

PRICE DETERMINANT MODEL OF SERVICED APARTMENT
IN JOHOR BAHRU CITY CENTRE

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DEDICATION

I dedicate this master project to my parents, Mr Aziz bin Salim and Mdm Rosminah binti Sarbon for raising me up to be who I am today. Many thanks to my siblings for their willingness to help and patient during my master study.

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ABSTRACT

Today, function of a house has changes from only physical shelter to wealth preservation and also become symbol of achievement. Due to these changes, the price of house also no longer being determined by government but determine by developer. They has freedom to pricing their project and has resulted irregular price patterns that confuses property market participants especially purchasers. In addition, there are only few published academic studies concerning the serviced apartment market. Regarding these matters, this dissertation provides a starting point for formulating a hedonic model of price determinants of service apartment. In order to accomplish this aim, two objectives were formulated; firstly to review the price determinant factors of service apartment and secondly to develop a price determinant model for service apartments in Johor Bahru city centre. To achieve objective number one, study on literature of price determinant of service apartment has been done. It is notable that different study area will have different price determinant factor due to the people sentiment in that study area. While for objective two, the data being collected from transaction data of selected project and SPSS software has been use to analyze the data and generate a hedonic model. Practically, by studying this aspect of property market it will give benefit to developer, investor and potential purchaser during selection of property to purchase. They might identify certain degree of element that significant to service apartment price. It was found that apart from built-up area and number of bathroom, in Johor Bahru city centre, price of service apartment dependent on these attributes; accessibility, distance from Customs, Immigration, and Quarantine Complex , actual view from unit, level of unit and existing of shuttle bus service. As a conclusion, as for service apartment, the price determinant is categorized into three main attribute class namely as location attribute, structural or physical attributes and neighborhood characteristic.

ABSTRAK

Dewasa ini, fungsi rumah semakin berkembang daripada tempat berteduh menjadi lambang kekayaan dan simbol pencapaian. Sejalan dengan perubahan itu, maka harga rumah tidak lagi ditentukan oleh kerajaan tetapi oleh pemaju. Mereka bebas menentukan harga berdasarkan projek dan secara tidak langsung ia mewujudkan ketidakseimbangan corak harga hingga mengelirukan peserta pasaran hartanah terutamanya pembeli. Pada masa sama, hanya sedikit kajian akademik berkaitan pangsapuri perkhidmatan diterbitkan. Sehubungan itu, penulisan ini menjadi titik tolak kepada kerangka model untuk menentukan hubungan antara harga dan penentu pangsapuri perkhidmatan. Dalam usaha mencapai matlamat ini, dua objektif telah dirangka; pertama kajian faktor penentu harga pangspuri perkhidmatan dan kedua membangunkan model penentu harga untuk pangsapuri perkhidmatan di pusat bandar Johor Bahru. Bagi mencapai objektif pertama, kajian penulisan penentu harga pangsapuri perkhidmatan sudah dilaksanakan. Agak ketara perbezaan kawasan kajian menentukan faktor perbezaan disebabkan sentimen penduduk di kawasan kajian. Manakala untuk objektif kedua, data dikumpul daripada transaksi projek terpilih dan perisian SPSS digunakan untuk menganalisa serta menjana model hedonik. Secara praktikal, dengan mengkaji aspek pasaran hartanah ia bakal memberi faedah kepada pemaju, pelabur dan pembeli ketika pemilihan pembelian hartanah. Mereka akan dapat mengenal pasti beberapa tahap tertentu unsur penting penentu harga pangsapuri perkhidmatan. Dapat dikenal pasti di pusat bandar Johor Bahru, selain daripada keluasan binaan dan jumlah bilik mandi, harga pangsapuri perkhidmatan sangat bergantung kepada sifat-sifat berikut; akses, jarak dari Kompleks Kastam, Immigresen dan Kuarantin dan , pemandangan sebenar dari unit, aras unit dan perkhidmatan bas ulang-alik yang disediakan. Secara keseluruhan, penentu harga pangsapuri perkhidmatan dapat dikategorikan kepada tiga kelas utama iaitu keadaan lokasi, struktur atau fizikal dan kejiranan.

