

**BACHELOR OF QUANTITY SURVEYING (HONS.)
DEPARTMENT OF BUILT ENVIRONMENT STUDIES
AND TECHNOLOGY
COLLEGE OF BUILT ENVIRONMENT STUDIES
UNIVERSITI TEKNOLOGI MARA
SERI ISKANDAR, PERAK**

**INTEGRATING BUILDING INFORMATION
MODELLING (BIM) IN QUANTITY SURVEYING
PRACTICES**

Dissertation in partial fulfillment of the requirements for the award of
Bachelor of Quantity Surveying (Hons.)

**PREPARED BY: FARAH ADLINA BINTI BUSHRAL
KARIM (2022898226)**

SEMESTER : MARCH 2024 - AUGUST 2024

DECLARATION

“I declare that this dissertation is the result of my own research and that all sources are acknowledged in the references”

Student's signature :

Student's name : Farah Adlina Binti Bushral Karim

Date : 24 June 2024

ABSTRACT

BIM, which has surfaced since the previous two decades, has the potential to alter and boost of CI in many ways. Especially in boosting quantity surveying practices. However, even though BIM had already been introduced in Malaysia construction industry for some time, the implementation has been quite slow and improvements are stagnant. This is especially so for quantity surveyors, as consultant firms, QS practices Construction Industry 4.0. The aim is to investigate the factors that influence the successful integration of Building Information Modeling (BIM) among quantity surveyors in Malaysia and to provide recommendations for maximizing the benefits of BIM in the Malaysian construction industry. The objective of this research are to identify the benefits, to determine the challenges and the strategies of integrating BIM in quantity surveying practices. The study employs a quantitative method, using primary data from a questionnaire survey and secondary data from literature reviews. This study has been conducted among quantity surveying firms in the northern region of Malaysia and is stated in the BQSM, which is Perak, Kedah and Pulau Pinang, excluding Perlis as there is no QS firm there. The sample size is determined based on the population analysis, with a total of 32 firms. Overall, the findings demonstrate that the integration of BIM into QS practices can significantly enhance efficiency, accuracy, and informed decision-making in the construction industry. Though, it requires multiple parties to overcome the existing barriers to integrate BIM in QS practices

Keywords: *BIM, Quantity Surveyors, Problems, Benefits, Strategies, Practices*

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 ideas and understanding in my journey of completing this research. For the strength, determination, and rezeki, in preparing this final project despite the obstacles that I went through to complete this final project. With the permission and grace from Allah S.W.T., I managed to complete this final project satisfyingly.

My gratitude also further extends to my supervisor, Assoc. Prof. Sr Dr. Asmalia Binti Che Ahmad, who has given me guidance and always pulling me down to reality. For her support and contribution of ideas in preparing this final project. Also, special thanks for his insightful supervision, encouragement, and thoughtful criticism throughout the research.

Furthermore, my gratitude also extends to those who agreed to be surveyed and gave me the benefit of their knowledge, views, and experience. I am also indebted to all my friends for their moral support and encouragement during the preparation of this final project.

Not to mention, I am also grateful to my family members, for their support in my studies. They are the one who gave me the boost I needed to help myself. They have also helped me financially throughout conducting the research.

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

Thank you.

TABLE OF CONTENT

DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
LIST OF ABBREVIATIONS	i

CHAPTER 1

1. INTRODUCTION	
1.1 RESEARCH BACKGROUND	1
1.2.PROBLEM STATEMENT	2
1.3.RESEARCH AIM	4
1.4.RESEARCH OBJECTIVE	4
1.5.RESEARCH QUESTION	4
1.6.METHODOLOGY	4
1.7.DATA COLLECTION	6
1.8.SCOPE OF RESEARCH	6
1.9. TENTATIVE CHAPTER	8

CHAPTER 2

2. LITERATURE REVIEW	
2.1.INTRODUCTION.....	9
2.1.1.DEFINITION OF QUANTITY SURVEYOR AND BUILDING INFORMATION MODELLING	10
2.1.2.BIM HISTORY AND CURRENT IMPLEMENTATION	13