

**UNIVERSITI TEKNOLOGI MARA**

**KEY PEOPLE CAPABILITY  
CRITERIA OF GREEN  
PROCUREMENT  
IMPLEMENTATION FOR  
CONSTRUCTION PROJECTS**

**AFIQAH ILIYANA BINTI SAMSUL  
BAHARI**

Thesis submitted in fulfilment  
of the requirements for the degree of  
**Master of Science  
(Built Environment)**

**College of Built Environment**

**December 2023**

## **ABSTRACT**

The adverse environmental impact of construction activities has called for a greener approach to be adopted urgently. In the Twelfth Malaysian Plan (2021-2025), the Malaysian government introduced the concept of green procurement in works, mainly for the construction industry. However, implementing green procurement for construction in Malaysia is still in the introductory phase, even though it has gained popularity among construction academics and practitioners worldwide. Green awareness in the construction industry has been addressed in the National Construction Policy 2030 and Sustainable Development Goals, but until today, the implementation of green procurement has yet to be established. Past researchers have identified awareness and knowledge as the main challenges in adopting green practices. Therefore, this research aims to develop the people capability of green procurement in adopting a green procurement framework for construction projects in Malaysia. The objectives of this research are to identify the people's capability criteria to adopt green procurement practices, to investigate the key capability criteria for successful green procurement in the construction industry, and to establish the key capability building framework for the construction industry in Malaysia. This research was conducted using a mixed-methods approach through focus group discussion (FGD) and the questionnaire as the primary survey tool. Questionnaires were distributed to experienced practitioners attached to construction stakeholders in Kuala Lumpur. This research has identified the four key people capabilities, namely anticipatory, system thinking, interpersonal and strategic. The research contributes to creating a more ecologically responsible community in Malaysia's construction sector and supporting government policies such as the National Construction Policy 2030 to move towards a greener approach.

## ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful.

All praise to Allah for his blessing and guidance. I have finally come to the end of my master's degree journey. First and foremost, I would like to express my gratitude to my supervisors, Sr Dr. Asmah Alia Mohamad Bohari and Assoc. Prof. Sr Dr. Natasha Khalil, for their support and enlightenment throughout this journey. Thank you to Fundamental Research Grant Scheme (FRGS) reference number FRGS/1/2021/SSI02/UITM/02/4 for partly funding this research.

My appreciation goes to all the lecturers from the quantity surveying department of Universiti Teknologi Mara, Kampus Samarahan, Sarawak, for their never-ending motivation and assistance in the completion of this thesis. Special thanks to my friends, especially Dg Nur Amalina, Nurul Natasha, Exquan Amir, Faezah Tairini, and Syaza Farina, for helping me and giving moral support until I am able to reach this far. I owe this all to you guys.

Next, I would like to dedicate this thesis to the memories of my very dear late mother, \_\_\_\_\_, and to my father, Samsul Bahari bin Sarkawi, who always believed in me and was committed to ensuring that I had an education. I would like to dedicate this slice of success to both of you. Alhamdulillah.

Last but not least, I want to thank me. I want to thank me for believing in me. I want to thank me for doing all this hard work. I want to thank me for having no days off. I want to thank me for never quitting. I want to thank me for always being a giver and trying to give more than I receive. I want to thank me for trying to do more right than wrong. I want to thank me for just being me at all times.

# TABLE OF CONTENTS

	<b>Page</b>
<b>CONFIRMATION BY PANEL OF EXAMINERS</b>	<b>ii</b>
<b>AUTHOR'S DECLARATION</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>x</b>
<b>LIST OF FIGURES</b>	<b>xi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xiii</b>
<b>CHAPTER ONE INTRODUCTION</b>	<b>1</b>
1.1 Research Background	1
1.2 Problem Statement	3
1.3 Research Aim	4
1.4 Research Objectives	5
1.5 Research Question	5
1.6 Methodology	5
1.7 Research Scope	7
1.8 Significance of Study	9
1.9 Thesis Outline	10
<b>CHAPTER TWO LITERATURE REVIEW</b>	<b>12</b>
2.1 Introduction	12
2.2 Overview of the Construction Industry	12
2.2.1 Contribution of the Construction Industry Towards The Economy	12
2.2.2 Construction Activities	14
2.2.3 Roles of Stakeholders	16
2.2.4 Introduction to Sustainable Development Goals (SDGs)	18
2.2.5 Impacts of the Construction Industry on the Environment	19

# CHAPTER ONE

## INTRODUCTION

### 1.1 Research Background

Ruddock (2008) defines the construction industry as creating and sustaining a built environment where it transforms the raw material into manufactured products into the final product with professional services that end up selling it. Construction is one of the biggest industries vital to improving economic development. An important industry enhances national welfare by constructing social facilities such as hospitals, education buildings, community centres, and other public conveniences.

The Department of Statistics Malaysia (2021) has released Malaysia's Economic Performance for the Second Quarter of 2021, where the construction sector contributed 3.7% to the Malaysian Gross Domestic Product (GDP). In addition, the Malaysian construction sector is anticipated to contribute 4.2% of the country's GDP by 2050 (Economic Planning Unit Malaysia, 2021). This proves that the construction sector is one of the vital sectors in the Malaysian economy. Khan et al. (2014), and Berawi et al. (2019) agreed that the construction industry has a vital role in improving the economy due to its dynamic, which covers both the forward and backward of another area.

However, due to its fragmented industry structure, the construction sector was shown to be the major polluter and source of greenhouse gas emissions (Nawi et al., 2012). Due to the activities in construction supply chains, various environmental impacts have been attributed to the construction industry, such as global warming, biodiversity loss, and air quality reduction (Bidin et al., 2020). The governments and corporations acknowledged these impacts by promoting a sustainable environment in the construction industry.

The government is taking various initiatives to minimise this issue, such as the implementation of Building Information Modelling (BIM), Industrialised Building System (IBS), value management and life cycle costing for asset management, and the latest initiative is the implementation of green procurement in the construction project (Padzil et al., 2018). In 2009, the Green Technology and Climate Change Council (NGTCCC) was formed by the Ministry of Energy, Green Technology, and Water