



Construction Project Risk Analysis Based on Fuzzy Analytical Hierarchy Process (F-AHP): A Literature Review

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ABSTRACT

In a construction project, it generally takes a long time and is complex in nature, giving rise to uncertainty which in turn leads to risks. The impact of risk can affect the cost, quality and timing of project implementation. At each stage of the project, various risks and uncertainties are inseparable. To reduce the adverse impact on the achievement of the functional objectives of a construction project, it is necessary to carry out a risk assessment. Risk is a logical combination of probability and impact and it is necessary to use fuzzy logic to model the inaccuracy and uncertainty of human thinking. This study aims to compare the results of Risk Assessment with the Fuzzy Analytical Hierarchy Process (F-AHP) method against the risk variables identified in the Risk Management Project. From 30 journals reviewed, it shows that technical risk is the biggest risk in a construction project.

Keywords:

Risk Assessment, Risk Management, Risk Analysis, Fuzzy AHP.