

**OVERVIEW OF DISRUPTION CLAIM IN ROAD  
CONSTRUCTION INDUSTRY DURING LAST FIVE  
YEARS**

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University of Moratuwa  
Sri Lanka

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Dissertation submitted in partial fulfillment of the requirements for the degree Master  
of Science in Building Economics

Department of Building Economics

University of Moratuwa

Sri Lanka

May 2016

## 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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# Dedication.....



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To my beloved parents, Sister & Brothers

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## ABSTRACT

Sri Lankan construction industry has been increased dramatically during last decade, especially, road and highway construction is prominent among them. As per most of the project, it was observed that there were variations with anticipated work condition, plan with actual conditions. Sometimes, estimated project productivity could not be able to established due to various reasons. This is identified “Disruption events” which loses the Contractor’s money unnecessary. In this research, it was focused to identify sources of disruptions, record maintenance and usage of disruption claim analysis methods in construction industry.

Questionnaire survey was carried out to identify status of disruption claim in construction industry during last five years. A five point Likert scale where 1 represents ‘Not significant’ and 5 represents ‘Extremely significant’ was used at questionnaire survey to identify the significance level among three main aspects such as sources of disruption, records maintenance at site and usage of disruption claim analysis methods.

Overtime concurrent operation, additional quantities of work, delays, dilution of supervision, joint occupancy, fast track construction, quality of craftsman, quality assurance/quality control practice, labour wages, weather and economic activity in the area were highest significance of causing disruption event in construction industry while stacking of trades, rework of already installed work changes to the plans and specification, management control, site access, and rework/errors were least impact. Further, it was found out that record keeping at site was significantly maintained through payment certificate, labour time sheets and daily report. However, it was identified that there was deficiency record maintenance of records such as correspondence, change order log, separate cost account for specific change orders, and record of change orders caused by the owner even though those are important materials for substantiation of claim. According to the analysis, submission of disruption claims in construction industry with various types of disruption claim analysis methods was considerably lower level. Documentary evidence widely used methods of measured mile study, baseline productivity analysis and system dynamics modeling were least usage in industry. Mostly used method was total cost method which can be easily prepared at available data. Earned value analysis, comparison studies, industry based methods and modified cost methods were used comparatively lower level than the total cost method.

Eventually, Contractor suffers from disruptions events due to deficiency of contemporary records on hands. Therefore, it is recommended to establish one day before action plan, build specialized teams on particular work, independent team to grab the work norms and head office comments on project in order to answer disruptions early. Further, it is suggested to carry out further research to find out suitable method for record tracking system in construction industry.

**Key words:** Disruption, Disruption Claim methods, Construction, Sources of disruption

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## *List of Abbreviations*

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NLR	New Law Report
SLR	Sri Lanka Law Report
AER	All England Law Report
CIDA	The Construction Industry Development Authority
ICTAD	Institute for Construction Training and Development
SCL	Society of Construction Law
AACE	American Association of Cost Engineering
SD	System Dynamics



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