

**A FRAMEWORK TO ENHANCE VALUE
MANAGEMENT APPLICATION IN HOTEL
REFURBISHMENT PROJECTS IN SRI LANKA**

Biyanka Jayangani Ekanayake

(178018P)

Thesis submitted in partial fulfillment of the requirements of the requirements for the
degree Master of Science by Research

Department of Building Economics

University of Moratuwa

Sri Lanka

March 2019

DECLARATION

Declaration, Copyright Statement and the Statement of the Supervisor

“I declare that this is my own work and this thesis 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 thesis, 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 of the Student:

Date.....

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

Signature of the Supervisor:

Date.....

ABSTRACT

Refurbishment offers profound avenues for mitigating contemporary issues attributed to buildings improve facilities and prolong building life span. Nevertheless, refurbishment projects are characterised with uncertainty and complexity that result in the subvert of value for money. In this context, value management (VM) is endorsed as an approach to optimise value for money of construction projects. Enhancing VM application in refurbishment projects seems less, even though employing VM application in new building projects continues. This research therefore, sets out to develop a framework to enhance VM application in hotel refurbishment projects in Sri Lanka, since refurbishment projects that have employed VM are comparatively high in hotel sector. Data was collected through semi-structured interviews with 18 participants, documents review and observations. The manual and code based content analysis was used for data analysing. The study revealed that VM is employed in an ad-hoc manner, primarily as a cost reduction exercise. The VM workshops adopted for the case studies were derivatives of the standard SAVE 40-hour job plan and contractors' change proposal. However, this study proved that the ad-hoc application of VM could reduce the project cost on average by 6.81%. Nevertheless, the ad-hoc VM studies contributed to time overruns of 1 to 3 months. Although certain solutions were practiced to overcome these challenges, the full benefits of VM can be realised by enhancing VM application. Hence, the current study introduced a framework for enhancing VM application in hotel refurbishment projects in Sri Lanka by incorporating strategies on raising awareness, training and development on VM, choosing the appropriate timeframe to apply VM, choosing the appropriate composition for the VM team, choosing the appropriate VM job plan and enabling legal provisions and assistance from regulatory bodies. Further, the benefits that can be obtained from successful VM application were also presented.

Keywords: Hotels, Refurbishment Projects; Value for Money; Value Management

ACKNOWLEDGEMENT

Many have contributed for completing this research successfully. I like to convey my gratitude to all of them.

Firstly, I express my sincere gratitude to Dr. Y.G. Sandanayake, my primary supervisor and Head, Department of Building Economics for her constant supervision and support. Her exemplary guidance since my undergraduate days has directed me in the right path as a researcher. I am greatly indebted to my co-supervisor, Dr. Thanuja Ramachandra for her great mentoring and advices throughout the research journey. Her support and monitoring has always been a source of strength to enhance my research potential. I like to extend special thanks to Technical Officers Mr. A. Srithayannada Rajah and Mr. A.D. Waruna Vidya Adikari. I cannot forget the support received from my fellow researchers at the Research Room of Department of Building Economics.

I am also grateful to all the interviewees and subject matter experts who contributed for data collection of this research.

I wish to extend my sincere appreciation to Senate Research Committee of University of Moratuwa for providing funding to undertake this research under SRC/LT/2017/19.

I am thankful to my beloved parents and brother, for standing by my side throughout this journey. I am also grateful to my friends for their support.

TABLE OF CONTENTS

DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
TABLE OF FIGURES	viii
LIST OF TABLES	ix
ABBREVIATIONS	x
1 INTRODUCTION	1
1.1 Background	1
1.2 Problem statement.....	4
1.3 Aim and Objectives	5
1.4 Research Methodology	5
1.5 Scope and Limitations	6
1.6 Chapter Breakdown	6
1.7 Summary	8
2 LITERATURE REVIEW	10
2.1 Introduction.....	10
2.2 Refurbishment of Buildings.....	10
2.2.1 Definitions of Refurbishment	11
2.2.2 New Construction Projects vs Refurbishment Projects	12
2.2.3 Reasons for Undertaking Refurbishment.....	13
2.2.4 Timeframe to Undertake Refurbishment	13
2.2.5 Phases of a Refurbishment Project	14
2.2.6 Composition of the Refurbishment Project Team	16
2.2.7 Benefits of Refurbishment Projects	16
2.2.8 Challenges of Refurbishment Projects.....	18
2.3 Value Enhancement Efforts in Refurbishment Projects	21
2.4 The Concept of Value	21
2.5 Value in Construction Projects	22
2.6 Achieving Value for Money by Applying Value Management.....	23

