

Decision-Making Tool for Planning the Construction of Infrastructure Projects

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Abstract : The aim of this paper is to investigate the key drivers in planning the construction phase for infrastructure projects to reduce project delays. To achieve this aim, the research conducted three case studies using semi-structured and unstructured interviews (n=36). The results conclude that a lack of modularisation awareness is among the key factors attributed to project delays. The current emotive and ill-informed approach to decision-making, coupled with the lack of knowledge regarding appropriate construction method selection, prevents the potential benefits of modularisation being fully realised. To assist with decision-making for the best construction method, the research presents project management tools to help decision makers to choose the most appropriate construction approach through optimising the use of modularisation in EC. A decision-making checklist and diagram are presented in this paper. These checklist tools and diagrams assist the project team in determining the best construction method, taking into consideration the module type.

Keywords : infrastructure, modularization, decision support, decision-making

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