to Contract were state sector authority and a local (ICTAD grading C1) contractor. The Engineer to the Contract was international and local joint venture. General Conditions of Contract were FIDIC MDB Harmonised edition 2006 (FIDIC, 2006). Accepted Contract Amount was above 1 billion LKR (7.5million USD) and Time for Completion was 450 days.

Claims 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. All three claims had been rejected by the Engineer. The Contractor gave-up his three cost claims without refereeing to dispute resolution mechanism specified in the Contract. Claim no 04 was a request of 130 days extension of Time for Completion. Determination of rejecting the claim was sent by the Engineer without proper evaluation. 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.

Thus, the 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 as the response to notice to commence arbitration.

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

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**

Project was improvements for provincial roads in which the Parties to Contract were state council and local (ICTAD grading C1) contractor. The Engineer to the Contract was international and local joint venture. General Conditions of Contract were FIDIC MDB Harmonised edition 2006. Accepted Contract Amount was near 400 million LKR (2.5 million USD) and Time for Completion was 547 days.

Five claims were submitted by the Contractor and Table 1 illustrates details of claims.

Table 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, the Engineer was at claim evaluation process and the Contractor was awaiting the Engineer's determination in regarding claims 01, 02 and 03. 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.

Based on claim no 01, 02 and 03, negotiations were commenced as invited by the Employer.

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 14.8million 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.

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.

Then the claim no 05 was submitted by the Contractor and 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

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 requested that the settlement would be within 56 to 58 million. The Parties agreed.

294 days of extension of Time for Completion was granted. 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; (a) non-recovered overhead and profit and cost of non-release of retention, (b) idling machinery cost, (c) rate revision for quantities reduction and (d) Variation 02 and 04 of claim no 05. Further 4.1 million rupees was granted declaring as concession for amicable settlement.

### 5.3. PATTERN MATCHING

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.

Result of pattern matching between theorized concepts and observed data of each steps of a successful negotiation is summarized and represented in Table 2.

Table 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>This 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 which is lengthy and costly.</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> </ul>	<ul style="list-style-type: none"> <li>Explain the theory</li> </ul>
<ul style="list-style-type: none"> <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>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>	
<b>Step 02: Forming negotiation team</b>		
When forming negotiation team followings are key facts to achieve success;	When forming negotiation team followings are key facts to achieve success;	

<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> </ul>	<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> </ul>	<ul style="list-style-type: none"> <li>Extend the theory</li> </ul>
<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Explain and extend the theory</li> </ul>
<ul style="list-style-type: none"> <li>Parties should define their representative's authority level</li> </ul>	<ul style="list-style-type: none"> <li>Parties should define their representative's authority level</li> </ul>	<ul style="list-style-type: none"> <li>Explain the theory</li> </ul>
<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 Findings elaborate that setting bottom line in pre-negotiation stage is not a key to address complexity but letting it develop with the negotiation</li> </ul> <p>Thus, it extend the theory</p>
<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>



<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>
<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> <li>Examples: contract document, professional standards and decided cases</li> </ul>	<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>

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 fully in construction. The analysis shows that that the existing theory needs to be extended to comply with special characteristics in claim based dispute negotiation in construction industry.

#### 5.4. SUMMARY

As the main outcome of the study a conceptual framework was developed to achieve successful outcome through negotiation for claims based disputes in road development projects in Sri Lanka. The conceptual framework developed is shown in Figure 1

