

**BARRIERS ON SMALL SCALE CONTRACTORS TO  
ENTER AND SURVIVE COMPETITIVE  
CONSTRUCTION INDUSTRY IN SRI LANKA**

Gamini Ramawickrama

(128258E)

LIBRARY  
UNIVERSITY OF MORATUWA, SRI LANKA  
MORATUWA

Thesis/Dissertation submitted in partial fulfillment of the requirements  
for the degree MBA in Project Management

Department of Civil Engineering  
University of Moratuwa, Sri Lanka.

JULY 2016.

University of Moratuwa



TH3362

TH 3362

624"16"

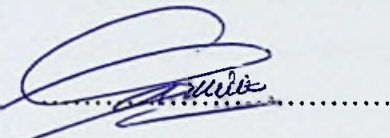
005.8(043)

TH 3362

## 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 thesis/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).

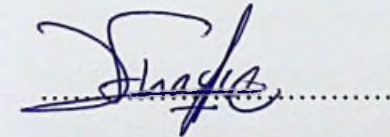


R.G. GAMINI.

17 / 03 / 2017

Date

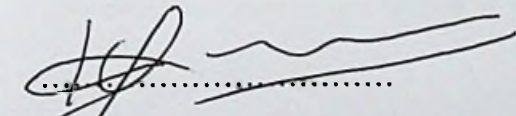
The above candidate has carried out research for the Masters Dissertation under my supervision.



Signature of the supervisor  
Dr Lesly Ekanayaka

17 / 03 / 2017

Date



Signature of the supervisor  
Prof Kennedy Gunawardena

17 / 03 / 2017

Date

## **Abstract**

Many challenges are facing by business managers when there are projects involved in their business in construction industry. Construction industry is not an exception when project comes in to their businesses as a part of the business activity. Many barriers are directly resulting to operations related and some are indirect marginal activities of SME level for its survival. While managing a SMEs, most of the time, challenges are addressed by the SMEs to ensure the success and survival. Many considerations are included in communication, workforce, safety, time constraints, and nature of the project, quality and time management. From a literature review six predominant problems currently facing the construction industry were identified. With the analysis of data and above constrains in the field of construction SMEs survival, it reveals that the clear relationship between employee turnover, application of new technology, government regulations, financing, contractor awareness of environmental issues, project management, knowledge transfer and survival of SME construction companies. The underlying aim of ranking these problems being towards developing a strategy for improving the performance of the construction sector and improving client satisfaction through the satisfaction of SME operations. Accordingly, research question is formulated to address the issue of “what are the existing situations of competitive construction industry in Sri Lanka and what are the barriers to enter and survive in competitive construction industry in Sri Lanka?” The opinions of Construction Company concerning the severity of these problems was obtained through a questionnaire survey. Findings reveals that, there are direct relationship between employee turnover, application of new technology, government regulations, financing, contractor awareness of environmental issues, project management, knowledge transfer and survival of SME construction companies. This was proved by using the fishbone model. With the findings of this research, it is not only applicable to locally, but also to address to mitigate issues related to survival of construction SMEs at global level.

**Keywords:** Construction SMEs, Survival of SMEs

## **Dedication**

I wish to dedicate my dissertation to my loving Wife Ishani Surangi, My Elder Son Pasindu Chamath, Daughter Laknavi Geethma and youngest son Manidu Lakmith on their support and dedication extended to me on engaging MBA study.

I have had to deviate from family time to concentrate my studies and eventually lost my time to spend with them leaving them with strain on weekends.

I anticipate all my hard work will finally keep them up towards brighten their life in all future endeavors.

## **Acknowledgement**

It's a great pleasure to complete my research/Dissertation successfully under the MBA in Project Management programme, conducted by University of Moratuwa. It is a privilege in my life to submit this report, which is an illustration of my effort and hard work to achieve the status of MBA holder in project management.

I take this opportunity to extend my sincere gratitude towards my research supervisors, Professor Kennedy Gunawardena and Senior Lecturer Dr. L.L. Ekanayake, who guided me in every aspect and event towards completion of the project successfully. I further wish to express my thanks to both of them who encouraged me to achieve the milestone as a life event. It is to be reminded the guidance and the helping hand extended by the academic staff for the research led by Prof. Ashoka Perera.

I acknowledge the guidance provided by the very capable lecturing panel of the MBA programme over the two years. It is to be reminded about the support extended by the academic and non-academic staff of University of Moratuwa, Library staff, for the assistance provided in completion of the MBA. My batch mates who helped me in numerous ways also remind with great respect to conclude the MBA study programme successfully.

I appreciate my staff members who helped me to gather required information from various contractors, ICTAD staff who helped me on release primary information on registered contractors with great respect.

R.G. GAMINI.

