UNIVERSITI TEKNOLOGI MARA

THE ENABLING FACTORS FOR GREEN BUILDING DEVELOPMENT OF HOUSING PROJECTS IN MALAYSIA

NUR ATIFAH BINTI BAHRUDDIN

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ABSTRACT

Transformation of the housing industry in Malaysia deliver huge benefits to accelerate Malaysian economic growth, but it requires a lot of involvement and efforts from various parties to implement. Here, the transformation of green housing also is able to preserve natural environment by fulfilling the quality of lifestyle of homeowners. Green housing is designed as sustainable manner with maximizing the resources and produces less impact on the environment. Furthermore, the Malaysian government had shown interest and encourages the practice of green development by various green policies and green rating measures. Through the National Green Technology Policy, the Malaysian government has the provision of housing should be developed in a sustainable manner in order to encourage green practice in the housing industry. Plus, the introduction of Green Building Index (GBI) as green rating tool for buildings to promote sustainability and growing awareness among construction players. However, the implementation of green housing is quite low due facing barriers to be implemented such as, budget constraints, lack of knowledge and information and lack of enforcement by government. Therefore, this research is focusing on to explore the issues implementation of green housing projects by looks in detail on the enabling factors being considered in green housing projects. The objectives were delineated to the aim which is to identify the enabling factors being considered by developers in developing green building projects, to analyse the significant enabling factors being considered by developers in developing green housing projects and lastly to recommend a conceptual framework of enabling factors for green building development in housing projects. Here, researcher wants to test whether, enabling factors for implementation of green building projects can be applied to green housing projects where, a quantitative approach was used in this research by using the closed-ended questionnaire that distributed to 86 developers that had been awarded housing project under GBI rating system. Fifty five questionnaires are collected and be analysing using decriptive analysis and confirmatory factor analysis (CFA). The findings have revealed, there are 16 variables out of 30 are significant as the enabling factors being considered by developers in developing green housing project while, these variables are illustrated by recommended the conceptual framework of enabling factors for green building development in housing projects.

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INTRODUCTION

1.1   Research Background

The demand for housing continues expanding due to the increasing numbers of worldwide population, improvement of quality of life and rapid modernization (Fazdliel, Wira, Radzi and Ilias, 2014). The Malaysian housing industry is also experiencing the same trend where Statistics Department of Malaysia been updated, the total number of residents in 2016 is 31.7 million. Ascertained by Nazirah, Nor'Aini and Ayman (2013), the demand for houses is expected to be more than 30 million in 2020 due to the urbanization (growth of cities with more population). However, Ezanee and Chong (2015) mentioned, the demand for green developments and services are quite low due to expensive costs compared to conventional products.

House is vital element in human life, therefore a house should be designed to create a balance between physical buildings, environment (surrounding conditions), and its residents. Generally, a conventional house produces 10 to 30 tons of carbon emission a year and it contributes to the unnatural weather change disasters (Ezanee and Chong, 2015). Here, the economic growth and expanding level of urbanization pushed the developing improvement of building and infrastructures that gradually give impact to the environment (Zuhairi et al., 2014). Furthermore, the urbanization adds various problems to the environment that destruction of flora and fauna, air pollution, water insufficiency and deterioration of ecological system (Kai, Ta and Hui, 2013; Nazirah, Nor'Aini and Hanizam, 2012). This phenomenon commonly happened because of uncontrolled development in the housing growth that destroyed the hillside area and plus with materials used and wastage management on site. Therefore, it is extremely important for the housing industry sectors to balance environmental impacts produced by housing development strategies (Ezanee and Chong, 2015).

In line with rapid development, Malaysian government emphasis on housing provision to be developed in a sustainable manner. As such, green policy and green rating system as guidelines in green development were developed to inculcate and inspire green development benchmarking (Fazdliel, Wira, Ilias and Radzi, 2013;