

**ENHANCING THE QUALITY OF SEMI LUXURY
APARTMENT CONSTRUCTION PROCESS USING
TOTAL QUALITY MANAGEMENT TO ENSURE
CUSTOMER SATISFACTION**

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Degree of Master of Science

Department of Building Economics

University of Moratuwa

Sri Lanka

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Dissertation submitted in partial fulfilment of the requirement for the degree Master
of Science in Project Management

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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.

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Ranatunga R.M.S.D.B

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The above candidate has carried out research for the masters Dissertation under my supervision.

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Dr. (Mrs.) Sachie Gunatilake

Supervisor

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Date

ABSTRACT

ENHANCING THE QUALITY OF SEMI LUXURY APARTMENT CONSTRUCTION PROCESS USING TOTAL QUALITY MANAGEMENT TO ENSURE CUSTOMER SATISFACTION

Housing is one of the basic needs of people who lived all over the communities of the world. In order to fulfil this basic requirement different types of dwelling types have been introduced in the world depending on the cultural, regional, and climatic conditions. Under this various classifications of housing that one of the types called Apartment is a common living arrangement in the world as well as in the commercial and new cultural environment of Sri Lanka. The Sri Lankan apartment building industry has been divided into three main categories of super luxury, luxury, and semi-luxury.

Customer satisfaction is a very essential subject for every business environment everywhere as well as in Sri Lanka. Evolution of quality concept found that Total Quality Management (TQM) is one of the most developed quality concepts and is directly engaged with customer satisfaction. The aim of this research was therefore to investigate how to enhance the customer satisfaction of Sri Lankan semi-luxury apartment buildings by using the TQM concept. The literature review was conducted to review and identify the TQM concept, history of TQM, the definition of TQM and principles of TQM. A review of the literature found that there are 25 main factors and associate sub-factors of TQM that can affect customer satisfaction in the global construction Industry. According to the research aim observed, the necessity of further investigation of TQM implementation in Sri Lankan semi-luxury apartments is important. Preliminary interviews and questionnaire surveys were used as data collection techniques among the selected samples of contractors and consultant organizations in Sri Lanka. The results of questionnaire surveys were evaluated under the RII technique of data analysis.

As a result of the above data analysis and research, findings that identify 20 main factors and therein-related sub-factors, which are, affected customer satisfaction in semi-luxury apartment buildings in Sri Lanka. According to that, some of the main factors develop a process approach towards TQM, management commitment and leadership for TQM, development Education and Training, and development teams. Furthermore, under the same chapter, those main factors are categorized on a priority basis of two parameters of importance level and current practice performance level as per the RII results. According to the research findings, 20 main factors and therein sub factors identified as important to implement in aforesaid organizations to ensure customer satisfaction.

Finally, this research introduces a guideline that is to be implemented in the semi-luxury apartment construction industry to ensure customer satisfaction and it is advised and recommended to follow contractor or consultant organizations who are attached to the Sri Lankan Construction industry. Next, before the final, this research opens up the path to further research approach towards investigating the external customers' perspective on factors affecting customer satisfaction in apartment buildings and how to use TQM to enhance customer satisfaction in the new normal condition in apartment buildings.

Key Words: Construction industry, customer satisfaction, Semi-luxury apartments, TQM.

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TABLE OF CONTENTS

DECLARATION.....	i
ABSTRACT.....	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES.....	viii
LIST OF TABLES.....	ix
LIST OF ABBREVIATIONS.....	x
CHAPTER 1	1
1.0 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Statement.....	2
1.3 Aim	4
1.4 Objectives	4
1.5 Research Methodology	4
1.6 Scope and Limitations	6
1.7 Chapter Breakdown	6
CHAPTER 2	8
2.0 LITERATURE REVIEW	8
2.1 Introduction.....	8
2.2 Housing as a Basic Human Need.....	8
2.3 Classification of Housing.....	8
2.3.1 Definition of apartment and condominium	9
2.3.2 Characteristics of apartments	10
2.4 Apartments in Sri Lanka.....	10

2.4.1	Evolution of the Sri Lankan apartment industry	10
2.4.2	Demand for the Sri Lankan apartment industry	11
2.4.3	Classification of apartments in Sri Lanka	13
2.5	Introduction of Customer	15
2.6	Customer Satisfaction	15
2.6.1	What is customer satisfaction?	15
2.7	Importance of Customer Satisfaction in the Construction Industry	16
2.8	Customer Satisfaction in Residential Buildings	18
2.8.1	Quality factors affecting customer satisfaction in apartment buildings	18
2.9	The Concept of Quality	20
2.9.1	Definition of quality	20
2.9.2	Evolution of quality concepts	21
2.10	Total Quality Management	24
2.10.1	Definition of total quality management	25
2.10.2	History of total quality management	26
2.10.3	Total quality management and customer satisfaction	26
2.10.4	Principles of total quality management	28
2.11	Total Quality Management to Enhance the Customer Satisfaction in Construction Industry	31
2.11.1	Main factors affecting to implementation of TQM in the construction Industry	31
2.11.2	Associate sub-factors of TQM for the construction Industry	35
2.11.3	Barriers to implementation of TQM in the construction industry	41
2.12	Summary	42

