

UNIVERSITI TEKNOLOGI MALAYSIA

BORANG PENGESAHAN STATUS TESIS ◆JUDUL : **BUILDING REFURBISHMENT PROJECT IN MALAYSIA**SESI PENGAJIAN : **2005/ 2007**Saya **NUR KHAIRUL FAIZAH BT MUSTAFA**

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BUILDING REFURBISHMENT PROJECT IN MALAYSIA

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**A project report submitted in partial fulfilment of the
requirements for the award of the degree of
Masters of Science (Construction Management)**

**Faculty of Civil Engineering
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MAY, 2007

I declare that this project report entitled “*Building Refurbishment Project In Malaysia*” is the result of my own research except as cited in references. The project report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature :

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Date : 11th May 2007

For my parents, my beloved husband Johari and my son Naufal.

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ABSTRACT

The building refurbishment project is seen as a commodity that can be obtained from the market at certain price and accordingly the reasons for the decision to initiate a refurbishment project are seen as a basis of demand. Early refurbishment or a short refurbishment cycle indicates that the built environment does not offer expected satisfaction to many building owners. Thus, refurbishment provides competition to all pleasure generating commodities. The reuse or recycle of building stock for refurbishment purposes is largely required as to make use and improve the existing resources. Lack of control by the Local Authorities has resulted unknown statistical data in refurbishment project. Enhancing the building refurbishment into a wider approach is a greater indeed which enable to provide well organize control and planning of refurbishment work. This study was aimed in providing a better understanding on the refurbishment project's process implemented in the Malaysian's construction industry. This study was mainly provided results and findings of an interview which was conducted to identify the current practice of the government and non government organization in dealing with the process of refurbishment project. This study argued that their practice may be less effective and suggestion to the best practice in carrying the refurbishment process was compared with Standard Practice of Refurbishment (SPR), a model practiced in United Kingdom. It also highlighted the problem related to the refurbishment process conducted throughout the case study which was further analysed from the organizations. This study concluded with the recommendation on the proposed refurbishment process in fulfilling the requirement among all.

ABSTRAK

Projek pembaikpulihan bangunan merupakan suatu komoditi yang melahirkan suatu pasaran yang baik dan aktiviti ini boleh dikatakan mendapat permintaan yang luas. Pembaikpulihan peringkat awal atau pusingan dalam jangka masa pendek menunjukkan persekitaran bangunan itu masih belum memenuhi kehendak pemilik bangunan. Oleh yang demikian, pembaikpulihan ini mendapat persaingan yang baik di peringkat pasaran semasa. Penggunaan semula atau kitaran semula stok bangunan sedia ada bagi tujuan pembaikpulihan adalah diperlukan agar penggunaan bangunan tersebut dapat dipertingkatkan atau diperbaharui. Kurang pengawalan terhadap projek pembaikpulihan daripada pihak berkuasa tempatan menunjukkan tiada data yang direkodkan. Dengan mengetengahkan projek pembaikpulihan ini, maka ia dapat menyediakan suatu bentuk pengawalan dan perancangan yang lebih baik. Kajian ini adalah bertujuan untuk memantapkan pemahaman dalam projek pembaikpulihan bangunan khususnya di dalam industri pembinaan di Malaysia. Kajian ini dijalankan untuk menegenalpasti proses pembaikpulihan bangunan yang dilaksanakan oleh pihak kerajaan dan bukan kerajaan masa kini melalui kaedah temuramah. Kajian ini dibuat untuk menilai keberkesanan proses pembaikpulihan bangunan dan cadangan untuk mempertingkat proses tersebut dibandingkan dengan satu proses iaitu 'Standard Practice Of Refurbishment' (SPR) yang dipraktikkan di United Kingdom. Kajian ini juga dijalankan untuk mengenalpasti masalah-masalah yang terlibat berkenaan dengan proses projek pembaikpulihan bangunan melalui kaedah kajian kes daripada pihak tersebut. Sebagai kesimpulan bagi kajian ini, dicadangkan suatu

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CHAPTER 1

INTRODUCTION

1.1 Refurbishment Project In Malaysia

Refurbishment of buildings is becoming increasingly common to enable the provision of modern facilities within old buildings. It is also to retain buildings of architectural merit and because it may be less expensive than new build. The degree of refurbishment can vary enormously from simple refitting to altering the existing structure, including gutting and extending both upwards and sideways. Special planning, design and construction needs of refurbishment projects have to be considered.

