CAUSES AND EFFECTS OF CONTRACTOR ORIENTED COST OVERRUNS IN BUILDING PROJECT

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

Prof.A.A.D.A.J.Perera. (Research Supervisor) Date.

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ABSTRACT

One of the main problems, faced by the construction industry is cost overrun. The final cost at the completion of the project exceeds over the initial cost, during the time of inception of the project. As a result of this, the projects have to be stopped or reduced their scopes, without fulfilling the total requirements of the end users. So, it is necessary to analyze the main causes for the cost overrun in construction projects.

After the end of thirty years of war and recent Tsunami, there are many reconstruction projects, especially in building sector undergoing in Sri Lanka. It is observed that the cost overrun at the end of the project, created unpleasant situations among the clients, consultants and contractors. The contractors are the most affected by the issue of cost overrun, because they have to wait for their payments for a certain period due to the unavailability of excess fund.

The aim of the research project is to identify the main factors contributing the cost overrun in the view of contractors and how they are distributed. The other focusing area of this study is to find out the steps to mitigate the cost overrun in future.

The preliminary data for this research have been collected through a literature review from Sri Lanka and worldwide. The main factors causing cost overrun listed from the literature review. The modified factors were obtained from the case studies and the opinions of some experts. A detailed questionnaire form has been prepared using the modified factors and circulated island wide. 77 questionnaires were received, out of 180 issued questionnaires and the response rate of 43%. The data analysis was carried out using the relative importance index method. The Five point priority scale was used to rank the significant factors according to the rating of respondents. In addition to that, an open ended question was added in the last part of the questionnaire form to get the views of the mitigation of cost overrun in future.

From the results, “Cost due to extra work” is identified as the top most influencing factor of cost overrun in overall basis. “Cost due to extra quantity”, “Changes in design”, “Changes in scope”, “Cost due to adverse weather” and “Price fluctuation of materials” are identified as the next five significant factors. The analysis was further carried out in relation with the project size and the type of the fund and almost similar results were obtained.

In the case of remedial measures of cost overrun, the respondents suggests that the adoption of proper planning and using efficient methods in estimate preparation are the best solution for avoiding the cost overrun in future. They further stress that the frequent changes in scope are to be avoided, in order to keep the contract value in control.
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ABBREVIATIONS

BOQ - Bill of Quantities
GOSL - Government of Sri Lanka
ICTAD - Institute for the Construction Training and Development
TEC - Total Estimated Cost
RII - Relative Importance Index
RIW - Relative Importance Weight
WA - Weighted Average