



**COLLEGE OF BUILT ENVIRONMENT
UNIVERSITI TEKNOLOGI MARA**

**THE INFLUENCE OF COST BENEFIT INDICATORS
IN MANAGING THE GREEN BUILDING**

**Academic Project Submitted in Partial Fulfillment of the Requirements
For the award of the Degree
Bachelor of Estate Management (Hons)**

**MOHAMAD FAARIS BIN HAMZAH
2023305507
SEMESTER MARCH 2023 – JULY 2025**

ACKNOWLEDGEMENT

Praise to Allah, I am grateful to the Almighty Allah SWT for His direction and making the process of finishing the study proposal smoothly. Additionally, I want to sincerely thank my cherished supervisor lecturer for my final year. project, Dr. Noryanto Asroun bin Mohamad Asroun, for his unwavering encouragement, support, and guidance from the start of the assignment to the conclusion of this study. I was given plenty of time to do this task, which relates to my practice in the subject. I was able to finish this study after analysing all of the journals and data I had gathered. Dr. Noryanto gave me a lot of motivation to work on this study. This assignment's study has equipped me with the skills I need to work on major assignments, primarily in completing research.

Also, a special thanks to my family that helps me a lot in completing the research by using their connections in real estate fields and their unwavering support from the beginning of my degree journey. I would also like to highlight gratuity to my fellow classmates, and that had helped me physically and emotionally in completing this study. You guys were the true Most Valuable Person (MVP) in this journey of my degree.

I also want to express my gratitude to everyone who helped make this assignment a success, whether directly or indirectly. Additionally, I want to thank my friends and family for their unwavering prayers and support. Unexpected things have happened a few occasions, which made the research more difficult. Nevertheless, I have approached the challenges head-on and have not allowed them to derail the project's completion. To prevent any awkward errors throughout the research process, this study has taught me to be patient, manage my time well, and think optimistically.

ABSTRACT

A lack of practical knowledge regarding the relative influence of cost and benefit indicators hinders the development of efficient management techniques for green buildings in Malaysia. The objectives of this research are to analyse the impact of cost indicators on green building management, evaluate the influence of benefit indicators, and identify the most influential cost-benefit factors in managing green buildings. The study uses a quantitative approach, distributing questionnaire surveys to property management personnel of green buildings in Johor Bahru and analyzing the results using frequency and mean score. According to the results, cost-related indicators such as operating costs and lifespan costs have less impact than benefit-related indicators such as better indoor air quality, energy savings, and less environmental impact. These results show that property management personnel place a higher priority on the benefit indicators, especially those that concern sustainability and occupant well-being have a greater impact influence than cost indicators such as energy and water saving.

TABLE OF CONTENTS

CHAPTER	ITEM	PAGE
	Title Page	I
	Student's Declaration	ii
	Supervisor's Declaration	iii
	Acknowledgement	iv
	Abstract	v
	Table of Content	vi
	List of Tables	lx
	List of Figures	xi
	List of Abbreviation	xii
CHAPTER 1	INTRODUCTION	
1.1	Research Background	1
1.2	Problem Statement	2
1.3	Research Question	3
1.4	Research Aim	3
1.5	Research Objectives	3
1.6	Research Scopes and Limitation	3
	1.6.1 Scopes of Research	3
	1.6.2 Limitations of Research	4
1.7	Significance of Study	4
1.8	Research Methodology	4
1.9	Research Design	5
	1.9.1 First Phase: Preliminary Study	5
	1.9.2 Second Phase: Literature Review	5
	1.9.3 Third Phase: Data Collection	5
	1.9.4 Fourth Phase: Analysis of Data	6
	1.9.5 Fifth Phase: Research Findings	6

CHAPTER 1

INTRODUCTION

1.1 Research Background

Green building refers to the practice of designing, constructing, and operating buildings in a way that minimizes environmental impact and promotes sustainability. This approach focuses on energy efficiency, water conservation, indoor environmental quality, and the use of sustainable materials to reduce carbon footprints and enhance occupant well-being. Green buildings incorporate renewable energy sources, efficient waste management systems, and eco-friendly design strategies to achieve long-term environmental and economic benefits. According to recent studies, green buildings contribute to climate change mitigation and resource conservation by optimizing building performance and reducing operational costs (Shafiei et al., 2023).

The Green Building Index (GBI) is Malaysia's national green rating system developed to assess and certify the environmental performance of buildings. It evaluates various aspects such as energy efficiency, water efficiency, indoor environmental quality, sustainable site planning, and the use of green materials. GBI certification provides recognition for buildings that meet sustainability criteria and encourages developers to adopt eco-friendly practices. Introduced in 2009 by the Malaysian Institute of Architects (PAM) and the Association of Consulting Engineers Malaysia (ACEM), the GBI plays a crucial role in guiding the construction industry toward more sustainable development (Kamaruzzaman et al., 2022).

Effective green building management is vital for maintaining and enhancing the sustainability features of a building throughout its lifecycle. Proper management ensures that energy-saving strategies, water efficiency measures, and waste reduction initiatives continue to perform effectively, resulting in long-term cost savings and environmental benefits. It also involves regular monitoring, maintenance, and updating of green technologies to adapt to evolving sustainability standards. Studies emphasize that successful green building management leads to increased property value, improved occupant health, and regulatory