In Malaysia, it may regard as new phenomenon which less approach in utilizes it. The life of a building is not unlimited. However, the typical building frame is expected to last a good deal longer than other parts of the building. It is illustrated that refurbishment in its many forms with the terms of modernization, renovation, rehabilitation and repair which determine as one of the most important economic drivers in the construction industry. It is seen as a commodity that can be obtained from the market at certain price and accordingly the reasons for the decision to initiate a refurbishment project are seen as a basis of a demand.

There are many reasons for refurbishing a building. In some cases the refurbishment is so extensive that only the original facade remains, the interior being totally reconstructed. This work might be described as restructuring and represents the most extensive form of repair or reconstruction activity associated with existing buildings. Although it is generally more expensive than total demolition and new construction, it may be economically viable due to local planning or tax incentives. Obviously the economics of the more costly solution of restructuring needs to be considered against the option of starting again from scratch but achieving a smaller lettable area.

The successful adaptation of Central Market project in carrying refurbishing and renovating work has yet retaining the original façade, exterior as well as other unique features. The involvement of government and non government bodies with the execution of local authorities will help to administer the refurbishment project efficiently. But the effectiveness of implementing the process is still in question which each organization has set up the process in different ways.

1.2 Problem Statement

It is observable that the reasons for refurbishment project have a greater or lesser degree of important to the buildings' different interest groups. The owner expects the building to be an investment. Due to lack of reliable statistic and research on refurbishment in Malaysia, the contribution of refurbishment to the construction output is not exactly known. The unpublished data obtained from the CIDB shows that repair and maintenance (R&M) contributed RM 1.2 billion or about 2% of the construction output in 2001. But since the CIDB's statistic on the R&M sector does not include work carried out illegally by many house owner for example for those refurbishment work without the approval of the Local Authorities, the actual size of refurbishment project is probably much longer.

A thorough literature review revealed that the complexity, uncertainty and multiplicity of situations posed problems of achieving integration in the planning and control of construction projects. According to Laufer (1994), construction planning is an interactive process performed by multiple participants, at different organizational levels and at different times and locations. Laufer et al. (1994) and Shapira et al. (1994) in their extensive research on the involvement of participants in decision-making in construction planning and control, discovered that the construction planning and control process involves many parties, internal as well as external to the construction companies. Laufer et al. (1994) also found that the information needed for planning and controlling is not found in one place, nor with one functionary, but rests with all parties. The decisions in the planning and control process are split among the key participants. This situation is termed by Laufer et al. (1994) as a 'multiplicity situation'.

In the United Kingdom for instance, the rate of growth in R&M sector, which includes refurbishment, has been outperforming the rate of growth of the new build sector. In 2002, refurbishment constituted around 40% of the total output of construction. In Malaysia, consciousness with regards to urban conservation is still a new phenomenon. In Kuala Lumpur, for instance, a growing concern among people arose due to the destruction of the urban environment and the threat to some of the city's familiar and historical landmark with the consequent alteration of the city's character.

Despite some efforts by conservation enthusiasts, demolition and unsympathetic changes to the original building still continue. In 2003, the President of the Heritage of Malaysia Trust had remarked that the oldest buildings in Malacca and Penang are under threat. Although these historic cities are seeking listing from UNESCO as a World Heritage Site, this destruction is fast spreading to other town throughout the country. This shows that the demand of refurbishment is there to eliminate the demolition of existing building to build a new one in which it helps as a shorter development period. The availability of buildings suitable for refurbishment is not only focusing the heritage building but other building also.

The rather small contribution of R&M in the construction sector in Malaysia is not entirely surprising. The Deputy Prime Minister, when officiating the resettlement for squatters of Kampung Sungai Kayu, on 17 September 2002, lamented on the lack of a proper maintenance culture in the Local Authorities and public sector in Malaysia. In the year 2020, when Malaysia is expected to become a developed country, land will be scarcer and more expensive. The Local Authorities and private building owners will then often be forced to refurbish rather than build the brand new building. Therefore refurbishment in future becomes an important sector in the construction industry. The determination of refurbishment process would help to forecast and plan an appropriate time. The management expertise in refurbishment will become more critical.

1.3 Objective Of Study

The objectives of the study are mainly focus on the following areas:

- 1) To study and identify the differences in carrying out the refurbishment project's process by the government and non government organizations.
- 2) To identify the problem faced by the government and non government organizations in dealing with the refurbishment project process.
- 3) To propose and recommend a standard model of refurbishment project's process among all.

