Development of a procurement decision support system to enhance construction project delivery – From claims management perspective

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Abstract

The passive use of the most convenient, rather than the most appropriate procurement strategy has led to the failure of many construction projects. The result of these inappropriate procurement decisions have been numerous contract claims emanating at the project execution stage leading to time over-run, cost over-run and project delays. When these claims are not carefully managed, it often degenerates to arbitration, mediation, litigation and in some cases outright project abandonment. The research developed a decision support system for selecting the most appropriate procurement strategy to enhance current industry practice. This study is based on an underpinning positivism research paradigm which relates to the impact of procurement strategy decisions on construction project delivery. The research adopted both epistemological (theory) and ontological (practice) philosophical stance in developing a procurement decision advisory system. This was achieved by both extensive literature search and knowledge elicitation from industry experts on current industry practices. Furthermore, a validation survey was carried out based on 32 case studies of recently completed construction projects which revealed that implementation of the proposed decision support system could enhance the successful delivery of construction projects. The procurement decision support system is based on robust theoretical framework and reality in practice.

Keywords
Procurement Strategy, Decision Support System, Construction Project, Claims Management.

Biography
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