

# **Abstract**

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## **RISK FACTORS IN CONSTRUCTION PROJECTS CASH-FLOW ANALYSIS**

This study presents a new methodology for net cash flow prediction. This methodology depends on applying risk factors that affect the cash flow process. The probabilistic S curves are used as an alternative of the Standard S curve and the traditional method that neglect the effect of risk and uncertainties. These risk factors have been determined through a questionnaire survey. This survey was conducted among the main three parties in construction industry contractors, consultants and owners. Two hundreds questionnaires were sent to these organization, only 60 responses were received within the accepted range of questionnaire response from 20- 30%. Through this survey, the most important cash flow risk factors were clearly identified. A simulation programs were used for generating the probabilistic S curves. A MS excel macro was used for a probabilistic cash in prediction. Probabilistic S curves provide a probability distribution of required cost and time to finish the project for any ed point at the project. The probabilistic cash flow prediction enables the users to accurately determine the project cash flow position. Keywords: Cash flow - risk factors -probabilistic – analysis – Construction management