CHAPTER 3	43
3.0 RESEARCH METHODOLOGY	43
3.1 Introduction.....	43
3.2 Research Design	43
3.3 Research Process.....	43
3.4 Research Approach	44
3.5 Research Strategy	45
3.6 Data Collection Techniques	45
3.6.1 Preliminary interviews	45
3.6.2 General information of interviewees	46
3.6.3 Questionnaires survey	47
3.6.4 Sample selection.....	47
3.6.5 General information of questionnaires survey	48
3.7 Data Analysis Techniques	51
3.7.1 Sample calculation	54
3.8 Summary.....	56
CHAPTER 4	57
4.0 DATA ANALYSIS AND RESEARCH FINDINGS	57
4.1 Introduction.....	57
4.2 Analysis of TQM's Main Factors that Enhance the Quality of the Semi-Luxury Apartment Construction Process to Ensure Customer Satisfaction.....	57
4.2.1 Response to preliminary interviews	57
4.3 Rate of Response to Questionnaire Survey.....	68
4.4 Level of Importance and Present Level of Practice of TQM Main Factors that Enhance the Quality of Semi-Luxury Apartment Construction Process to Ensure Customer Satisfaction: Questionnaire Survey Findings	70

4.4.1	Compare and contrast the results of the main factors and sub factors .	74
4.5	Proposing Guidelines to Enhance the Quality of the Semi-Luxury Apartment Construction Process Using TQM to Ensure Customer Satisfaction	87
4.6	Summary	89
CHAPTER 5		90
5.0	CONCLUSIONS AND RECOMMENDATIONS	90
5.1	Introduction	90
5.2	Overview of the Research	90
5.3	Conclusions	91
5.4	Recommendations	93
5.5	Further Research Directions	94
LIST OF REFERENCES		95
APPENDIXES		118
Annexure A – Preliminary Interview Guideline		118
Annexure B – Questionnaire Survey Guideline		128

LIST OF FIGURES

Figure 2.1: Rate of growth – Condominium projects in Sri Lanka.....	12
Figure 2.2: Customer satisfaction behaviour	16
Figure 2.3: Interrelationships between customer satisfaction and quality	17
Figure 2.4: The four stages of quality evolution	23
Figure 2.5: How TQM impacts customer satisfaction	27
Figure 2.6: Flowchart of TQM for customer satisfaction and creating profits	27
Figure 3.1: Research process for study	44
Figure 3.2: Questionnaire survey format arrangement of Main Six Factors.....	54
Figure 4.1: Graphical status of questionnaire response	69
Figure 4.2: Overall behaviour on RII results of main factors	73
Figure 4.3: Proposed guideline to enhance the quality of semi-luxury apartment construction process using TQM to ensure customer satisfaction	88

LIST OF TABLES

Table 2.1: Classification of Sri Lankan condominium types and related facilities....	13
Table 2.2: Quality factors affecting customer satisfaction in apartment buildings....	19
Table 2.3: Different perspectives of quality evolution.....	21
Table 2.4: Basic characteristics of four quality principles	23
Table 2.5: Basic principles of Total Quality Management.....	28
Table 2.6: Main factors of Total Quality Management, which are affecting the construction industry.....	32
Table 2.7: Main factors and therein sub-factors of Total Quality Management, which are affecting the construction industry	35
Table 3.1: Details of sample selection for the preliminary interview	47
Table 3.2: Classification of major sample selection.....	48
Table 3.3:Details of sample selection for questionnaire survey.....	49
Table 3.4: RII values calculation for Main Six Factor	55
Table 4.1: Interview results of main factors.....	58
Table 4.2: Reasons for negative response to the main factor	59
Table 4.3: Interview results and authors' reference of sub factors	60
Table 4.4: Responded main factors and sub-factors by interviewees and authors.....	65
Table 4.5: Status of questionnaire response	69
Table 4.6: Classification of RII results of main factors and sub factors	70

LIST OF ABBREVIATIONS

ASCE	American Society of Civil Engineers
CMA	Condominium Management Authority
CRHF	City of Richmond Hot Facts
GDP	Gross Domestic Production
ISO	International Organization for Standardization
JUSE	Japanese Union of Scientists and Engineers
KICEM	Korea Institute of Construction Engineering and Management
OCSAT	Online Customer Satisfaction Assessment Tool
OECD	Organisation for Economic Co-operation and Development
PDCA	Plan, Do, Check, Action
PPE	Personal Protective Equipment
QC	Quality Control
QFD	Quality Function Deployment
QS	Quantity Surveyor
R&D	Research and Development
RII	Relative Importance Index
SPC	Statistical Process Control
SQC	Statistical Quality Control
TQM	Total Quality Management
TSM	Total Safety Management
US	United States
USA	United States of America