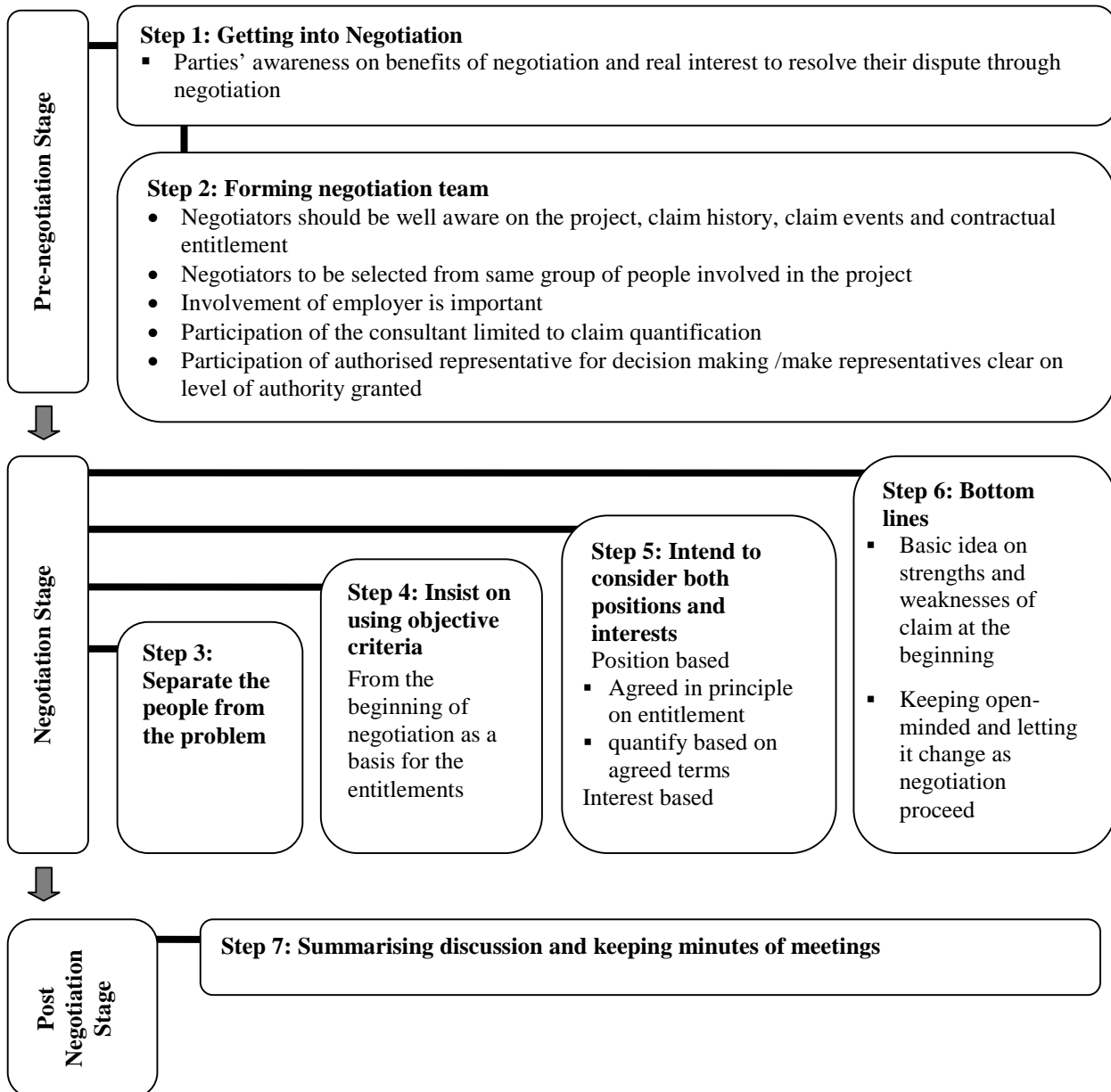


Figure 1: Conceptual Framework to Achieve Win-Win Settlement

## 6. 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 that the parties shall have intention to negotiate based on both position and interests in order to reach a settlement.

## 7. RECOMMENDATIONS

The developed conceptual framework based on research findings contributes the body of knowledge through extending the theory. The existing theory recommends only interest based approach, and recommends not taking position based approach; but, it is now clear that an interest and position based approach would bring success to construction dispute negotiation. Related theoretical concepts can therefore be interpreted accommodating this deviation when applied in construction contexts.

