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**CHALLENGES IN DEVELOPING GREEN  
OFFICE BUILDING FROM DEVELOPER'S  
PERSPECTIVES**

Final Project submitted in partial fulfilment  
of the requirement for the award of  
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## ABSTRACT

Nowadays, construction industry in Malaysia play important role in development of building with many design, construction methods, and material used in construction. However, our country is facing climate changes and security of energy which this issue require more cost in energy used. To solve this issue, green office building is the solution where this building can reduce the negative impact to the environment and give better health to the human and promote sustainable life. To achieve green building, there are systems called green rating tools that used to measure and evaluate the building. In Malaysia, the rating system used is Green Building Index (GBI). However, due to cost of green building is higher for up-front, lack of knowledge and expertise, and lack of awareness among client, consultant and contractor become the development of green building slowed. Hence, this paper proposed to study the challenges in developing green office building from developer's perspectives. The study was conducted using Statistical Package for Social Science (SPSS) software version 25 with quantitative method to analyse. A total of 90 respondents from developers in Selangor involved in the process. The result from SPSS show the majority of the respondents describe the most of challenging factors in developing green office building are lack of demand, followed by lack of awareness, and lack of database and information. The data is using Likert Scale such as following: 1=not challenging, 2=fairly challenging, 3=moderate, 4= challenging, and 5=very challenging. Hence, from the research it concluded that it is very challenging to develop green office building it is a vital element that must take account to solve this problems.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Study

Nowadays, the current construction industry has become wider rapidly in Malaysia with various unique design, construction methods and materials. With current condition, our country faced two problems which are the changes in climate and security of energy. To solve this issue, steps are being taken that concern with energy saving by built green building. According to (Addae-Dapaah et al, 2009), the green buildings can refer to building that can reduce the negative impact of real building construction to the environment and give better health impact to the human and to promote a sustainable life. Green building has a certain amount that can reduce waste and negative compound in environment. This technique is focusing on energy saving and energy efficiency in building sector meanwhile same with the target by Malaysia to reduce carbon emission of 40% from 2005 level by 2020 (Rashid. Y. R, 2011). Based on (USGBC, 2003; CBRE, 2010), the demand and supply of green building bring positive impact to the environment which can reduce 35% of carbon dioxide (CO<sub>2</sub>) emissions, reduce 30 to 50% of total energy use, save 70% on waste output, and reduce 40% of water usage.

The government have many initiatives to all developers to build green building hence there are a lot of benefits of using green building. As stated by (Rashid. Y. R, 2011), The government has developed a few energies efficiency building and green demonstration projects. For examples are Low Energy Office (LEO), Green Energy Office (GEO) and Energy Commission Building. The construction of green building have focus on indoor environmental quality which is to develop green building office. As stated by Liang. H. S (2014) the benefit of green building