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BUILDING INFORMATION MODELLING (BIM) IMPLEMENTATION: ACADEMIA PERSPECTIVES

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ABSTRACT

Building Information Modelling (BIM) is a technological revolution and a process that changes the way building is planned, designed, analysed, constructed, and operated in the construction industry. The increasing use of the BIM in construction industry has now led to an emphasis on BIM in education institution. Nowadays, most of the construction firms in Malaysia are looking for employees with hard and skilled skills in this type of technology. Knowledge and skills about BIM should be applied in students in education institutions, and if it is not, the graduates will be having difficulties entering a professional career. Past studies have examined barriers that have resulted in low adoption BIM in Malaysia, but they do not study deeper on academia perspectives in education institutions. Thus, this research aim is to establish how BIM can be implemented in the education institutions from the perspectives of academia. Three objectives have been formulated were to investigate awareness on BIM benefits in education among academia, to determine the barriers on BIM implementation among academia, and to identify the initiatives taken by academia due to implementation of BIM. In order to achieve the aim of this study, the questionnaire survey has been distributed to the academia in education institutions in Malaysia. The outcomes of this research can help further expand the benefits of BIM by seeking up solutions to overcome the barriers in implementing BIM in education. Moreover, the findings directly give an impact on students and academia efforts to further develop BIM in education more widely.

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CHAPTER 1

INTRODUCTION

1.1 CHAPTER OVERVIEW

This chapter begins with the background of the study and is followed by the problem statement. Then, aim, research questions, and research objectives, and the next section includes the scope of the study, and the section is the organization of this thesis. Then, the chapter ends with a summary.

1.2 BACKGROUND OF THE STUDY

The construction industry is one of the most important industries in developing and improving the economic sector and developing countries all around the world. The clients, contractors, subcontractor suppliers, consultants, and designers are the people involved in the construction sector (Orzohon, Abbott, and Aoud, 2010). Although the construction industry greatly influences the development of a country, there will be problems if the progress and development of this industry are not well planned. In today's construction world, various types of projects and developments are increasingly complex, and strict building codes with legal aspects add to the challenges of the built environment. This challenge can only be addressed with effective and enhanced communication, coordination, and management, highlighting the importance of data and information management.

Innovation has become a significant issue for all industries and countries because of its contribution to national economic growth, competitiveness, and higher living standards. Rapid technological advances and fierce competition in the construction market to provide better services have led to profound changes towards using innovative methodologies in the construction industry (Vilutiene, Hosseini, Pellicer, and Zavadskas, 2019). The global construction sector has started using new