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LIST OF ABBREVIATIONS

CBD	-	Central Business District
CCTV	-	Closed-circuit television
CIQ	-	Customs, Immigration, and Quarantine Complex
EPU	-	Economic Planning Unit
IDR	-	Iskandar Development Region
IRDA	-	Iskandar Region Development Authority
JBCC	-	Johor Bahru City Centre
MHPI	-	Malaysian House Price Index
OLS	-	Ordinary Least Squares Model
RM	-	Ringgit Malaysia
SPSS	-	Statistical Package for the Social Sciences
UTC	-	Urban Transformation Centre
WTP	-	Willingness to Pay

CHAPTER 1

INTRODUCTION

1.1 Background of Study

A house is an important asset and contributes to the total asset of many households (Lee, 2009). Due to its unique features and inflation-hedging compared to other types of commodities, houses serve as an asset that preserves the wealth of the home owners. In the Malaysian culture, houses are perceived as a symbol of urbanization, social acceptance, and achievement (Buang, 2010). This motivates Malaysians to purchase houses as their asset. Some people purchase house with a motive of passing down to their descendants while others purchase house solely for investment and create passive income from the rental generated from that investment.

The housing market performance as measured through house prices is an important tool for the investors to evaluate the economic performance of a country (Ebru and Eban, 2011; Algieri, 2013). House prices are affected by demand and supply of dwellings. Changes in the quality of housing demanded will affect the housing supply, causing a direct impact of house price. According to Zheng et al. (2006), demand and supply are of equal importance in terms of economic. To

achieve equilibrium in the housing market, houses must not experience oversupply and/or shortage problems.

The demand for houses is influenced by consumer preferences and changing trends. In the past, houses only function as physical shelter to human. In line with the changing era and human preferences, the functions of houses have now extended from catering basic human needs to desire for quality living. Nowadays, buyers are more concerned about quality characteristics of a house such as location, physical/structure of building and amenities (Tan, 2012; Wu, 2010). According to Hamid (2002), purchasers will only buy a property after high level of decision making process and considering the attributes important to the buyer. To facilitate decision-making, buyers will perform on-site and online surveys (social media) on several residential projects to identify characteristics desired in a house.

Each attribute have different impacts on price. This highly depends on the level of individual buyer's preferences/appreciation on an attribute. Location has huge impacts on prices. Prime or attractive location such as the Central Business District (CBD) area is preferred by the buyers because it is a focal location for economic activities and employment (Alonso, 1964; Muth, 1969; Mills, 1972). In a situation where location for projects is similar, purchasers will evaluate the level of importance of each aspect and criteria of the property. This includes built-up area, number of bedroom and bathroom, design, facilities provided in the property and level of safety in the property itself. In addition, the buyer's preferences have also evolved from basic facilities to modern and trendy facilities. Apartment buyers, especially highly value units/projects equipped with trendy features/facilities such as sky garden, sky swimming pool and urban interior design. Despite the importance of quality characteristics in purchase decisions, the property price has been identified as the first thing that a purchaser will consider before buying a house. Molin et al. (1996) found that house prices are valued twice important than structural attribute and neighborhood to the buyers. In agreement with Molin et al. (1996), Nijestein (2011) conclude that house price ranked first in house buyers preference followed by unit size and bathroom size.

In line with recent advancements in building technology, developers are able to construct houses that fulfil the desire of consumers. To attract more prospective buyers, the developers offer variety of unit types in the market. Serviced apartment projects for instance, come with more than two types to choose and may differ across levels. For example, Sky Habitat serviced apartment offer four unit types that differ across size, number of bedrooms (two bedrooms or three bedrooms), view, and layout to cater the potential buyer's preferences. Various incentives were also introduced by the developers to attract potential buyers and secure sales (Hamid et al., 2012). For instance, some projects come with discount and selling package such as lower down payment and zero legal fees to attract people and secure purchase. In order to cater buyer's preferences, developers will perform a market study to identify effective demand and the right house attributes/package for the right target market. Ultimately, this ensures high profit generation from a project. Finally, the unit prices are determined after considering land and building materials costs, wages of workers, government taxes, and reasonable profit and developer shares.

