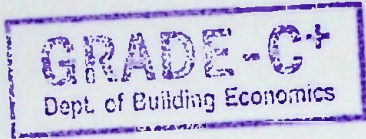


LB/DON/14/2019

BE 02/26

MINIMIZING DISPUTES IN CONSTRUCTION INDUSTRY:

ANALYSIS OF PROCUREMENT ARRANGEMENT DBE 05/26



MUNAWEERA C.J.

(149135C)

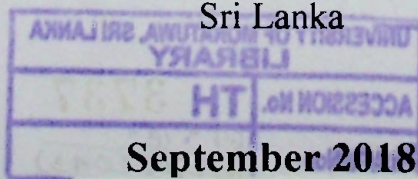
LIBRARY
UNIVERSITY OF MORATUWA, SRI LANKA
MORATUWA

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

Department of Building Economics

University of Moratuwa

Sri Lanka



773737

+

69-2018



TH3737

69 218

69:34(043)

DECLARATION

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Also, I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my dissertation, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as articles or books).

.....

08.09.2018

Munaweera C.J.

Date

The above candidate has carried out research for the Masters dissertation under my supervision.

.....

08.09.2018

Mr. Mahesh Abeynayake

Date

Dissertation Supervisor

ABSTRACT

The goal of every construction project stakeholder is the completion of a project that meets the objective of time, cost and function. However the construction process is often fraught with disputes. Because of differences in perception and frequently of conflicting goals among partners to a project, conflicts in the construction project environment are inevitable. However, conflicts can quickly turn into disputes if not properly managed. These unresolved disputes can lead to programme delay, increased tension, and can damage long term business relationships.

According to the theory, dispute occurrence is differing within different procurement arrangements. However, there is no empirical study carried out based on disputes within different procurement arrangement in Sri Lankan context. Therefore this research has carried out to provide suggestions to minimize disputes in different procurement arrangements.

Multiple case studies has been carried out by using four construction projects; two projects on traditional procurement method and two on design and build procurement method. During data collection semi structured interviews were conducted with professionals involved in four projects.

Analysis of cases indicates that, among the two procurement methods most of the disputes were raised due to deficient management, supervision and coordination effort of the Client, variations initiated by the owner, poor communication among project team, poor interpersonal skills, Lack of team spirit and lack of design management. There were no any significant difference between causes of disputes among projects procured under design & build procurement arrangement and traditional procurement arrangement. Therefore the research indicates that rather than expecting less disputes considering the project procurement method effort should be taken to avoid disputes by putting proper structure to handle the disputes within the project. Finally suggestions were made to minimize the disputes in construction projects which were procured under traditional and Design & Build procurement methods.

Key Words: *Disputes, Procurement Arrangement, Sri Lankan Construction Industry*

DEDICATION

*I dedicate this dissertation to my beloved parents and sisters, who have being the
utmost inspiration and light of my life...*

ACKNOWLEDGEMENT

This research is accomplished owes much devotion and admiration to many people who have contributed in numerous ways. Although it is difficult to point out each as individuals, but it is my duty to extend my gratitude to all of them who endeavor. First and foremost respectively, I greatly indebted my supervisor Mr. Mahesh Abeynayake for the given interest, encouragement, gentle guidance and invaluable support offered through out of this study.

It is my foremost duty to pay my gratitude to Head of Department of Building Economics, Dr. Yasangika Sandanayake, and all other staff members for the endorsement they gave me during the research period. Also another word of thank must go to all non-academic staffs members of the Department of Building Economics for valuable help given whenever I required.

I express my indebtedness to all participants in the survey for their encouragement, contribution, values and ideas, valuable assistance and especially their commitment towards this dissertation and the valuable time they spent to make this dissertation successful.

I extent my special prosperous thank to my seniors, juniors and specially my colleagues.

I should express my heartfelt thanks for my family and relations for giving me an outstanding company to make my life fruitful.

