UNIVERSITI TEKNOLOGI MARA

MALAYSIAN CONTRACTORS' PERCEPTION TOWARDS BUILDING INFORMATION MODELING (BIM) APPLICATIONS

ZAFIKHA AIDA BIDIN

Dissertation submitted in partial fulfilment of the requirements for the degree of

Master of Science (MSc.)

Integrated Construction Project Management

Faculty of Architecture, Planning & Surveying

January 2015

AUTHOR'S DECLARATION

I declare that the work in this dissertation 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 topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

In the event that my dissertation be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

Name of Candidate	:	Zafikha Aida Binti Bidin
Candidate I.D. No.	:	2013646878
Programme	:	Master of Science (Integrated Construction Project Management)
Faculty	:	Architecture, Planning & Surveying
Thesis Title	:	Malaysian Contractors' Perception towards Building Information Modeling (BIM) Applications
Signature of Candidate:		.....
Date	:	January 2015

ABSTRACT

Malaysian construction industry is always involved in project complexities difficulties, need of achieving faster results and slower in the adoption of technology. Building Information Modeling (BIM) is an object base technology and a set of tools which consists process of generating, storing, managing, exchanging and sharing building information among construction project stakeholders which enhance the productivity of project requirements and output. Despite the fact that BIM was firstly developed with a focal point on the design world, it has become widely noticeable and increase good turn among contractors. The aim of this study is to discover Building Information Modeling (BIM) application in contractor scope of works. Literature review and survey was carried out to identify the barriers and issues of BIM, construction project processes that involved BIM implementation as well as its benefits and success strategies towards engagement of construction stakeholders in BIM application. The survey was carried out among G7 Contractors in Klang Valley, Selangor. With the results of 51 respondents who participate in the survey, findings from quantitative and qualitative questionnaire reveal that the barriers and issues of BIM are contractor's resist to change, lack of knowledge and BIM perceived costs. As for the issues of BIM four (4) general issues such as lack of interoperability, lack in standards for model integration and management, do not have technology in terms of hardware and software and lack of determination of ownership on BIM tools are identified. BIM implementation during construction stage can benefits in terms of coordination, collaboration, improves communication and sharing information among construction practitioners. Moreover, BIM can improve accuracy in term of cost and reduce waste of rework. In order to encourage the contractors in implementation of BIM in their practices, five (5) success strategies on BIM were identified. These strategies can increase the quality of Malaysian construction projects as well as improve image of the industry. Everyone efforts are counted in order for BIM to be widely used in Malaysian construction projects especially among contractors.

TABLE OF CONTENTS