## Table of Contents

Declaration	I
Abstract	II
Dedication	III
Acknowledgement	IV
List of figures	VIII
List of tables'	ix
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the research	3
1.2 Small and Medium Scale Enterprises (SME)	4
1.3 Problems encounter on small scale contactors development.	5
1.4 Problem Justification	5
1.5 Objective of the research	6
1.7 Significance of the research	7
1.8 Limitation of the research	7
1.9 Organization and purview of the thesis	8
CHAPTER TWO	9
LITERATURE REVIEW	9
Barriers on small scale contractors to enter and survive competitive construction industry	9
2.1 Employee turnover	9
2.2 Application of new technology	14
2.3 Government regulations	15

2.4 Financing of construction projects.	17
2.5 Contractor awareness of environmental issues	20
2.6 Project management	22
2.7 Knowledge transfer	32
CHAPTER THREE	32
AREA OF THE RESEARCH	32
3.1 Construction processes	33
3.2 Design bid build	36
3.3 Material Management	37
3.4 Conflicts	38
CHAPTER FOUR	40
RESEARCH METHODOLOGY	40
4.1 Conceptual Framework	41
4.2 Hypothesis Development	41
4.3 Population and Sampling	42
4.4 Data Collection	42
4.4.1 Primary Data collection	43
4.4.2. Secondary data collection	43
4.6 Statistical Method	44
CHAPTER FIVE	45
DATA ANALYSIS	45

5.1 Introduction	45
5.2 Existing situation	45
5.3 Operationalization of Variables	46
5.3.1 Perspectives of Industrialists	46
5.4 Validation of Measurement Properties	47
5.5 Testing for Reliability	47
5.6 Factor Analysis	47
5.7.1 Employee turnover	47
5.7.2 Application of New technology	47
5.7.3 Government regulations	48
5.7.4 Financing	49
5.7.5 Contractor Awareness of environmental issues	49
5.7.6 Project management	50
5.7.7 Knowledge transfer	50
5.8 Normality Test	52
5.9 Hypothesis Testing and Statistical Data Analysis: P-Value	54
5.10. Hypothesis testing (With section one to five question)	54
5.9.1 Employee Turnover	54
5.9.2 New Technology	55
5.9.3 Government Regulation	56
5.9.4 Financing	57
5.9.5 Environmental Issues	57
5.9.6 Project management	58
5.9.7. Knowledge transfer	58
5.9.8 Correlation	59



**CHAPTER SIX CONCLUSION AND RECOMMENDATION** 65

6.1. Recommendations 65

6.2 Suggestion for Further Research 68

Reference 69

Appendices 1 73

**LIST OF FIGURES**

Figure 001: Normality Test 52

Figure 002: Fish borne model 64

## LIST OF TABLES

Table 001: Frequency of the Respondents	46
Table 002: KMO and Bartlett's Test	47
Table 003: Reliability Statistics	48
Table 004: KMO and Bartlett's Test	48
Table 005: Total Variance Explained	48
Table 006: Reliability Statistics	48
Table 007 : KMO and Bartlett's Test	48
Table 008 : Total Variance Explained	49
Table 009: Reliability Statistics	49
Table 010: KMO and Bartlett's Test	49
Table 011: Total Variance Explained	49
Table 012: Reliability Statistics	49
Table 013: KMO and Bartlett's Test	50
Table 014: Total Variance Explained	50
Table 015: Reliability Statistics	50
Table 016: KMO and Bartlett's Test	50
Table 017: Total Variance Explained	50
Table 018: Reliability Statistics	51
Table 019: KMO and Bartlett's Test	51
Table 020: Total Variance Explained	51
Table 021: Reliability Statistics	51
Table 022: KMO and Bartlett's Test	51
Table 023: Total Variance Explained	52
Table 024: Reliability Statistics	52



Table 025: Normality Test	52
Table 026: Test of Homogeneity of Variances	54
Table 027: ANOVA	55
Table 028: Test of Homogeneity of Variances	55
Table 029: ANOVA	55
Table 030: Test of Homogeneity of Variances	56
Table 031: ANOVA	56
Table 032: Test of Homogeneity of Variances	57
Table 033: ANOVA	57
Table 034: Test of Homogeneity of Variances	57
Table 035: ANOVA	58
Table 036: Test of Homogeneity of Variances	58
Table 037: ANOVA	58
Table 038: Test of Homogeneity of Variances	59
Table 039: ANOVA	59
Table 040: Correlations - Employee Turnover	60
Table 041: Correlations - New Technology	61
Table 042: Correlations - Government Regulation	61
Table 043: Correlations – Financing of contractors	62
Table 044: Correlations - Environmental Issues	62
Table 045: Correlations - Project management	63
Table 046: Correlations - Knowledge transfer	64