Identify best strategic practices to Manage Supply Chain Operations in Construction Supply Chain of Hotel industry in Sri Lanka & Maldives

M. D. Chamil Asanka-159201K

Research submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in Supply Chain Management

Department of Transport and Logistics Management

University of Moratuwa Sri Lanka

March 2018

DECLARATION OF ORIGINALITY

I declare that this is my own work and this thesis/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.

Signature:	Date:
Signature	Bate.

M. D. Chamil Asanka

COPYRIGHT STATEMENT

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

Oate:
)

M. D. Chamil Asanka

STATEMENT OF THE SUPERVISOR

The	candidate	has	carried	out	research	for	the	degree	of	Master	of	Busines	S
Admi	nistration	in Su	ipply Ch	ain N	Manageme	nt of	ffere	d by the	Dej	partment	of	Transpor	t
and Logistics Management, University of Moratuwa under my supervision.													
Signa	ture of the	supe	rvisor:	•••••			Da	nte:	•••••		•••••		
Dr. Pı	radeepa Ja	yaratı	ne										

ABSTRACT

The identification and implementation of best strategic practices to manage construction supply chain have to be increased in the hotel industry of Sri Lanka and Maldives. To identify and implement these strategies, some attempts have been made initially to identify best practices and then establish a model for measuring construction cost per room before and after implementation of best practices and improving the operations efficiently in construction supply chain of the hotel industry in Sri Lanka and Maldives. Based on a review of the literature and an expert group discussion, an exclusive framework is developed in this paper, which consists of identification of best strategic practices, development of a model for calculation of construction cost per room, and development of supply chain map & concept to manage construction supply chain in both destinations. However, there are obvious deficiencies in these existing practices, models, and concepts. This highlights the need for a systematic framework for the assessment of construction cost per room in the hotel industry in order to analyze and make effective decisions. The proposed framework is evaluated through expert interviews and case studies and this framework provides a roadmap for the improvement of construction supply chain operation in the hotel industry of Sri Lanka and Maldives efficiently. It can be helped hotel organizations to position their current level of construction cost and identify key strategic practices for improvement in the future.

Contractors, being located at the vanguard of the construction supply chain, potentially offer the most effective means of improving construction industry cost performance. As a generalization, cost remains the most important criterion for construction clients; so its reduction (most often than not) represents improved client satisfaction.

Acknowledgments

It is my great pleasure to present my research report, which could not have been possible to fulfill, if not for those great people who were the backbone of my successful research. I wish to acknowledge them all!

First of all, I wish to thank my supervisor and research coordinator, Dr. Pradeepa Jayaratne and Dr. Mahinda Bandara respectively for their support, guidance and continued contribution of ideas and suggestions, which helped me to focus throughout the period of preparing this report.

A special thanks go to all the respondents; the individuals who freely gave their time, knowledge and expertise, to the proper completion and return of the research questionnaire which resulted not only in some fascinating insights but also some valuable contributions to the ideas in this thesis.

I am deeply indebted to my lecturers and the management of the University of Moratuwa and my batch mates, and my friends who supported me with suggestions, advice, and reviews of drafts of the papers throughout the study.

