

UNIVERSITI TEKNOLOGI MARA

**PROJECT MANAGER'S
COMPETENCY FRAMEWORK IN
MANAGING INDUSTRIALISED
BUILDING SYSTEM (IBS)
CONSTRUCTION PROJECT**

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Thesis submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy

Faculty of Architecture, Planning and Surveying

January 2017

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I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

Industrialised Building System (IBS) has been introduced to promote a systematic construction process. The application of IBS offers numerous benefits such as cost and time reduction and enhancing construction quality and safety. In the Malaysian construction industry, IBS application was also expected to minimise the dependency on unskilled foreign labour. There are various issues associated with IBS construction projects such as poor quality building and construction delay, and thus, a qualified and experienced organisation led by a competent project manager is required to overcome the issues. The project manager who possesses the necessary competencies may lead the project to success and achieve its objectives. The objectives of this research are to investigate the competencies required for a project manager in managing IBS construction project; to determine the competencies required within the project management phases; to analyse the most significant competencies within the project management phases and to develop a competency framework for a project manager in managing the IBS construction project. This research is adopting a mixed method approach. A qualitative approach of semi-structured interviews was carried out to fourteen interviewees consisting of project managers of construction organisations, managers of installer companies and managers of manufacturing companies. Fifty competencies have been identified during the semi-structured interviews and categorised into project management phases. The identified competencies were then re-evaluated through a quantitative approach to determine the most significant competencies for a project manager. A questionnaire survey was used to measure the significant level of competencies for the project manager. SPSS version 20 was used to analyse the data from the questionnaire survey. The competencies were ranked by using Mean Analysis and Relative Importance Index (RII). Pareto Analysis was then used to cut-off the most significant competencies. Thirty-five competencies out of fifty listed competencies were identified as the most significant competencies formed the primary competencies section; meanwhile, another fifteen competencies established the secondary competencies section in the framework. The framework of project manager's competency in managing IBS construction project (PM-IBS Competency Framework) were validated by panels represented from the construction organisation, Association of Construction Project Manager (ACPM), Public Work Department (PWD), Malaysian Asset and Project Management Association (MAPMA), Construction Industry Development Board (CIDB) and project management trainer.

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