SKILLS AND COMPETENCY REQUIREMENTS OF CONSTRUCTION PROFESSIONALS FOR EFFECTIVE DISPUTE MANAGEMENT IN CONSTRUCTION INDUSTRY

Rajapakshe Wasala Panditharathna Mudiyanselage Imashi Sasidya Rajapakshe

(159167J)

Degree of Master of Science in Construction Law and Dispute Resolution

Department of Building Economics

University of Moratuwa Sri Lanka

September 2019

SKILLS AND COMPETENCY REQUIREMENTS OF CONSTRUCTION PROFESSIONALS FOR EFFECTIVE DISPUTE MANAGEMENT IN CONSTRUCTION INDUSTRY

Rajapakshe Wasala Panditharathna Mudiyanselage Imashi Sasidya Rajapakshe

(159167J)

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

Department of Building Economics

University of Moratuwa Sri Lanka

September 2019

DECLARATION

Declaration, copyright statement and the statement of the supervisor

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 the 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).

Signature:	Date:	
The above candidate has carri	ed out research for the Masters under my supe	ervision.
Name of the supervisor:		
Signature of the supervisor:	Date:	

Abstract

Frequent disputes in construction projects are detrimental to the project performance which in turn demands effective dispute management efforts. Although construction professionals' involvement is highly envisaged in dispute management due to technicality and complexity involved and due to their contribution to generate disputes, such involvement is barred by essential competency and skill deficits of construction professionals. In view of that, this research is aimed at exploring the skills and competencies that are required to be acquired by Construction Professionals (CPs) in order to effectively manage disputes in the construction industry.

Accordingly, 'survey' was selected as the research strategy which is under the quantitative research approach. Questionnaires designed based on the knowledge gained through literature was distributed to construction professionals holding corporate memberships in the related Sri Lankan professional institutes. Data analysis was done through statistical t-tests and finally, a comparison was conducted using the questionnaire survey results and literature findings to accomplish the research aim.

With related to dispute avoidance (DA), which is one compartment of Dispute Management (DM), questionnaire findings identified twenty significant sources of disputes which are supported by construction professionals. Further, in order to avoid disputes in the construction industry, questionnaire findings identified significantly important thirteen Competencies and ten Skills. The comparison of above questionnaire findings and literature findings on availability of skills and competencies with CPs, revealed that the CPs are equipped with all necessary Dispute Avoidance Competencies while 'Team working skills', 'Ability to be flexible', 'Ability to acknowledge other's needs and interests' and 'Skill in recognising and responding to cultural differences' were identified as deficient Dispute Avoidance Skills for effective involvement in DA.

Questionnaire findings on Dispute Resolution (DR), which is the other compartment of DM, identified seven competencies and fifteen skills commonly important for all DR methods with high influence on all or particular DR method (s), one competency and nine skills commonly important for all DR methods but less influential and two competencies and three skills important for only certain types of DR methods. Comparison of such questionnaire findings with literature findings on availability of skills and competencies with CPs, unveiled the competency and skill areas which are deficient with each CP. Consequently, the research findings provide clear guidance on improving the Competency and Skill areas of each CP for strengthening their involvement in desired DR method (s) to a predetermined extent.

Thus, this research provides inputs to the professional institutes in Sri Lanka and to the construction professionals on improving competency and skill areas of CPs in order to achieve effective dispute management in Sri Lankan construction industry.

Key Words: Dispute Management, Dispute Avoidance, Dispute Resolution, Competency, Skill, Construction Professionals

ACKNOWLEDGEMENT

I would like to express my gratitude to my dissertation supervisor, Dr. (Ms.) Thanuja Ramachandra, for all the guidance, assistance and continuous encouragement provided to me.

I wish to deliver my gratefulness towards the head of the Department of Building Economics and the Programme Director of MSc / PG Diploma in Construction Law and Dispute Resolution, Dr. (Ms.) Yasangika Sandanayake, for the valuable guidance, encouragement and assistance provided.

I should deliver my gratefulness to all the lecturers for their guidance and assistance. Their direction throughout the process and clear knowledge on the subject are very much appreciated.

I extend my special appreciation to all respondents of my research. Without their assistance, this endeavor would not be a success.

I should express my appreciation to programme assistance and other non-academic staff members in the Department of Building Economics for their support.

It is also my duty to acknowledge to my seniors, batch mates and especially for my family members, for all their support and encouragement.

TABLE OF CONTENT

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Problem statement	4
1.3 Aim and objectives	4
1.4 Methodology	5
1.5 Scope and limitation	6
1.6 Chapter breakdown	6
2.0 LITERATURE REVIEW:	8
2.1 Introduction	8
2.2 Nature of construction disputes	8
2.3 Effects of disputes	10
2.4 Dispute Management (DM)	11
2.4.1 Dispute Avoidance (DA)	12
2.4.1.1 Sources of disputes	14
2.4.2 Dispute Resolution (DR)	17
2.5 Construction professionals' involvement in DM	19
2.5.1 Construction professionals' involvement in DA	20
2.5.2 Construction professionals' involvement in DR	21
2.6 Skills and competencies	22
2.7 Skills and competencies necessary for DM	23
2.7.1 Skills and competencies for DA	24
2.7.2 Skills and competencies for DR	26
2.7.2.1 Skills and competency requirements for Negotiation	27
2.7.2.2 Skills and competency requirements for Mediation / Conciliation.	28
2.7.2.3 Skills and competency requirements for Adjudication / DAB	30
2.8 Skills and competencies of construction professionals	35
2.9 Summary	38
3.0 RESEARCH METHODOLOGY	40
3.1 Introduction	40
3.2 Research Process	40

