

**ANALYSIS OF KEY CAUSES OF DELAY IMPACTING
CONTRACTOR'S PROFIT IN ROAD CONSTRUCTION
PROJECTS IN SRI LANKA**

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Degree of Master of Science in Project Management

Department of Building Economics

University of Moratuwa

Sri Lanka

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Dissertation submitted in partial fulfillment of the requirements for the
Masters of Science Degree Programmes

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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 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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.....
Date

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

Name of the Supervisor: Senior Lecturer Ch. QS. P. A. P. V. D. S. Disaratna

.....
Signature of the supervisor

.....
Date

Dedication

This research is adoringly dedicated to my loving family; my parents and my devoted wife, who have been my constant source of inspiration all through my life. They have given me the drive and the discipline to tackle this task with utter enthusiasm and determination. Without their love and support this project would not be a reality

Abstract

Construction Industry can be identified as the most important sector in Sri Lanka that drives the economic growth to its potential value. It is also one of the most important pillars in achieving the country's vision and ability to create direct and indirect job/ career opportunities. In Sri Lankan construction industry "delays" are treated as a common and regular phenomenon dating throughout the recent history. Nevertheless, these so-called delays can negatively affect all the parties involved in the project by causing mitigations, cost overruns, loss of productivity/ revenue, and termination of contract. One of the major negative effect of delay is loss of profit of the contractors. This study was aimed to safeguard Sri Lankan contractor's profit through the mitigation of key causes of delay impacting on contractor's profit.

To gain a more vivid perspective, questionnaire surveys were distributed among experts who were involved in the field of construction in Sri Lanka. Under the categorization of delay causes, six groups were identified as the most potential to affect the contractor's profit and was subjected to questionnaire survey one. To gain a better perspective sixty-three causes of delays were identified under these six categories. From the outcome of questionnaire survey one, twenty-one factors were identified as key delay causes by the risk matrix in road construction projects in Sri Lanka. Through the findings, Time and cost overrun were the common effects of delays in construction projects. Due to the magnitude and frequency of these overruns, these have come to pose a significant financial risk and negative impact to the contractor's profit. The identified twenty-one causes of delays, were subjected to questionnaire survey two. The professionals who responded in survey one, imparted on the survey two, by identifying major delay causes impact the contractor's profit.

The research identified most effective methods to mitigate causes of delays in Road construction projects as frequent coordination between the parties involved, Effective project planning and scheduling, site management and supervision, frequent progress meeting and Accurate initial cost estimates.

Key Words: Causes of delays, Road construction, Risk matrix, Questionnaire Survey, Contractor's Profit.

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Also, my appreciation goes to all the respondents who took their time out of their busy schedules to respond to both of my questionnaire surveys, it was their service that put me on the right path to collect accurate findings and ultimately carry out a proper analysis on the subject.

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Table of Contents

Declaration	i
Dedication.....	ii
Abstract.....	iii
Acknowledgement	iv
Table of Contents	v
List of Figures.....	x
List of Tables	xi
List of Abbreviations	xii
List of Appendices.....	xiii
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background.....	1
1.2 Problem Statement	3
1.3 Aim and Objective of the Study	6
1.4 Methodology	6
1.5 Scope and Limitations of the Research.....	7
1.6 Research Organization	7
1.7 Summary	7
CHAPTER TWO.....	9
2.0 LITERATURE REVIEW	9
2.1 Introduction.....	9
2.2 Road Construction in Sri Lanka.....	9
2.3 Risk Assessment	10
2.4 Causes of Delay in Construction Industry	11

2.5 Causes of Delay in Road Construction Projects	13
2.6 Type of Construction Delay Causes	14
2.6.1 Compensable Delays	15
2.6.2 Non- Excusable Delays	15
2.6.3 Excusable Delays.....	15
2.6.4 Concurrent Delays	15
2.7 Effects of Delay	16
2.8 Cost Overruns in Construction Projects.....	17
2.9 Factors that Influence Construction Cost.....	18
2.10 Cost and Delay Relationship.....	18
2.11 Categorization of factors causing delay	20
2.12 Influences and Causes of Delay	25
2.13 Data Analysis	26
2.14 Mitigation of Delay in the Construction Projects.	26
2.15 Types of Claims due to Causes of Delay	27
2.16 Effects of Causes of Delay to the Contractor’s Profit	27
2.17 Deterrents to Delays.....	29
2.17.1 Breach of contract due to delay	29
2.17.2 Damage due to Delay.....	29
2.17.3 Conceptual framework.....	29
2.18 Minimizing the Causes of Delay in the Construction Project	29
2.19 Chapter Summary	31
CHAPTER THREE.....	32
3.0 METHODOLOGY	32
3.1 Introduction.....	32