LIST OF ACRONYMS

MEP – Mechanical Electrical Plumbing

 $FF\&E-Fixed\ Furniture\ \&Equipments$

HOE – Hotel Operating Equipments

UNWTO –United Nation World Tourist Organisation

TABLE OF CONTENTS

				_					
			ORIGINALITY						
			MENT	3					
			E SUPERVISOR						
				5					
	\mathcal{C}			6					
			S	7					
				10					
1			NTRODUCTION	11					
	1.1.	_	round of the research	11					
			Introduction	11					
		1.1.2	3	12					
		1.1.3	Hotel industry in Sri Lanka.	13					
		1.1.4	Supply Chain Management in Tourism sector	14					
		1.1.5	Construction supply chain of Hotel industry in Sri Lanka & Maldives.	15					
	1.2	Proble	m Statement/Need for the study	13					
	1.3		ch Objectives	18					
	1.3		tion to study	18					
	1.5		rch Scope	19					
	1.6		Structure	19					
	1.7		plan	20					
2			ITERATURE REVIEW	20					
2	2.1		iction	20					
	2.1		uction Supply chain management	20					
	2.2		ently manage construction supply chain	20					
	2.3		y strategic practices to efficiently manage construction	22					
	2.4		chain	22					
			Integration of Supply Chain	22					
		2.4.1	* * *	26					
		2.4.2	Green Supply Chain Management	37					
	2.5		·	37 47					
3	2.5 Chapter Summary								
3	3.1		action	48 48					
	3.1			49					
	3.2	Research Design							
	3.3	3.3.1	Population	52					
		3.3.2	Sample	52					
	3.4		Sample: Collection:	53					
	3.4	3.4.1	Primary data sources.	53					
		3.4.2	Secondary data sources	54					
	3.5		Analysis	54					
	3.3	3.5.1	Developing SC Map the construction supply chain with	34					
		3.3.1	the process	54					
		3.5.2	Identification of strategic practices in construction	54					
		3.3.2	supply chain	54					
		3.5.3	Model development	55					
		3.5.4	The comparison of existing method and proposed model	56					
		3.5.5	Development of final concept	56					
	3.6		er Summary	56					
4			ESEARCH FINDINGS	57					
-r	\sim 11 \sim 1	TT1/ - 1/		57					

	4.1	Introduction	57
	4.2	Descriptive Analysis	57
	4.3	Map the supply chain of hotel industry in Sri Lanka & Maldives	61
		4.3.1 Map the supply chain of hotel industry in Sri Lanka	61
	4.4	Identification of strategic practices in construction supply chain	66
	4.5	Model development	
	Error!	Bookmark not defined.	
		4.5.1 Existing model	69
		4.5.2 Stimulation the model	70
	4.6	Comparison of construction cost per room based developed model	
		and with typical supply chain process	74
		4.6.1 Calculation of per room cost for project A in Sri Lanka	74
		4.6.2 Calculation of per room cost for project B in Maldives	75
	4.7	Development of final concept	76
		4.7.1 Application of new practices to Sri Lanka and Maldives	
		procurement concept	77
5	CONC	CLUSIONS AND FUTURE RESEARCH	79
	5.1	Conclusions.	79
	5.2	Future research Directions.	80
6	REFE	RENCE	81
ANN	EX		83
Anne	xure 02:	Mean value calculation of best practices under Integration	91
Anne	xure 03:	Mean value calculation of best practices under Communication and IT	92
Anne	xure 04:	Mean value calculation of best practices under Green Management	93
Anne	xure 05:	Construction cost "Project A"	94
Anne	xure 06 :	Construction cost "Project B"	99

LIST OF FIGURES

Figure 1: Time plan	20
Figure 2: Diagram showing BIM maturity map (adapted after Barlish and Sullivan 2012)	33
Figure 3: use of RFID, GPS, and GPRS technologies	36
Figure 4 : Count of respondents based on designation	57
Figure 5: Count of respondents based on number of years working in the industry	58
Figure 6 : Count of respondents based on number of employees	59
Figure 7 : Count of respondents based on functional area	59
Figure 8 : Count of respondents based on country of operation	60
Figure 9: Count of Respondents participate in decision making process	61
Figure 10 : Meta analysis	66
Figure 11: Best strategic practices in Integration	67
Figure 12: Best strategic practices in Communication and IT	68
Figure 13: Best strategic practices in Green Management	69
Figure 14: Expected cost reduction in Integration	70
Figure 15: Expected cost reduction in Communication and IT	71
Figure 16: Expected cost reduction in Green Management	71
Figure 17: Cost reduction affects for main cost components based on Integration	72
Figure 18: Cost reduction affects for main cost components based on Communication and I	T72
Figure 19: Cost reduction affects for main cost components based on Green Management	73