2.7	The Concept of Value Management	24
2.7.1	Evolution of VM	25
2.7.2	Different Terminologies Associated with VM	26
2.7.3	Key Components of VM	29
2.7.4	The VM Job Plan	29
2.7.5	The Composition of VM Team	32
2.7.6	The Timeframe to Apply VM in a Construction Project	34
2.7.7	The Impact of the Procurement Method on the VM Study	35
2.7.8	Benefits of Employing VM in Construction Projects	35
2.7.9	Challenges of Employing VM in Construction Projects	36
2.8	Applications of VM in Construction Industry	37
2.9	Application of VM in Refurbishment Projects	39
2.10	Application of VM in Hotel Refurbishment Projects in Sri Lanka	40
2.11	Summary	41
3	RESEARCH METHODOLOGY	42
3.1	Introduction	42
3.2	Research Design	42
3.3	Research Approach	42
3.3.1	Quantitative Approach	42
3.3.2	Qualitative Approach	42
3.4	Research Process	43
3.4.1	Background Study and Literature Review	45
3.4.2	Case Studies Approach	45
3.4.3	Unit of Analysis	45
3.4.4	Cases Selection	45
3.4.5	Data Collection Methods	46
3.5	Data Analysis and Validation of Research Findings	47
3.6	Summary	48
4	ANALYSIS, RESEARCH FINDINGS AND DISCUSSION	49
4.1	Introduction	49
4.2	Overview of the Data Collection Methods	49
4.3	Views on the Terminology “Refurbishment”	53
4.4	Current Status of Hotel Refurbishment Projects in Sri Lanka	54

4.4.1	Reasons for Undertaking Refurbishment.....	55
4.4.2	Stages and Activities of a Refurbishment Project	56
4.5	Challenges in Hotel Refurbishment Projects in Sri Lanka	58
4.6	The Impacts of the Challenges in Achieving Value for Money	62
4.7	Application of VM in the Refurbishment Projects	63
4.7.1	Reasons for Applying VM.....	64
4.7.2	The Overview of the VM Job Plans.....	64
4.7.3	Overview of the VM Proposals and their Impacts.....	69
4.8	Challenges for VM Application in Hotel Refurbishment Projects	75
4.9	Measures for VM Application in Hotel Refurbishment Projects	77
4.10	Strategies to Enhance VM application in Hotel Refurbishment Projects	80
4.11	Benefits of Successful VM Application in Hotel Refurbishment Projects	84
4.12	Validation of Research Findings.....	85
4.13	The Summary of the Research Findings.....	86
4.14	The Framework to Enhance the VM Application in Hotel Refurbishment Projects in Sri Lanka	87
4.15	Discussion of the Research Findings	90
4.15.1	Building Refurbishment projects	90
4.15.2	Challenges in Refurbishment Projects	91
4.15.3	Application of VM in Refurbishment Projects	92
4.15.4	Challenges and Solutions for VM Application in Refurbishment Projects.....	93
4.15.5	Strategies to Enhance VM Application in Refurbishment Projects.....	93
4.16	Summary	95
5	CONCLUSIONS AND RECOMMENDATIONS.....	96
5.1	Introduction.....	96
5.2	Overview of the Research and Conclusions Drawn from the Study	96
5.3	Contribution to the Knowledge.....	98
5.4	Limitations of the Study	98
5.5	Recommendations for Industry Practitioners	99
5.6	Recommendations for Academic Research	99
5.7	Summary.....	99
	REFERENCES.....	100

ANNEXURE I- INTERVIEW GUIDELINE	115
ANNEXURE II- INTERVIEW TRANSCRIPT	121