

An Assessment Model for Risk Management Capabilities in Infrastructure (RMC Model)

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Abstract

Infrastructure projects are crucial to the economy of any country, especially developing ones such as Egypt and most African countries. According to the World Bank, a 10 % rise in infrastructure assets directly increases GDP by up to 1 percentage point. There are many aspects to consider when dealing with infrastructure projects such as unique characteristics, complexity, risk, public safety, financial difficulty etc. The main issue is the contractor is burdened by and carries the risks involved in this type of project. The contractor's risk management capability (RMC) reflects his team's expertise of risk understanding and how he can manage those risks. Hence, proper assessment of RMC may contribute to the probability of achieving project objectives. In addition, assessment of the client's risk management capability (client risk sharing) can support the RMC. The objectives of this study are: (1) to identify appropriate indices to assess the RMC of the contractor's infrastructure project; (2) to develop appropriate weightings for each index; (3) to develop an RMC assessment model for infrastructure project contractors and (4) to assess the current overall RMC of infrastructure project contractors. The contractor risk management capabilities (RMC) are categorized in three categories: (1) risk identification and assessment approaches, (2) risk response approaches (3) risk control strategy. Each RMC in the three categories is assessed with respect to each project's objective including cost, duration, quality, scope and any additional objective according to the client, project characteristics. These objectives reflect the client's capacity and willingness to share the risk.

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