

UNIVERSITI TEKNOLOGI MARA

EVALUATING THE EFFECTIVENESS ON BIM TRAINING PROGRAMME IN PROPOSING GUIDELINE AT MYBIM CENTRE, MALAYSIA

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ABSTRACT

BIM is now one of the technologies used in the construction industry. The Malaysian government has promoted the use of BIM since 2013 through CIDB, and different studies have shown that BIM adoption in the construction industry offers several benefits and challenges for construction stakeholders. CIDB Malaysia has recognised myBIM Centre as a certified BIM training provider in Malaysia. Numerous individuals and organisations have seen the advantages of BIM training and participate actively. But, the main problem, is how to measure the effectiveness of the training, in addition, myBIM Centre is a new development and the existing evaluation is for the moderate only not reflect the performance outcomes of the trainee. Therefore, the purpose of this research is to enhance BIM training programme based on attitude, knowledge and skill development in proposing guidelines at myBIM Centre. The objective is to identify the effect of demographic background on the training, to examine the effectiveness of attitude, knowledge and skill development towards performance indicators and to propose a guideline for enhancement of BIM training programme. The primary data were collected from the questionnaire survey. 205 questionnaires have been distributed. 104 were received and analysed using crosstab and chi-square test and linear regression test to achieve the objectives. Findings reveal that demographic backgrounds for ages, education level and experience give different impacts to result in the effectiveness of attitude, knowledge and skill development. The second finding reveals, that between attitude, knowledge and skill development, the development of knowledge and skills is more likely to have an impact on performance outcomes. These findings will be used in proposing a guideline for the enhancement of BIM training programme at myBIM Centre.

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CHAPTER ONE

INTRODUCTION

1.1 Research Background

The construction industry is transforming in conjunction with technology. Building Information Modelling (BIM) is one of them, and its adoption has been aggressively advocated at both the local and international levels. BIM training has recently been popular among BIM practitioners who wish to develop their knowledge and abilities in order to react to industry demands.(Huang, 2016) Consequently, management training and competency and proficiency person growth tend to fall beyond the scope of training programmes. Furthermore, the study emphasises highlighted concerns such as trainees' scepticism about the investment made in training development and the lack of post-training evaluation for trainees after they have finished BIM training to signal a successful benchmark and adjust to their working environment.

There is a need for more precise data for assessment to improve the BIM training programme, particularly for myBIM Centre, the organiser of the training development programme. The study sought to assess the aspects of effectiveness on BIM training performance outcomes at myBIM Centre in Malaysia to propose advice for improving the BIM training programme. The study is organised as follows. It begins with a review of the literature on the efficacy of attitude, knowledge, and skill development, as well as performance outcomes, and then moves on to the study methodology and an outline of the training aims and objectives. The study concludes with recommendations for guidelines and future research.

1.2 Background of the Study

Since 2007, the Public Works Department (PWD) has been introducing Building Information Modelling (BIM) in Malaysia through the BIM Standard Manual and Guideline.(Latiffi, et al., 2013) The Construction Industry Development Board (CIDB) has established a Special Committee to oversee BIM operations in Malaysia, with the presence of