3.3 Research design 41
3.3.1 Research approach and research strategy
3.3.1.1 Reasoning behind the selection of survey approach
3.3.2 Research technique- data collection
3.3.2.1 Pilot survey
3.3.2.2 Questionnaire survey
3.3.3 Research technique- data analysis
3.3.3.1 Descriptive analysis
3.3.3.2 Single sample t-test
3.3.3.3 Comparison
3.4 Summary
4.0 DATA ANALYSIS AND FINDINGS49
4.1 Introduction
4.2 Respondents' information 49
4.2.1 Response rate
4.2.2 Composition of respondents according to current organisation 50
4.2.3. Composition of respondents according to qualified profession 50
4.2.4 Experience in the construction industry
4.2.5 Knowledge and experience in DR
4.2.6 Professionals involved in DR
4.3 Sources of disputes and construction professionals responsible for them 52
4.3.1 Sources of disputes
4.3.2 Construction professionals' involvement to dispute generation55
4.4 Dispute management skills and competencies
4.4.1 Dispute Avoidance Competencies (DACs)
4.4.2 Dispute Avoidance Skills (DASs)
4.4.3 Dispute Resolution Competencies (DRCs)
4.4.4 Dispute Resolution Skills (DRSs)
4.5 Summary
5.0 DISCUSSION
5.1 Introduction

5.2 Discussion of survey findings with corresponding literature	e findings66
5.2.1 Sources of disputes and construction professionals' res	sponsibility 66
5.2.2 Competencies and skills important for DM	67
5.3 Comparison of literature findings and questionnaire finding and competency requirements for DM	•
5.3.1 Dispute Avoidance	70
5. 3.2 Dispute Resolution	79
5.4 Summary	83
6.0 CONCLUSIONS AND RECOMMENDATIONS	84
6.1 Introduction	84
6.2 Conclusions	84
6.3 Recommendations	87
6.4 Limitations of the research	88
6.5 Further research	89
REFERENCES	90
APPENDIX A: SKILLS AND COMPETENCIES EXPECTE	ED FROM
CONSTRUCTION PROFESSIONALS	104
APPENDIX B: QUESTIONNAIRE	111

LIST OF FIGURES

Pag	ge
	0
Figure 2.1: Basic relationship between conflicts, claims and disputes	
Figure 2.2: Step by step process of dealing with disputes	
Figure 2.3: Skills and competencies required throughout negotiation process 2	28
Figure 2.4: Competencies expected from construction professionals in Sri Lankan	
construction industry	36
Figure 2.5: Skills expected from construction professionals in Sri Lankan	
construction industry3	37
Figure 3.1: Research process	
Figure 4.1: Overall response rate	19
Figure 4.2: Type of current organisation5	50
Figure 4.3: Distribution of respondent's profession	50
Figure 4.4: Distribution of experience of respondents5	51
Figure 4.5: Experience in DR methods5	51
Figure 4.6: Professional involvement in DR5	52
Figure 4.7: Professional involvement in dispute generation5	55
Figure 5.1: Rationale behind identifying DACs / DASs to be improved with CPs7	77

LIST OF TABLES

	Page
Table 2.1: Sources of disputes	15
Table 2.2: skills and competency requirements for DA	25
Table 2.3: Skills and Competency requirements for each DR method	32
Table 2.4: Summary of Skills and Competencies required for DR	34
Table 4.1: Significance of sources of disputes	53
Table 4.2: Construction professionals' responsibility for significant sources of	
disputes	56
Table 4.3: Competencies for dispute avoidance	58
Table 4.4: Skills for dispute avoidance	59
Table 4.5: Competencies for dispute resolution	61
Table 4.6: Skills for dispute resolution	63
Table 5.1: Comparison between DACs and competencies of CPs	71
Table 5.2: Comparison between DASs and competencies of CPs	73
Table 5.3: Comparison between causes of disputes and availability of DACs w	ith
CPs	75
Table 5.4: Comparison between causes of disputes and availability of DASs w	ith
CPs	76
Table 5.5: Comparison between DRCs and competencies of CPs	79

LIST OF ABBREVIATIONS

Abbreviation	Description
--------------	-------------

A Architect

ADR Alternative Dispute Resolution

C Conciliation

CP Construction Professional

DA Dispute Avoidance

DAB Dispute Adjudication Board

DAC Dispute Avoidance Competencies

DAS Dispute Avoidance Skills

DM Dispute Management

DR Dispute Resolution

DRC Dispute Resolution Competencies

DRS Dispute Resolution Skills

E Engineer

M Mediation

N Negotiation

QS Quantity Surveyor

SL Sri Lanka

LIST OF APPENDICES

Appendix	Description	Page
Appendix-A	Skills and competencies expected from construction professionals	104
Appendix-B	Questionnaire	111