

## Portfolio Management for Construction Company during Covid-19 Using AHP Technique

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**Abstract :** In general, Covid-19 created many financial and non-financial damages to the economy and community. Level and severity of covid-19 as pandemic case varies over the region and due to different types of the projects. Covid-19 virus emerged as one of the most imperative risk management factors world-wide recently. Therefore, as part of portfolio management assessment, it is essential to evaluate severity of such risk on the project and program in portfolio management level to avoid any risky portfolio. Covid-19 appeared very effectively in South America, part of Europe and Middle East. Such pandemic infection affected the whole universe, due to lock down, interruption in supply chain management, health and safety requirements, transportations and commercial impacts. Therefore, this research proposes Analytical Hierarchy Process (AHP) to analyze and assess such pandemic case like Covid-19 and its impacts on the construction projects. The AHP technique uses four sub-criteria: Health and safety, commercial risk, completion risk and contractual risk to evaluate the project and program. The result will provide the decision makers with information which project has higher or lower risk in case of Covid-19 and pandemic scenario. Therefore, the decision makers can have most feasible solution based on effective weighted criteria for project selection within their portfolio to match with the organization's strategies.

**Keywords :** portfolio management, risk management, COVID-19, analytical hierarchy process technique

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