1.2 Problem Statement

Changes in the housing market from government sector to market oriented sector provide greater freedom and flexibility in design and pricing for developers (Molin et al., 1996). Nonetheless, developers took advantage of their freedom and flexibility by placing unreasonable house prices to generate the highest possible gross development value. In Malaysia, developers are not bound by any laws with respect to profits generation. The developers have full freedom to allocate the profit and developer shares as they wish. Prices have also greatly intensified with incoming foreign investors. There is also no implementation of ceiling prices particularly for serviced apartments. The abuse in price freedom by the developers has resulted in irregular price patterns that confuses property market participants especially purchasers.

House prices are affected by many factors including macro and micro factors. Some of the key literature studying on the impacts of various attributes on house prices includes Aluko (2011), Benson et al. (1998), Zan Yang (2001), and Tan (2011). Among variables used in house pricing studies include structural (physical) and location attributes (Powe et al., 1995; So et al., 1997; Irwin, 2002; Tse, 2002; Cohen and Coughlin, 2008; Anderson et al., 2009; Dziauddin et al., 2013). Despite the breadth of the current literature, there are lack of studies that focus on factors influencing the price of serviced apartments.

In response to these problems, this study proposes to review determinant of serviced apartments price in Johor Bahru. This dissertation provides a starting point for formulating a price determinant model of serviced apartment that quantify the relationship between price and view, distance from CBD, different physical attributes, accessibility and developer profile in serviced apartments in Johor Bahru. Research into this market is essential to add to the body of knowledge particularly for the serviced apartments. In the practical world, this study will give benefit to developers, investors and potential purchasers during property purchase particularly in identifying elements significant to serviced apartment price.

1.3 Research Question

The research questions of this study are:

1. What are the price determinant factors for serviced apartment?
2. What price determinant model that can be applied for serviced apartment?

1.4 Objectives of the study

The research objectives of this study are:

1. To review the price determinant factors of serviced apartment
2. To develop a price determinant model for serviced apartments in Johor Bahru city centre

1.5 Scope of the study

Two (2) major aspects are covered in this research. The first aspect concerns with the price determinant of strata residential property specifically the serviced apartment. The second aspect is the model development for price determinant model of serviced apartment price in the study area.

Johor Bahru city centre is marked as Flagship A for Iskandar Malaysia Development Region. The city consists of various ranges of key landmarks such as, CIQ Complex, the Causeway-link, Sultan Ibrahim Building, the Inner Ring Road, Iskandar Coastal Highway and several notable global financial institutions such as Citigroup, HSBC and Kuwait Finance House. In essence, the city's development is a combination of the financial services commerce and retails, arts and culture, hospitality, urban tourism and many more (Iskandar Malaysia Development, 2016). Located along the main road are two well-known shopping malls namely, City Square and Komtar JBCC. Other amenities located within less than five minutes driving from Johor Bahru City Centre are the General Hospital, Main Post Office and also the Urban Transformation Centre (UTC), a one stop centre for all government institutions which houses in Galleria@Kotaraya. Figure 1 illustrates the study area.



Figure 1.1: Johor Bahru City Centre

(Source from: Iskandar Malaysia, 2016)

The scope of this study is serviced apartments located within the Central Business District of Johor Bahru, Johor Darul Takzim. Six projects to be included in this study are identified from author's observations around the Johor Bahru city centre. All six projects are located within Johor Bahru City Centre focus point such as Sultan Iskandar Complex Customs, Johor Bahru Sentral (public transportation hub), Komtar JBCC and City Square shopping malls.

Further details on the selected case studies will be presented in Chapter Three.

