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THE AWARENESS OF THE APPLICATION OF
SUSTAINABLE MATERIALS THROUGH
DEVELOPER'S PERSPECTIVE

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DECLARATION

"I declare that this Final Project/dissertation is the result of my own research and that all sources are acknowledged in the references"

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ABSTRACT

Raw materials and energy are consumed as much as 24% by construction industry. With more construction projects anticipated in the future, mother nature is in dire need of change to minimise pollution as well as minimising the depletion of natural resources. Construction industry has to change the norm of using natural resources to sustainable materials. However, there are problems that arise with this concept – lack of knowledge on sustainable materials, lack of realization of policies and lack of demand due to cultural barriers. Thus, this paper aims to study the awareness of the application of sustainable building materials through developer's perspective. In order to achieve the aim, this paper would focus on the study of the application of sustainable materials in construction projects, the analysis on the awareness of sustainable materials usage and the identification of barriers in incorporating sustainable materials through developer's perspective. The data can be obtained through two methods which are primary data and secondary data. The primary data used was questionnaire survey meanwhile secondary data was obtained through extensive review on literature. The questionnaires were analysed using SPSS. The research findings show that many developers in Kuching have experience in using sustainable materials but there is also a need for the Government to cause a steer in construction industry in order for developers to follow suit. Developers have also responded to the barriers impeding them to adopt sustainable materials – financial barrier, professional barrier, steering barrier, availability and suitability of materials. The identification of these barriers is helpful to ensure sustainable materials are being regularly used in future construction projects.

Keywords: Sustainable Materials, Sustainable Construction, Barriers

Table of Contents

ABSTRACT	I
ACKNOWLEDGEMENT	II
Table of Contents	III
List of Figures	V
List of Tables	VI
List of Abbreviations	VII
CHAPTER 1	1
INTRODUCTION	1
1.1 BACKGROUND.....	1
1.2 PROBLEM STATEMENT	2
1.3 RESEARCH QUESTIONS.....	2
1.4 AIM AND OBJECTIVES	3
1.5 SIGNIFICANCE OF RESEARCH	3
1.6 SCOPE OF WORK.....	5
1.7 RESEARCH METHODOLOGY.....	5
1.8 DISSERTATION OUTLINE.....	5
CHAPTER 2	7
LITERATURE REVIEW	7
2.1 SUSTAINABILITY.....	7
2.2 SUSTAINABLE DEVELOPMENT	8
2.2.1 History of sustainable development	9
2.2.2 Relationship between environment, economy and society.....	12
2.3 SUSTAINABLE CONSTRUCTION	13
2.3.1 Principles of sustainable construction	15
2.4 SUSTAINABLE BUILDING	16
2.5 SUSTAINABLE MATERIALS.....	18
2.5.1 Sustainable materials in Malaysian construction industry	19
2.6 WASTE RECYCLING	20
2.6.1 Waste recycling in Malaysia	22
2.6.2 Recycled materials	24
2.6.3 Types of recycled materials	25
2.6.4 Buildings made of recycled materials.....	27
2.6.5 Application of recycled materials in construction.....	30
2.7 BARRIERS OF IMPLEMENTING SUSTAINABLE MATERIALS IN CONSTRUCTION	38

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Due to vast development, there has been requests on properties especially residential and major civil structures in the country (Nasaruddin et. al., 2008; Siti and Noor, 2008), there have been many wastes generated not only by the construction industry but also other industries leaving a very high carbon footprint. Hence, the environment is affected negatively. The issue of construction wastes generated is becoming more alarming in Malaysia (Begum et. al., 2007; Begum et. al., 2010).

Wastes are fragment of life and they are mostly gone to landfills. Wastes are not only limited to construction and demolition wastes but it is also inclusive of other wastes such as agro waste, industrial wastes, mining wastes, non-hazardous and hazardous wastes (Pappu et. al., 2007). 15% of construction and demolition wastes are from developed countries like Finland and Germany which are then deposited in landfills (Faniran and Caban, 1998). Since wastes are increasing everyday due to rapid growth of population, landfills are burdened with more loading which shortens their lifespan (Nagapan et. al., 2013). However, if they are recycled, less landfills are required for wastes (Tam et al, 2006 and Koforowola & Gheewal, 2009).

Malaysia is also becoming more like these developed nations. The most common practice in Malaysia is dumping wastes in landfills (Nadarason, 2018). Solid Waste Management and Public Cleansing Corporation (SWCorp) and Construction Industry Development Board (CIDB) are among the policy makers in Malaysia which are committed to educate construction industry by campaigning, organizing 3R seminar, providing guidelines to contractors, consultant and clients to reduce construction and demolition waste generation.