POTENTIAL OF IMPLEMENTING "WINDOW DELAY ANALYSIS" FOR ROAD PROJECTS IN SRI LANKA – CLAIMS CONSULTANTS' PERSPECTIVES

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Master of Science in Construction Law and Dispute Resolution

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Dissertation submitted in partial fulfilment of the requirements for the degree Master of Science in Construction Law and Dispute Resolution

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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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Mr. Vijitha Disaratna Date

Dissertation Supervisor

DEDICATION

“This dissertation is dedicated to my beloved mother & father for their unconditional love”

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ABSTRACT

"Potential of Implementing 'Window Delay Analysis' for Road Projects in Sri Lanka – Claims Consultants' Perspectives"

An increased number of disputes with regard to the additional times and payments in respect of the construction delay claims, are presently experienced by the road construction industry of Sri Lanka.

The additional payment and time entitled to a claimant in respect of a delay, is generally computed utilizing an appropriate Delay Analysis Technique (DAT), the application and the outcome of which may vary from one another.

Previous researchers have identified that the DAT namely "Window Delay Analysis Technique (WDAT)" was the most appropriate DAT that can be used for road construction projects in Sri Lanka, which was also the minimally used DAT out of several methods practiced in the country.

Thus, the identification of the potential of implementing such highly recommended WDAT for road construction projects in Sri Lanka was of paramount importance, which was set as the aim of this study, which will also be towards the improvement of the practice of construction delay analysis in the country.

In the view of above, the areas such as "benefits of WDAT", "constraining factors for the implementation of WDAT", and "studying the contemporary practice of delay analysis and willingness of the practitioners to undertake WDAT", were explored as research objectives.

A preliminary study carried out revealed that the awareness of construction community of the DATs was very low, which led the researcher to reach the Claims Consultants in Sri Lanka, who were supposed to be the most suitable resource persons on this subject area.

Accordingly, this research problem was approached through the interviewing of four selected leading construction claims consultants in Sri Lanka, and by reviewing their eight sets of delay analysis documentations.

WDAT was identified to be a versatile and practical approach of applying the delay analysis, rather than a primary method of delay analysis, which can be effectively applied in cases of complicated delay situations to resolve them successfully.

The findings of this research revealed that the non-existence of a direct contractual requirement for its implementation, inherent limitations of applicability of the method, specific and compromised requirements of the claimants, the limited resources (budgets) of the claimant, the unawareness and the inexperience of the analysts, additional effort required on the part of the analyst, absence of prior preparedness and awareness, indirect discouragement of the analyst, and reluctance of the analyst to do his best, were the factors constraining the implementation of WDAT in Sri Lanka.

The researcher ultimately realized that there is a potential for WDAT to be developed more as a separate area of expertise, which could co-exist as a support service to the general "construction claims consultancy services".

Key words: *Construction Delay Analysis, Delay Analysis Techniques, Window Delay Analysis, Road Construction Projects, Sri Lanka.*

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Abbreviation	Description
AACE	Association for the Advancement of Cost Engineering International
AACE RP	Association for the Advancement of Cost Engineering International Recommended Practice
ABCP	As Built Critical Path
ABCPA	As Built Critical Path Analysis
AHP	Analytic Hierarchy Process
APVAB	As Planned Vs As Built
ASCE	American Society of Civil Engineers
ASCII	American Standard Code for Information Interchange
CAB	Collapsed As Built
CPM	Critical Path Method
CSV	Comma Separated Values
CRE	Contractor's Risk Event
DA	Delay Analysis
DAT	Delay Analysis Technique
EOT	Extension of Time
ERE	Employer's Risk Event
IAP	Impacted As Planned
NE	Neutral Event
PDAT	Primary Delay Analysis Technique
RDA	Road Development Authority
SCLP	Delay & Disruption Protocol by Society of Construction Law
TIA	Time Impact Analysis
WDA	Windows Delay Analysis
WDAT	Windows Delay Analysis Technique