

Jigapruk Suttara 2011: Development of Effective Knowledge Management Process for Thai Construction Project. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Assistant Professor Piyanut Wethayavivorn, D.Eng. 77 pages.

This research aims to 1) Study about knowledge management process in construction projects in the past. 2) Investigate current knowledge management practice in construction projects. This objective employed case study approach through 3 cases as structural design, consulting and Contractor firm. All firms have more than 25 years of successful experiences and leading in Thai construction industry. The data was collected through interviewed firm's executive and observed firm' document. 3) Develop an effective knowledge management process for Thai construction project. Focusing on capturing tacit knowledge of key individuals from past projects and convert to explicit knowledge which can be distributed and effectively applied in forthcoming construction projects. This objective employed action research approach. The data was collected through construction projects of 3 case studies as above. The result reveals that the effective knowledge management process for Thai construction project should consist of 3 stages. The first stage is the process of reviewing and identifying the key issues from project's execution, this stage makes it possible to capture tacit knowledge. The second stage is the process of distilling tacit knowledge into explicit knowledge and third stage is embedding that knowledge into the knowledge storages or knowledge containers according to the firm's mission such as: design specification, construction management procedure and forms, organization policy, rules, and culture. Once the knowledge is systematically transferred to the well-structured storages, then it can be accumulated and utilized effectively in the future practice to increase the firm's competitive advantage.

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Thesis Advisor's signature