



***PREFERENCE AND ATTITUDE OF PROJECT MANAGER TOWARD
TIMBER AS BUILDING AND CONSTRUCTION MATERIALS***

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**PREFERENCE AND ATTITUDE OF PROJECT MANAGER TOWARD
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BY

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**A Project Report in Partial Fulfillment of the Requirement for the Degree of
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ABSTRACT

There is currently a limited use of timber product in residential development in Malaysia due to the dominance of heavy material such as concrete, steel and brick. This dominant use of heavy material is a reversal of the traditional material choices that was based predominantly on timber products. There are many weakness of timber compared with other material that makes construction sectors in Malaysia are not interested in using timber such as inconsistent and lack quality, high costs and fluctuated on the availability of the material. Even timber consumption stated may be more environmental friendly, perception of project managers are not only focused on the completed appearance of the building. This study was carried out to determine the attitude of the project managers toward timbers as construction and building materials and to analyses the preference of the project managers toward timbers as construction and building materials. The total 38 project managers from different companies have participated in answering the questionnaire related to their preference and attitude. In section 4.4 stated that most of the project managers have a positive attitude toward timber but still they concerned about price and maintenance of the material. About the preference project managers, even they have positive attitude towards timber as building and construction material, project managers in this study are not preferred to invest timber to be part of their building construction. It due to the prices of timber is higher than non-timber construction materials, they have lack in technical knowledge to deal with timber and amount of skilled worker to work with timber are limited.

ABSTRAK

Pada masa ini terdapat penggunaan produk kayu yang terhad dalam pembangunan kediaman di Malaysia kerana penguasaan bahan berat seperti konkrit, keluli, dan batu bata. Penggunaan dominan bahan berat ini adalah bertentangan dengan pilihan bahan tradisional yang pada dasarnya majoriti kepada penggunaan produk kayu. Terdapat banyak kelemahan kayu berbanding dengan bahan lain yang membuat sektor pembinaan di Malaysia tidak berminat menggunakan kayu seperti tidak konsisten dan kekurangan kualiti, kos yang tinggi dan berfluktuasi terhadap ketersediaan bahan. Walaupun penggunaan kayu yang dinyatakan mungkin mesra alam, persepsi pengurus projek tidak hanya tertumpu pada penampilan bangunan yang telah siap. Kajian ini dijalankan untuk menentukan sikap pengurus projek terhadap kayu sebagai bahan pembinaan dan bangunan serta untuk menganalisis keutamaan para pengurus projek terhadap kayu sebagai bahan pembinaan dan bangunan. Jumlah keseluruhan 38 pengurus projek dari syarikat yang berlainan telah mengambil bahagian dalam menjawab soal selidik yang berkaitan dengan keutamaan dan sikap mereka. Dalam seksyen 4.4 menyatakan bahawa kebanyakan pengurus projek mempunyai sikap positif terhadap kayu tetapi mereka masih prihatin terhadap harga dan penyelenggaraan bahan tersebut. Mengenai keutamaan pengurus projek, walaupun mereka mempunyai sikap positif terhadap kayu sebagai bahan bangunan dan pembinaan, pengurus projek dalam kajian ini tidak berminat untuk menggunakan kayu sebagai sebahagian daripada pembinaan bangunan mereka. Ia disebabkan oleh harga kayu yang lebih tinggi daripada bahan binaan bukan kayu, kurang pengetahuan teknikal untuk menguruskan penggunaan kayu dan juga jumlah pekerja mahir untuk bekerja dengan kayu semakin terhad.

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APPROVAL SHEET

I certify that this research project report entitled “**Preference and Attitude of Project Manager Toward Timber as Building And Construction Materials**” by Siti Hajar Binti Hisamuddin has been examined and approved as a partial fulfillment of the requirements for the degree of Bachelor of Wood Science and Technology in the Faculty of Forestry, University Putra Malaysia.

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CHAPTER ONE

INTRODUCTION

1.1 Background

Timber has been used in single houses, multi-residence also in non-residence construction for many centuries throughout the world depending on the available resources, technologies and skilled artisan (Kolb, 2008). During last century in Malaysia, houses were built with timber as the structural and non-structural elements as evidenced by the few notable Malay architectural and structures, such as Mansur Shah Palace in Malacca (Hajeedar, 2004). Another example of timber structure that has withstood the test of time for the past 400 years is the Kampung Laut Mosque in Kelantan (Hajeedar, 2004). At that time, timber has been the most available, durable and easiest to work with building material.

As the Malaysian economies continue to grow, population growth is also expected to increase. This has resulted in an increasing demand of residential and non-residential building in accordance with the economic performance. New building materials, techniques and technologies have been brought in to meet the demand of residential and non-residential development project, thus, affecting the proportional usage of timber in building construction. Lately, timber is being replaced with reinforced concretes in post and beam, asbestos sheet in ceiling and brick as non-structural wall. Timber is processed into door and window frame, often used in unexposed condition in newly constructed building project design.

Although the use of timber in the construction decreases following the decades, there is still have some part that can use timber-product to complete the building unit where timber-based product have their traditional value which cannot be easily change with another product. Timber, which was extensively used in building construction in Malaysia, has been replaced by concrete, brick and block since the 1970s (Marsono & Balasbaneh, 2015).

The use of timber as a building material in Malaysia has been highlighted in early 1970s despite the abundant of material during that time (Drakakis-Smith, 1977). Timber's poor and inconsistent quality, fire performance as well as high and fluctuating cost has been cited for the construction industry's disinterest in using timber especially in permanent structural uses (Ismail *et al.*, 2008, Tan *et al.*, 2005). The residential construction process is formed through a series of complex relationship between design professional, project managers, material supplier and architect. This complexity explained the reason why there is a declining in utilization of timber in construction sectors whereas development in Malaysia is growing rapidly.

1.2 Problem Statement

The introduction of several new building material such as concrete, cement and brick timber continue to play an important role in building construction. Despite getting less attention to be in construction building material and internal construction, timber domestic market also consistently less than exports market. For example, in 2008, timber domestic market for primary and furniture in Malaysia recorded RM7.6 billion compared to export market that reached until RM22.5 billion (MPIC, 2009). Not only exported wood product to another country, Malaysia also imported product under the category builder and carpentry (MTIB, 2015).

The aim for this study is to determine the viewpoint of the project owner in selecting timber as one of their housing construction material. By running this analysis, thus we can know their preference and attitude toward timber in many aspects which should be considered before starting a huge project involving a lot of investment. Although Malaysia is known as a producer of timber products, the question of why the use of timber in residential building construction decreases throughout the year remains unanswered.

1.3 Objectives

This research aims to determine the attitude of housing project owner in deciding the material for construction or building project. The other objective of this research is to analyses the preference of the housing project owner in deciding material for construction or building project.

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