

**A STUDY ON APPLICABLE DELAY ANALYSIS
TECHNIQUES OF THE BUILDING
CONSTRUCTION INDUSTRY
IN SRI LANKA**

**MASTER OF SCIENCE
IN
CONSTRUCTION PROJECT MANAGEMENT**

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TECHNIQUES OF THE BUILDING
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IN SRI LANKA**

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“The dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfilment of the requirements for the Master of Science in Construction Project Management”

Department of Civil Engineering

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Sri Lanka

August 2019

DECLARATION

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university to the best of my knowledge and believe it does not contain any material previously published, written or orally communicated by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for inter library loans, and for the title and summary to be available to outside organizations.

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DEDICATION

Dedicated

To my beloved parents,

wife & kids

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ABBREVIATIONS

EOT	: Extension of Time
LD	: Liquidated Damages
SCL	: Society of Construction Law
PMBOK	: Project Management Body of Knowledge
US	: United State
TIA	: Time Impact Analysis
IPA	: Impact As-Planned
CAB	: Collapsed As-Built
CPM	: Critical Path Method
FIDIC	: Fedaration International Des Ingenieurs-Conseils

ABSTRACT

The construction industry in Sri Lanka are being implemented various standards to complete the projects in time to achieve satisfaction of stakeholders and to face the competitiveness over getting contracts in order to ensure their business sustainability. The successful completion of a project to an intended in time is not easy. Failure to complete the works is a breach of contract and normal remedy for breach is claim for damages. Extension of Time due to construction delays being a popular topic among researchers and many researches have been carried out covering different aspects of delays. However, the completion of project on time is somewhat unusual in the field of construction in Sri Lanka when considering complexity of civil engineering contracts and the tendencies for delays to occur.

This research makes a contribution by providing insights on the current status of project delay analysis practices and proposing ways as to how extension of time claim could be effectively analyze by the applicable techniques in Sri Lankan construction industry. The findings of the study disclose that the construction professionals in Sri Lanka are not conscious enough of the available sophisticated techniques for delay analysis. It is also established that the cost incurred for implementing proper delay analysis techniques, poor awareness about delay analysis techniques among construction professionals, unavailability of adequate records to adapt a proper analysis techniques and lack of experts in their project or organization are the major barriers for submitting proper extension of time claim.

Under this background recommendation were developed to improve an effective construction programme, a good record keeping at site level and awareness of delay analysis techniques to prepare for proper time extension claims.