

**EVALUATION OF CRITICAL RISK FACTORS
(CRFs) AT THE TENDERING STAGE WHICH
IMPACT THE SUCCESSFUL COMPLETION OF
BUILDING CONSTRUCTION PROJECTS
IN SRI LANKA**

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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 of photocopying and inter library loans, and for the title and summary to be available to outside organizations.

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ABSTRACT

Construction industry is a competitive sector. Pricing the tender becomes more critical in order to get the contract being awarded. Most of the contracts are awarded to the lowest bidder after evaluating other required qualifications.

Contractors are compelled to analyse the risks and price appropriately to maximize the profits and avoid the unnecessary losses. Pricing for the risk in the tender is very essential. At the same time, the risk should be managed from the beginning of the project. It starts with the identification of the risk, assessing the risk, adequate risk responses etc.

This study intended to provide the most Critical Risk Factors, which affects the tendering process on the building construction projects in Sri Lanka. Hence, the contractor execute the tendering process productively.

In this research, the Delphi technique was used. The questionnaire survey was circulated within the experts in three rounds. Twenty five experts were selected based on the years of experience and their other qualifications. The respondents were such Senior Project Managers, Project Managers. Out of twenty five respondent, eighteen experts were responded to the questionnaire.

Through the literature review, thirty five Critical Risk Factors were identified. Those identified risk factors were evaluated through first Delphi survey and top fifteen risk factors were selected. After conducting the second Delphi round survey, Critical Risk Factors were narrowed down to five. Finally, the recognized top five risk factors were analysed by using Analytical Hierarchical Process (AHP) to prioritize the most Critical Risk Factors.

Since the analysis, experience and competence of the estimating team, experience of design team and contract document, past experience in similar projects, unforeseen site condition and shortage of skilled labour were found as the most Critical Risk Factors faced by the contractor during the tender process.

The findings of this research provide a basis to develop a framework which can be used to get prepared for the tender process of construction projects.

Key words: Critical Risk Factors, Risk Management, Tendering Risks, Successful Completion of Projects, Building Construction in Sri Lanka.

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LIST OF ABBREVIATIONS

Abbreviation	Description
CRF	Critical Risk Factors
PMI	Project Management Institute
DBB	Design Bid Build Procurement
DB	Design Builds Procurement
AR	Average Ranking
AHP	Analytic Hierarchy Process

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