3.2 Research Process.....	32
3.3 Research Strategy and Design	33
3.4 Research Philosophy	34
3.5 Research Approach	35
3.6 Research Technique	36
3.6.1 Data Collection Technique.....	36
3.7 Literature Review	37
3.7.1 Categorization Group of Delays	37
3.8 Questionnaire Survey.....	41
3.8.1 Questionnaire Design.....	41
3.9 Selection of the Sample	43
3.9.1 Non-Probability Samples.....	44
3.9.2 Advantages of Non-Probability Sampling.....	44
3.9.3 Disadvantages of Non-Probability Sampling	45
3.10 Data Analysis	45
3.11 Chapter Summary	47
CHAPTER FOUR	49
4.0 DATA ANALYSIS AND DISCUSSIONS	49
4. 1 Introduction.....	49
4.2 Data Collection	49
4.2.1 Respondents According to Their Dedicated Field.....	50
4.2.2 Position of Respondents	51
4.2.3 Years of Experience for the Organization	52
4.2.4 Number of Projects Implementations in the Last Five Years.....	52
4.2.5 Respondent's Years of Experience	53

4.3 Development of Risk Matrix for the Causes of Delay.....	54
4.3.1 Logic and Environment Group.....	55
4.3.2 Managerial Group.....	56
4.3.3 Monitoring and Controlling Group	58
4.3.4 Financial Group.....	60
4.3.5 Material, Plant, & Equipment Group	62
4.3.6 Human Resources	63
4.4. Effects of Construction Delays	65
4.5. Affected by “Loss of Profit” due to Major Causes of Delay in Company	65
4.6 Effect of Delay Causes to the Profit	66
4.7 Precaution for Minimizing the Causes of Delays	68
4.8 The Methods of Minimizing Construction Delays	68
4.9 Chapter Summary	69
CHAPTER FIVE	71
5.0. CONCLUSIONS AND RECOMMENDATIONS	71
5.1 Introduction.....	71
5.2 Conclusions.....	71
5.2.1 Identify the Causes of Delay in Road Construction projects in Sri Lanka	72
5.2.2 Develop a Risk Matrix to Identify the Key Delay Causes in Road Construction Projects in Sri Lanka.....	73
5.2.3 To Ranking the Effects due to Causes of Delays in Road Construction Projects.....	73
5.2.4 To Identify the Key Delay Causes Impacting Contractor’s Profit in Road Construction Projects in Sri Lanka	73

5.2.5 To identify the Methods of Mitigating Key Delay Causes Impacting the Contractor’s Profit in Road Construction Projects in Sri Lanka	74
5.3 Recommendations.....	74
5.3.1 Poor Labour Productivity	75
5.3.2 Monitoring and Controlling Issue	75
5.3.3 Decision Making	76
5.3.4 Coordination among the professionals	77
5.3.5 Maintaining Quality Standards:.....	77
5.3.6 Strategic Planning.....	78
5.3.7 Clear Information and Communication Channels.....	78
5.4 Further Research to be Carried out on the Subject	79
REFERENCE	80
Appendix 01	86
Questionnaire Survey 01.....	86
Appendix 02	97
Questionnaire Survey 02.....	97

List of Figures

Figure 2.1 Risk Management Process	11
Figure 3.1 Research Process	33
Figure 3.2 Nested research approach	34
Figure 3.3 Risk Matrix	47
Figure 4.1 Respondents Organization type	51
Figure 4.2 Position of Respondents	51
Figure 4.3 Years of Experience for the Organizations	52
Figure 4.4 Number of Projects Implementations in the last five years	53
Figure 4.5 Years of Experience in the Organization	53
Figure 4.6 Risk zones for delay causes under logic and environment group	56
Figure 4.7 Risk zones for delay causes under Managerial Group	58
Figure 4.8 Risk zones for delay causes under Monitoring and Controlling	60
Figure 4.9 Risk zones for delay causes under Financial Group	61
Figure 4.10 Risk zones for causes of delays under Financial Group	63
Figure 4.11 Risk zones for causes of delays under Human Resources	64
Figure 4.12 Affected by “loss of profit” due to major delay causes	66
Figure 4.13 Precautions taken to minimizing the delay causes	68

List of Tables

Table 2.1 Methods of Minimizing Construction Delay	30
Table 3.1 Research philosophies and data collection methods	34
Table 3.2 Classification of Causes of Delays	38
Table 3.3 Risk Metrix	46
Table 4.1 Responding percentages to questionnaire surveys	50
Table 4.2 Likert scale notation of indexes	54
Table 4.3 Risk matrix for delay causes under logic and environment group	55
Table 4.4 Risk matrix for delay causes under Managerial Group	56
Table 4.5 Risk matrix for delay causes under Monitoring and Controlling	59
Table 4.6 Risk matrix for delay causes under Financial Group	60
Table 4.7 Risk matrix for causes of delays under Materia, plant & Equipment	62
Table 4.8 Risk matrix for causes of delays under Human Resources	64
Table 4.9 Effects of Construction Delay causes in construction project	65
Table 4.10 Ranking of key delay causes affect Contractor's Profit	67
Table 4.11 Methods of minimizing construction delay causes	68

List of Abbreviations

ADB	- Asian Development Bank
AHP	- Analytical Hierarchy Process
CBSL	- Central Bank of Sri Lanka
DPMM	- Department of Project Management and Monitoring
EOT	- Extension of Time
GDP	- Gross Domestic Product
RDA	- Road Development Authority
RII	- Relevant Importance Index
RMP	- Risk Management Process
SL	- Sri Lanka
WB	- World Bank

List of Appendices

Appendix 01 Questionnaire survey 01

Appendix 02 Questionnaire survey 02