Ascertaining key risks in the construction projects from stakeholder and life cycle perspectives

Managing risks in construction projects has been recognized as a very important management process in order to achieve the project objectives in terms of time, cost, quality, safety and environmental sustainability. However, thus far most research has focused on some aspects of construction risk management rather than using a systematic and holistic approach to identify risks and analyze the likelihood of occurrence and impacts of the risks. This presentation aims to identify and analyze the risks associated with the development of construction projects from project stakeholder and life cycle perspectives. Based on a comprehensive assessment of the likelihood of occurrence and their impacts on various construction project objectives, this presentation identifies twenty major risk factors. This risks research is mainly related to (in ranking) contractors, clients and designers, with few related to government bodies, subcontractors/suppliers and external issues. Among them, tight project schedule is recognized to influence all project objectives extremely, whereas design variations, excessive approval procedures in administrative government departments, high performance/quality expectation, unsuitable construction program planning, as well as variations of construction program are deemed to impact at least four aspects of project objectives. This research also found that these risks spread through the whole project life cycle and many risks occur at more than one phase, with the construction stage as the most risky phase, followed by the feasibility stage. This research would conclude that clients, designers and government bodies must work cooperatively from the feasibility phase onwards to address potential risks in time, and contractors and subcontractors with robust construction and management knowledge must be employed early to make sound preparation for carrying out safe, efficient and quality construction activities.

Biography

M Manikandan is the Sr. Structural Engineer at Gulf Consult, Kuwait with responsibility for designing and construction consultation of the tall buildings, colleges, shopping complexes, multi-storied car parks, hospitals, bridges and deep underground structures. Prior to joining Gulf Consult-Kuwait, he has worked as Structural Engineer at several companies, including RECAFCO-Kuwait, Saeed Hadi Al Doosary Est, Saudi Arabia, where he has completed many precast structures and treatment plants including the deep underground structures with heavy equipment. He is pursuing PhD in Risk Management in International Construction Projects as an External Part-time Researcher with Vels University Chennai, India. He received Civil Engineering Degree from Kamraj University Madurai, India in April 2000 and MBA in Project Management from Sikkim Manipal University, India in 2012.

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