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THE IMPACTS OF BUILDING INFORMATION MODELLING (BIM) ON THE FUTURE ROLES OF QUANTITY SURVEYORS

Final Project submitted in partial fulfilment
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ABSTRACT

The construction industry is widely acknowledged as unique and conservative. Building Information Modeling (BIM) systems have the potential to revolutionize current practices and to automate the measurement of quantities from construction drawings. However, there are fears that such developments could threaten the viability of the quantity surveying profession. This study explores the relationship between BIM systems and the roles of quantity surveyors in the construction industry. It is argued that BIM challenges the traditional roles of quantity surveyors and their relevance to the construction industry. Thus, this research aims to identify the viability of quantity surveying profession while using BIM. In addition, the objectives of this research are to identify the impact of BIM to the quantity surveyors future roles, to determine the challenges faced by QS consultants when using BIM in their projects and to recommend the appropriate actions by quantity surveyors to stay relevant in the construction industry. The methodologies used for this research is a quantitative method through questionnaires survey among the QS consultants companies that currently using BIM application. A few questionnaires were distributed to the quantity surveyors who had experienced in using BIM and their responds had been recorded. The data collected from questionnaires survey were then interpreted by using Statistical Package Social Science (SPSS) version 25.

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CHAPTER 1
INTRODUCTION

1.1 BACKGROUND OF STUDY

Building Information Modelling (BIM) was first mentioned in Malaysia during a two-day infrastructure and construction Asia Building Information Modelling and Sustainable Architecture Conference in 2009 (Ismail, 2014). This conference prompted the paradigm shift of (BIM) industry-wide. The pace of BIM adoption in the industry started to increase due to awareness through conferences and seminars (Ismail, 2014).

BIM is a new approach to manage the life cycle activities of a construction project, which consists of project design, construction and facility management (Eastman, Teicholz, Sacks and Liston, 2011). The use of BIM in managing construction project life cycle has been in place since 1970 and its implementation has become more widespread in the construction industry for producing data-rich models of buildings and structures (Wong, A, Wong, F and Nadeem, 2009; Ahmad Latiffi, Kasim and Fathi, 2013; Barati, Charehzehi and Preece, 2013). BIM had been used in many countries such as America, Australia, Denmark, Norway, Finland and Singapore (Wong *et al.*, 2009; Ahmad Latiffi *et al.*, 2013; Furneaux and Kivit, 2008).

In Malaysia, BIM had been introduced by the Public Works Department (PWD) since early 2007 (Ahmad Latiffi *et al.*, 2013). The exploration of BIM by PWD had been supported by the establishment of a BIM Committee within PWD. The initial purpose was to identify a suitable BIM platform that could be used by PWD. The Committee proposed to the Information Technology Department to use Autodesk as one of the BIM tools (Ahmad Latiffi *et al.*, 2013). Subsequently, the installation of the BIM tool started in PWD at the end of 2010, followed by the training in using the tool in early 2011 (JKR, 2013).