1.4 Methodology

In carrying out the research, right methodology is required to enable the compilation of data and information from various sources. Thus, it involved three main stages starting from collection of data, analysis of data, conclusion, suggestion and recommendation related to each problem occurred. A systematic idea is required to have clear understanding of all processes in contributing the paper work preparation. The methods used to undertake the research is stated as below: -

- i) The first stage involve of literature review that is based on the secondary data collected from reading materials such as books, articles, seminar's paper and other published information supporting the topic of refurbishment project.
- ii) The second stage include of interview session with the government and non government organization who directly engage with the refurbishment project. Analysis of data by using qualitative methods is done through the collected reading materials and secondary data generated from the case study for each government and non government refurbishment's project.
- iii) The third stage comprise of recommendation which ended with the proposed guideline of refurbishment process to the current practice.

Figure 1.1 explained the flow chart of research methodology and the details will be represented in Chapter 4.

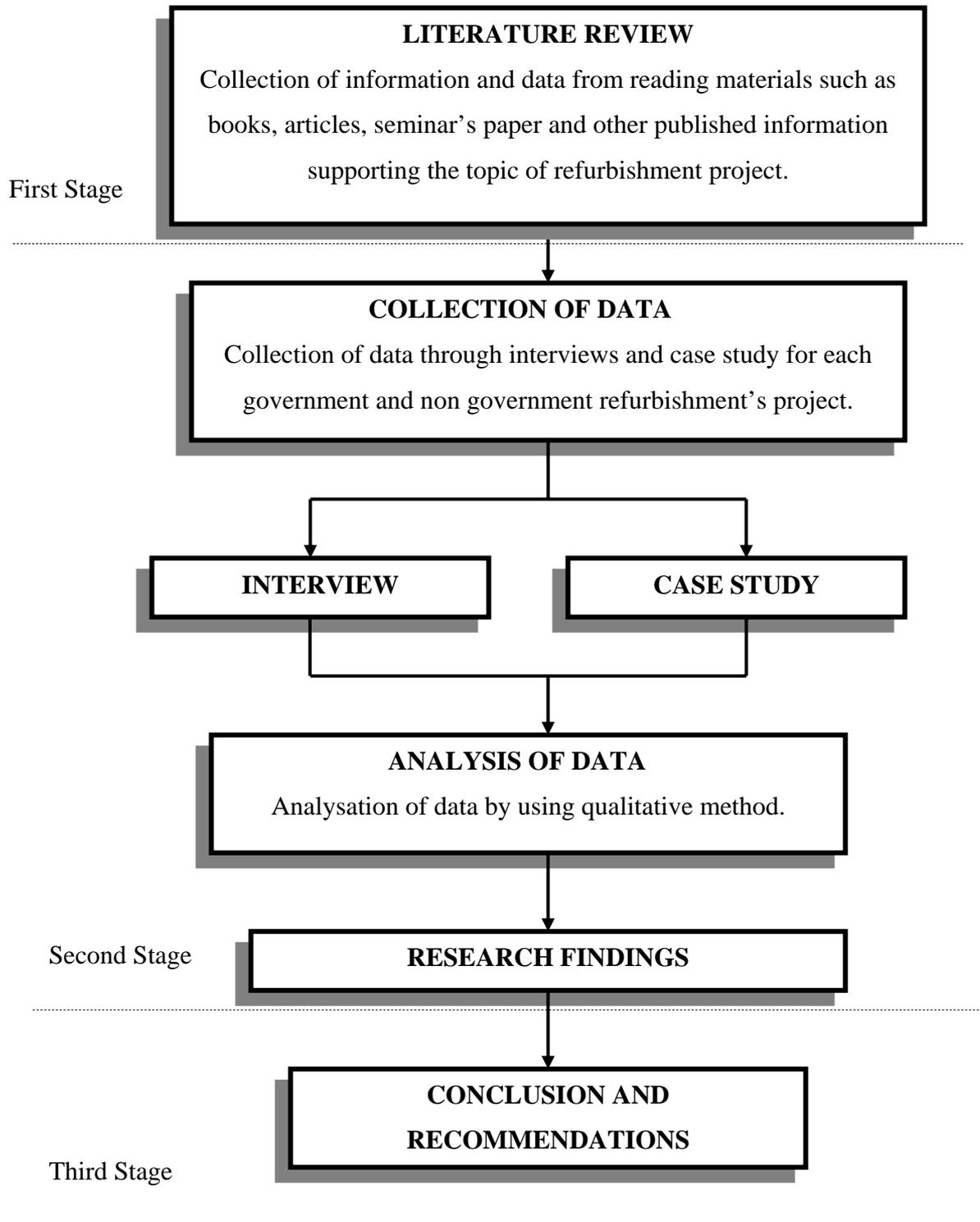


Figure 1.1 : Flow Chart Of Research Methodology

1.5 Scope And Limitation Of Study

The focus of the study is based on refurbishment project implemented by the government and non government organization that are :-

- i) Urban Development Authority (UDA)
- ii) Kuala Lumpur City Hall (DBKL)

This study was confined to the following scopes which cover on the refurbishment process implemented by the two different bodies in Malaysia. Limitation of the study refers to the comparison on refurbishment process as well as highlighting its problem. The identification of problems in carrying the refurbishment project will be based on the case study from the organizations.

