

عنوان مقاله:

Identification and Prioritization of Road Project Risks using the Failure Modes and Effects Analysis Method in a Fuzzy Environment

محل انتشار:

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خلاصه مقاله:

A dynamic, efficient transportation network is an important index of country development and currently, major parts of infrastructure projects-related credits and budgets are allocated to road construction projects. Since several risks divert such projects, during their construction, from their main goals, proper risk identification and management are necessary to better implement infrastructure and road construction projects. As risks are changeable factors that differ from country/region to country/region, this research has reviewed the literature and used the experts' opinions to identify the most influential ones in Iran to eliminate or reduce their effects on the time and cost of road construction projects. To this end, a questionnaire was designed to identify the risks and prioritize them using the failure modes and effects analysis method in a fuzzy environment; defuzzification was done by MATLAB Software. Scores of the risks revealed that: ۱) inflation (increased material price), ۲) late financial provisions, ۳) deficiency, failure, or defect of equipment/machinery, and ۴) Maps and specification changes of more than ۲۵% with respect to the values specified in the general conditions of contract due to the employer's incorrect studies/estimation of the project, were identified as the most important risks of road construction projects.

کلمات کلیدی:

Road Projects, Risk Identification, Prioritization, Failure Modes and Effects Analysis Method, Fuzzy Environment

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