Based on above key findings and other research findings following recommendations shall be made to private sector contracting organisations and public sector employers who are involved in road development projects for them 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

## 8. 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

## 9. REFERENCES

- Alfredson, T. and Cungu, A., 2008. *Negotiation theory and practice: a review of the literature*[online]. USA, FAO. Available 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) [Accessed 01 June 2015].
- Arbitration Act, No 11 of 1995, 1995. Colombo: Government Publication Bureau.
- Cheung, S.O. and Chow, P.T., 2011. Withdrawal in Construction Project Dispute Negotiation. *Construction Engineering and Management*, 137(12), 1071–1079.
- Cheung, S.O., Wong, W.K., Yiu, T.W. and Kwok, T.W., 2008. Exploring the Influence of Contract Governance on Construction Dispute Negotiation. *Professional Issues in Engineering Education and Practice*, 134(4), 391-398.
- Cheung, S.O., Yin, T.W. Y. and Yeung, S.F., 2006. A Study of Styles and Outcomes in Construction Dispute Negotiation. *Construction Engineering and Management*, 132(8), 805-814.
- De Zylva, E., 2007. Alternative Dispute Resolution Systems for Construction Contracts. In K. Kanag-Isvaran and S.S. Wijerathna, ed. *Arbitration Law in Sri Lanka*, Colombo, Sri Lanka: ICLP, 117-138.
- Federation Internationale des Ingenieurs-Cons (FIDIC), 1999. *Conditions of Contract for Construction for Building and Engineering Works*. Switzerland: FIDIC.
- Federation Internationale des Ingenieurs-Cons (FIDIC), 2006. *Conditions of Contract (Multilateral Development Bank Harmonised Harmonised Ed.) for Construction for Building and Engineering Works*, Multilateral Development Bank Harmonised ed. Switzerland: FIDIC.
- Fisher, R., Ury, W. and Patton, W.B., (1991). *Getting to Yes: Negotiating Agreement Without Giving in*. 2nd ed. New York: Penguin Group.
- Ghuri, P.N. and Usunier, J., (2003). *International business negotiations* [online]. (2nd ed). *International business negotiations*[online]. Oxford, Pergamon. Available from: <http://books.google.lk/books?id=YdLV7JpM-90C&printsec=frontcover#v=onepage&q&f=false> [Accessed 01 June 2015].
- Jayasena, H.S. and Kavinda, Y.H., 2012. Most Appropriate Dispute Resolution Strategy for Sri Lankan Construction Industry. In *World Construction Conference 2012 – Global Challenges in Construction Industry*, Colombo 28-30 June 2012. Colombo: Ceylon Institute of Builders, 180-187.

- Mahmoodi, K., 2012. *Negotiation Strategies and Skills in International Business*. Thesis (BBA). Turku University of Applied Sciences.
- Malak, M.A.U.A., El-Saadi, M.M.H. and Abou-Zeid, M.G., 2002. Process Model for Administrating Construction Claims. *Management in Engineering*, 18(2), 84-94.
- 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: Project Management Institute.
- Ren, Z., 2002. *A Multi-Agent Systems Approach to Construction Claims Negotiation*. Thesis (PhD). Loughborough University.
- Ren, Z., Shen, G. Q., Xue, X. L. and 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.
- Shapiro, S.S., 2015. *Dispute Prevention/Resolution Negotiation Techniques* [online]. Available from: [http://www.shk.ca/docs/Dispute\\_Prevention\\_Resolution\\_Negotiation\\_Techniques.pdf](http://www.shk.ca/docs/Dispute_Prevention_Resolution_Negotiation_Techniques.pdf) [Accessed 01 June 2015].
- Smith, M.L., 1992. Planning Your Negotiation. *Journal of Management in Engineering*, 8(3), 254-260.
- Thomas, R., 2001. *Construction Contract Claims*. 2nd ed. Great Britain: Palgrave Macmillan Publishers.
- Yin, R.K., 2004. *Case Study Methods* [online]. Available from: <http://www.cosmoscorp.com/Docs/AERAdraft.pdf> [Accessed 01 June 2015].
- Yuan, H. and Ma, H., 2012. Game Analysis in the Construction Claim Negotiations. *Procedia Engineering*, 28, 586-593.
- Zainal, Z., 2007, *Case Study as a Research Method* [online]. Malaysia, University Teknologi. Available from: <http://core.ac.uk/download/pdf/11784113.pdf> [Accessed 01 June 2015].