CHAPTER 2

REFURBISHMENT: AN OVERVIEW

2.1 Introduction

There is no standard definition of refurbishment. The Chartered Institute of Building (1987) defines refurbishment as the alteration of an existing designed to improve the facilities, rearrange internal areas and/or the structural life span without changing the original function.

However Marsh (1983), defines refurbishment as making use of usable in the ageing building stock, the skilful adaptation of building which is valuable in its own right and not due to any historic mystique new or an updated version of its existing use, if the opportunity is upgrade the accommodation significantly, the project passes into the realms of refurbishment. This definition differs from the CIOB definition in a change in original function is also considered as refurbishment.

Young and Egbu (1993) define refurbishment as to cover a wider scope not limited to alteration and adaptation as defined by the CIOB. Marsh (1983) as well as Young and Egbu's (1993) definition also includes renovation rehabilitation, extension, improvement, conversion, modernisation, fitting out and repair which is undertaken on

an existing building to permit its reuse for various specified purposes. This definition does not include repair and maintenance, which is normally carried out on a continuing routine basis to upkeep buildings to an acceptable standard and consists of work such as daily cleaning, periodic painting or other emergency work. Due to its comprehensiveness and clarity, this definition is used for the purpose of this study.

Literature review also reveals that, like the definition for refurbishment, there are various definitions of project. In 1983, the Project Management Institute (PMI) USA, for example, defines a project as any undertaking with a defined starting point and defined objectives by which completion is identified. In practice, most projects depend on finite or limited resources by which the objectives are to be accomplished. Eleven years later, the PMI changed its project definition to a temporary undertaking to create a unique product or service. Bennett (1980) on the other hand, includes a management function, i.e. coordination in his project definition. He defines a project as consciously coordinated actions of two or more persons or teams aimed at discrete objectives.

One of the major characteristics of construction projects according to Kingdon (1973) is a high degree of complexity, where inputs for example raw materials may be diverse and non-uniform and in which a large number of specialist contributors are required to perform the tasks and production processes, lacking in standardization and routine where feedback loops within the production systems itself may be extensive. Under these conditions, task boundaries are not well defined. Kingdon (1973) argued that the greater the needs for self-regulation and material adjustments, the wider the spread of discretionary authority and the greater the need for direct interaction between subgroups. When the need for self-regulation is great, the effectiveness of bureaucratic organization is limited.

There is a consensus among many construction management writers that refurbishment projects are among the most complex and uncertain of all construction projects. Therefore, the most appropriate definition for a refurbishment project would

be, a refurbishment undertaking of varying degree of complexity and uncertainty that involves the integration across organizational boundaries of groups, departments and organizational.

2.2 Growth And Performance Of Refurbishment

As discussed in the earlier topic there are many reasons for refurbishing a building. In some cases the refurbishment is so extensive that only the original facade remains, the interior being totally reconstructed. This work might be described as restructuring and represents the most extensive form of repair or reconstruction activity associated with existing buildings. Although it is generally more expensive than total demolition and new construction, it may be economically viable due to local planning or tax incentives. For instance, in the United Kingdom buildings originally built before the 1940s can qualify for an increase in the plot ratio allowing a larger lettable area than the equivalent new build structure on the same site. In the case of a building in Finsbury Square in London, two extra floors were added at roof level providing an increase in the lettable area for the client. Obviously the economics of the more costly solution of restructuring needs to be considered against the option of starting again from scratch but achieving a smaller lettable area.

Another important reason for refurbishment is where the facades are of architectural or historical interest, or where there are requirements for maintaining the existing character and appearance of an area. In Europe, many buildings which are being refurbished are basically of masonry construction with relatively low floor-to-ceiling height. The need to retain the existing facade is usually of greater importance to the planners than the retention of the interior structure. This type of refurbishment can mean costly temporary works for restraining the existing façade. In other cases it may be the internal structure which is maintained whilst modifications are made to the facade.