COLLEGE OF BUILT ENVIRONMENT
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THE LEVEL OF BUILDING INFORMATION MODELLING (BIM) IMPLEMENTATION IN FACILITY MANAGEMENT: CASE STUDY OF KKR2 TOWER

Academic Project Submitted in Partial Fulfillment of the Requirement
for the Award of the Degree
Bachelor of Estate Management (Hons)

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ABSTRACT

Building Information Modelling (BIM) is defined as three dimensions (3D) technology that can represent an accurate virtual model of a building that will improve the life cycle of a building. BIM can be used for the designing and planning stage, the construction stage and the operation and maintenance stage. However, as mentioned by previous researchers; BIM used is not fully utilized because mainly BIM is used in the planning and designing stage and followed by the construction stage, while BIM in FM remains limited. This has resulted, the stakeholder does not have the confidence to invest in BIM for managing the operation and maintenance stage of a building. Due to that, this research aims to investigate the level of BIM implementation on Facility Management in KKR2 Tower and to determine benefits of BIM implementation in Facility Management in KKR2 Tower. The research used a qualitative approach by conducting face-to-face interviews with the respondent and supported with secondary data from journals, articles and books to reinforce the information. The finding of the research is based on PWD's management toward the BIM model. The data analysis showed that the level of BIM implementation for handing over documents is already at Level 3 - the illustration of the building plan is provided in 2D and 3D, handing over the document is using cloud server; Jcloud and the BIM model can be accessed by professional teams, client and PWD's asset management. Meanwhile, the benefits of using BIM in Facility Management were agreed by the respondent; reduced the cost of operation and maintenance, improved time response, improve documentation system, and enhance workers' productivity and efficiency.

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CHAPTER 1

BACKGROUND OF STUDY

1.1 Preliminary

Chapter 1 is about the background of the study. This chapter presents the major research components namely research background, research issue, objectives of the study, significance of the study, scope of study, research methodology and summary of the chapter. This chapter is to provide a brief introduction to the research.

1.2 Research Background

Building Information Modelling (BIM) is defined as three dimensions (3D) technology that can represent an accurate virtual model of a building that will improve the life cycle of a building (Azhar, 2011; Volk et al., 2014). BIM can function to generate, store, manage and share data and information about a building during the planning and design stage, construction stage, and operations and maintenance stage (Hossain & Yeoh, 2018). Furthermore, most developed countries such as Australia, the United State, and Europe have implemented BIM in the construction industry because BIM is one of the techniques able to control and manage the project efficiently (Nuzul et al., 2017).

In developed countries, they have conducted various studies regarding the use of BIM for the design and construction stage, while BIM for the operations and maintenance stage is rarely explored (Carbonari et al., 2018; Dixit et al., 2019). Even