CENTRE OF STUDIES FOR QUANTITY SURVEYING

FACULTY OF ARCHITECTURE, PLANNING & SURVEYING

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SARAWAK

THE ADOPTION OF 5D BUILDING INFORMATION MODELLING FOR QUANTITY SURVEYORS TOWARDS BETTER PRODUCTIVITY

Final Project submitted in partial fulfilment of the requirement for the award of Bachelor of Quantity Surveying (Honours)

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AUTHOR'S DECLARATION

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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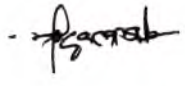
Signature of Student	:	
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ABSTRACT

The adoption of Building Information Modelling (BIM) is widely spread in construction industry. BIM application has the potential to revolutionize the quantity surveying practices. BIM is a current software that had been used by the consultant teams to carry out their tasks. The concept known as 5D BIM, which ultimately concerns the addition of the cost aspect to objects in the BIM model, has the potential for quantity surveyors (QS) to improve their working flows and to improve the quality of the services provided by BIM. The aim of this paper is to promote 5D Building Information Modelling (BIM) among quantity surveyors in construction industry towards better productivity. In order to achieve the aim, this paper would focus on to investigate the awareness of 5D BIM in improving Quantity Surveyors productivity, the study of the application and the importance of the 5D BIM and to identify the suitable ways to promote 5D BIM towards Quantity Surveying practices. Questionnaires were emailed to the respondents from various companies. The sample was limited to Quantity Surveyors in Kuching, Sarawak. The questionnaires were analysed using SPSS. The findings show that 5D BIM offers QS numerous advantages over traditional methods, particularly through improved visualization and performance. Such potential benefits were only modestly realized as currently practiced because of a variety of obstacles to 5D BIM implementation. These obstacles have been mainly linked to the incomplete BIM design, a lack of electronic measurement standards, legal issues, and a lack of government support in the BIM model. As a result, the application of 5D BIM seems limited, with professional quantity surveyors still relying heavily on traditional methods. Nevertheless, there was good evidence that the implementation of 5D BIM would gain these advantages further in the future.

Keywords: 5D BIM, BIM, Construction industry, Cost management, Quantity Surveying practices

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This chapter will explain the background and the aim of this research. It also will state the objectives, the scope, and the methodology of the research. Finally, it also will explain in brief the contents of each chapter

1.1 BACKGROUND

The adoption of Building Information Modelling (BIM) is widely spread in construction industry. BIM application has the potential to revolutionize the quantity surveying practices. BIM is a current software that had been used by the consultant teams to carry out their tasks. BIM software do beneficial towards quantity surveyors. BIM software could help to reduce the tasks that need to be done by Quantity Surveyors'. There are more than 3 type of BIM which is involve such as 3D which focus on the modelling, 4D which focus on the time management, 5D will focus on the cost management, 6D is about the as-built operation. While this study will focus on the adoption of 5D BIM towards Quantity Surveyors in Sarawak. Through the adoption of BIM application, Quantity Surveyor could upgrade they complete their tasks such as doing cost estimating into another level of expertise which is this type of BIM will only focus on cost management. However, there are some of quantity surveyors who still