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THE CHALLENGES IN THE IMPLEMENTATION OF BIM FOR QUANTITY SURVEYORS

Final Project submitted in partial fulfilment

of the requirement for the award of

Bachelor of Quantity Surveying (Honours)

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SEMESTER: OCTOBER 2020 – FEBRUARY 2021

ABSTRACT

Building Information Modelling (BIM) is not a new thing in the AEC industry. It has been long introduced and being applied. Slowly but surely it is replacing the old traditional way of work in the construction industry. However, even though BIM had already been introduced in Malaysia construction industry for some time, the implementation is quite slow. The same goes among Quantity Surveyors. Somehow Quantity Surveyors still using traditional method throughout their works. This feels like a loss as there are already many studies exploring the advantages of BIM for Quantity Surveyors when compared to traditional method that Quantity Surveyors has been using all along.

This study has been conducted among Quantity Surveyors in Perak. The aim of the research is to identify the best solution to the challenges in implementing BIM for Quantity Surveyors. The objectives of this research are i) To identify the challenges in the implementation of BIM for quantity surveyors ii) To identify the challenges in implementing BIM as a syllabus for Quantity Surveying course in universities iii) To investigate the method to overcome these challenges.

The findings show that the biggest challenge for Quantity Surveyor to implement BIM is the high cost needed. The cost includes the installation of hardware and software and even the price of personnel training. The challenge in implementing BIM as syllabus for Quantity Surveying course is due to the lack of skilled personnel. The best solution extracted from the study is by providing funds for universities for them to implement BIM as a syllabus. This could help in implementing BIM as a syllabus while at the same time increasing the number of skilled personnel in BIM after the students graduated.

Keyword: BIM, education, implement, QS, problems

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful.

First of all, thanks to Allah S.W.T for giving me the strength and determination to conduct and finish this research. The strength that helped me in getting through the obstacle that I faced throughout the research which consists of many kind and types.

My gratitude also to my dedicated supervisor for giving me guidance in conducting this research. Thank you for being patience with my inability and weakness throughout the research which in the end help me in finishing this research.

Not to mention, gratitude for my family members in giving me their support in my study. They are the one who gave the boost I needed to push myself to continue giving my best in finishing this research. They also give me the moral support I needed when I am feeling down and low. They also helped me financially throughout conducting the research.

Finally, I would like to thanks for any individual or groups who whether directly or indirectly helped me in finishing this research and their willingness in contributing to this research.

Thank you.

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CHAPTER 1

INTRODUCTION

1.1 RESEARCH BACKGROUND

Construction industry is deemed to be one of the most important industry in a country. This is because the nature of the industry itself which linked to various other industries (Khan, Liew and Ghazali, 2014). Not to mention, this industry also built upon thousands of workers which consists of contractors, architects, surveyors, engineers and labors (Mustafa Kamal *et al.*, 2012).

As we know, quantity surveyors are one of the key players in construction industry. They hold many important tasks throughout a construction project and one of the tasks is taking measurements or what some call as quantity take-off (Panojan, Perera and Abeydeera, 2017). Back in the days, quantity take-off is done manually. This is done by using 2D documents prepared by hands or CAD (Monteiro and Martins, 2013). But now, we have new ways of taking-off which by using Building Information Modelling (BIM) (Zainon *et al.*, 2018). However, Zainon *et al.*, (2018) also stated that Malaysia is still left behind in implementing BIM. This means that most of Quantity Surveyors still depend on the use of traditional quantity take-off method.

1.2 PROBLEM STATEMENT

In construction, Quantity Take-off is one of the main process that need to be done before any other works can follow through (Monteiro and Martins, 2013). It has