ABSTRACT

The present study has been made to suggest and develop some tools which will eventually be useful to the governments, financial institutions, owners and/or contractors for timely completion of large infrastructure projects at reasonable cost and of a specified quality.

The factors responsible for time overruns for traditional and BOT projects are identified through a postal survey. The relative importance and significance of these factors are investigated. The results were then compared with earlier studies been done internationally.

A hierarchical success model for identification of critical success factors is developed. Analysis of the data collected from experts is done by AHP and RII method separately. The results are compared with the result of previous studies. To validate the results agreement analysis has been made. The CSFs identified were found to be consistent with previous studies.

The effect of short construction period of a project on its profitability has been studied by varying the total construction period. The various types of risk encountered in BOT projects were analyzed from the perspective of various key participants.

A transparent, multi-attribute decision support system has been developed for addressing the pre-qualification issues such as the decision criteria analysis, weights assessment and decision model development. A best value procurement model is developed to select the private sector partner which provides a balance between the consideration of price and qualifications so as to provide the best value to public procurer. A procedure for sensitivity analysis has also been developed on the MS Excel.