

Simulation Model of Risk Based Contingency Costs Estimated in Industrial Building Projects With Design Build Contract

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Abstract

Design build is one of project completion method that accepts many risks due to integrated design and build activities into one process. In 5 years, 63% from 72 industrial projects with design build contract is experiencing cost overrun. One of the risk management strategies due to uncertainty is to include a contingency cost amount in the estimated cost. This study aims to model the calculation of risk-based contingency costs from each activity in 6 business process contractor design build, start from design, procurement, finance, controlling, build, and safety management. In otherhand, the highest risk response obtained is used as an additional activity that can respond the dominant risk in order to obtain a risk based business process. The method used in this research is monte carlo simulation.

Keywords

Design build, business process, contingency cost, simulation of monte carlo