Munaweera C.J
08th September 2018

TABLE OF CONTENTS

DECLARATION	I
ABSTRACT	II
DEDICATION	III
ACKNOWLEDGEMENT	IV
TABLE OF CONTENT	V
LIST OF TABLES	VIII
LIST OF FIGURES	IX
ABBREVIATION	X
1.0 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Statement.....	3
1.3 Aim and Objectives	4
1.4 Scope and Limitation	4
1.5 Research Method.....	4
1.6 Chapter Breakdown.....	6
2.0 LITERATURE REVIEW.....	7
2.1 Introduction.....	7
2.2 Disputes in the Construction Industry	7
2.2.1 Conflicts	7
2.2.2 Claim	8
2.2.3 Dispute	9
2.2.4 Interrelationship among Conflicts, Claims and Disputes.....	9
2.3 Nature of the Disputes in Construction Industry	11
2.4 Causes of Construction Disputes	12
2.5 Effects of Contract Disputes.....	18
2.6 Construction procurement systems	18

2.6.1 Separated Procurement Arrangement	20
2.6.2 Integrated Procurement Arrangement	23
2.6.3 Management oriented systems	26
2.6.4 Collaborative systems	28
2.7 Procurement Arrangement selection.....	32
2.7.1 Client related factors	33
2.7.1 Project characteristic	36
2.7.2 External Environmental Characteristic	36
2.8 Factors considered in selecting Procurement Arrangement in the present Sri Lankan Context.....	37
2.9 Important factors to be considered in selecting Procurement Arrangement to minimize Disputes in Construction Projects	38
2.10 Summary.....	40
3.0 RESEARCH METHODOLOGY	41
3.1 Introduction.....	41
3.2 Research process	41
3.2.2 Literature Review	43
3.2.3 Research Approaches	43
3.2.4 Data collection	45
3.2.5 Data analysis	47
3.3 Summary.....	50
4.0 RESEARCH FINDINGS	51
4.1 Introduction.....	51
4.2 Case Study Analysis	51
4.2.1 Design and Build procurement Arrangement	52
4.2.2 Traditional Procurement Arrangement project.....	58

4.3 Cross Case Analysis.....	65
4.3.1 Design and Build: Inter-case analysis	65
4.3.2 Traditional arrangement: Inter-case analysis	70
4.3.3 Cross case Analysis: D&B Vs. Traditional Procurement Arrangement	74
5.0 CONCLUSIONS AND RECOMMENDATIONS.....	82
5.1 Introduction	82
5.2 Conclusions under the research objectives	82
5.3 Recommendations	83
5.4 Limitation	84
5.5 Further research direction.....	85
REFERENCES	86
ANNEXES A: INTERVIEW GUIDELINES	98

LIST OF TABLES

Table 2-1 : Causes of Disputes	14
Table 2-2: Summary of clients' requirements for a construction project	34
Table 3-1: Interview description of the Cases	47
Table 3-2: Measures taken to ensure validity and Reliability.....	49
Table 4-1: Brief Introduction to selected Projects	51
Table 4-2: Causes of Disputes in Design & Build Procurement Arrangement	66
Table 4-3: Effects of Disputes in Design & Build Procurement arrangement.....	68
Table 4-4: Suggestions to minimize disputes in Design & Build Procurement arrangement.....	69
Table 4-5: Causes of disputes in Traditional procurement arrangement	70
Table 4-6: Effects of disputes in Traditional Procurement arrangement	72
Table 4-7: Suggestions to minimize construction disputes in traditional arrangement	73
Table 4-8: Dispute Causes in Design & Build and Traditional Procurement Arrangements	74
Table 4-9: Effects of disputes in Design & Build and Traditional procurement arrangement.....	76
Table 4-10: Suggestions to minimize disputes in Design & Build and Traditional procurement arrangement	77

LIST OF FIGURES

Figure 1-1: Chapter Breakdown.....	6
Figure 2-1: Conflicts, Claims and Disputes	10
Figure 2-2: Common sources of construction dispute	13
Figure 2-3: Procurement arrangement systems	20
Figure 3-1: Reach Process	42
Figure 3-2 : Unit of analysis	44

ABBREVIATION

Abbreviation	Description
BOQ	Bill of Quantities
CVI	Confirmation of Verbal Instructions
D&B	Design and Build
GDP	Gross Domestic Product
ICC	International Chamber of Commerce
PA	Procurement Arrangement
QS	Quantity Surveyor
SL	Sri Lanka