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An Effective Approach to Knowledge Capture in Whole Life Costing in Constructions Project

Authors : Ndibarafinia Young Tobin, Simon Burnett

Abstract : In spite of the benefits of implementing whole life costing technique as a valuable approach for comparing alternative building designs allowing operational cost benefits to be evaluated against any initial cost increases and also as part of procurement in the construction industry, its adoption has been relatively slow due to the lack of tangible evidence, 'know-how' skills and knowledge of the practice, i.e. the lack of professionals in many establishments with knowledge and training on the use of whole life costing technique, this situation is compounded by the absence of available data on whole life costing from relevant projects, lack of data collection mechanisms and so on. This has proved to be very challenging to those who showed some willingness to employ the technique in a construction project. The knowledge generated from a project can be considered as best practices learned on how to carry out tasks in a more efficient way, or some negative lessons learned which have led to losses and slowed down the progress of the project and performance. Knowledge management in whole life costing practice can enhance whole life costing analysis execution in a construction project, as lessons learned from one project can be carried on to future projects, resulting in continuous improvement, providing knowledge that can be used in the operation and maintenance phases of an assets life span. Purpose: The purpose of this paper is to report an effective approach which can be utilised in capturing knowledge in whole life costing practice in a construction project. Design/methodology/approach: An extensive literature review was first conducted on the concept of knowledge management and whole life costing. This was followed by a semi-structured interview to explore the existing and good practice knowledge management in whole life costing practice in a construction project. The data gathered from the semi-structured interview was analyzed using content analysis and used to structure an effective knowledge capturing approach. Findings: From the results obtained in the study, it shows that the practice of project review is the common method used in the capturing of knowledge and should be undertaken in an organized and accurate manner, and results should be presented in the form of instructions or in a checklist format, forming short and precise insights. The approach developed advised that irrespective of how effective the approach to knowledge capture, the absence of an environment for sharing knowledge, would render the approach ineffective. Open culture and resources are critical for providing a knowledge sharing setting, and leadership has to sustain whole life costing knowledge capture, giving full support for its implementation. The knowledge capturing approach has been evaluated by practitioners who are experts in the area of whole life costing practice. The results have indicated that the approach to knowledge capture is suitable and efficient.

Keywords : whole life costing, knowledge capture, project review, construction industry, knowledge management
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