1.6 Significance of the study

a) Developers

Developers planning to build serviced apartments within the CBD area may use the findings from this study as a guide to determine the starting offered selling price of their project. Apart from market study, having knowledge about the values of housing attributes would assist developer in setting the initial offered price.

b) Potential buyers (Investors)

Investors intending to purchase a property in city area are able to identify aspects and factors that give significant impact towards property price. Investors normally survey various projects before investing their money in a project. Here they can refer to the findings of this study to have understanding on the impacts of each attribute towards the price of serviced apartment. This assists investor in making project investment decisions.

c) Potential buyers (Owner-Occupier)

As for home buyers, apart from location, it is important for them to identify factors that influence the price. This research will assist home buyers in identifying which house attributes of the property that they wish to purchase. The rationale is, sometimes the facilities or certain factors are not important to them but they still need to pay for the facilities just because the developer already includes that facility into the project. This can be illustrated if the buyer is buying property as preparations for the old days; they might more interested with indoor facilities and user-friendly facilities such as indoor gym, indoor sauna and have fully furnish package.

d) Valuer

Valuers are professionals that advise on rental price and market value of a property using their knowledge on market conditions. As for serviced apartment, there are various attribute that give impact towards its value such as size, condition, location, zoning legislation and market demand. Valuers can refer the price model from this study as basis for justification of value to advice private and commercial investors, property owners, insurance companies or bank regarding serviced apartment in city centre.

1.7 Methodology of Study

This study begins with identifying the research issues and highlighting the research objectives. As highlighted in the problem statement section (Section 1.2), the main concern for this study is irregularity in price caused by price abuse and lack of monitoring. This problem is further added with limited pricing studies for serviced apartment in the body of literature.

The second stage determines the scope study and significance of study to the various property market participants. This study focuses on serviced apartments located in Johor Bahru City Centre, a city that is bounded within flagship A of Iskandar Malaysia. Estimated prices generated from each serviced apartment attribute are beneficial to developers and potential buyers.

The next process involves review of literatures on serviced apartment and price determinants. This stage begins with reviewing the general definition and features of serviced apartments. In addition, this study also analyses previous

literatures relating to serviced apartment pricing mainly to identify the type of model and variables used in the model (Objective 1).

At the empirical stage, data collection and model development are guided by the theoretical framework as reviewed in the literature review. Prices and physical characteristics of serviced apartments are obtained from site visits. These data are then gone through processes of data cleaning and quantification to prepare for analysis.

Prior to regression analysis, correlation analysis is performed to determine the relationship strengths between independent variables. Regression model is then performed to uncover the implicit prices for each attribute. The model's performance is also evaluated based on a range of statistical tests including R Square, Adjusted R Square, and t-tests. Regression coefficients for each attribute are used to develop a price model for serviced apartment (Objective 2).

The final stage involves data analysis and presentation of the research findings in accordance with the research objectives. The data analysis result is presented in tables and graphs for easy understanding.

A graphical overview on the research process is illustrated in Figure 1.2.

1.8 Arrangement of Chapters

Chapter 1: Background of Study

In general, this chapter provides an overview on the background of the study, which brings up the problem statement and motivation of study. The aim of this thesis is formulated through research objectives, scope of study, significance of study, and methodology of study.

Chapter 2: Literature Review

Chapter 2 provides an overview on serviced apartment definition and price determinants evident in previous studies. Information gathered from this chapter, particularly price determinants will be used as a guide in data collection and analysis to achieve objective of this research. In doing so, this addresses the first objective of the thesis.

Chapter 3: Case Study and Methodology

This chapter continues with the research methodology and case study. It discusses about the hedonic equation and regression approach. This chapter also includes the data collection process and planning, sampling method and analysis tools and methods. The selection of study area and serviced apartment buildings will be detailed out and justified in this chapter.

Chapter 4: Analysis and Findings

Serviced apartment data, collected through site visits will be analyzed using regression method and evaluated through statistical tests. In order to address the second objective, price determinant model for serviced apartments in Johor Bahru

City Centre will be developed based on the regression coefficient results. All findings are presented in tables and figures.

Chapter 5: Conclusions and Recommendations

The last chapter provided a conclusion to the findings and presents recommendations of this research. It summarizes how the study has answered and achieved the research objectives.

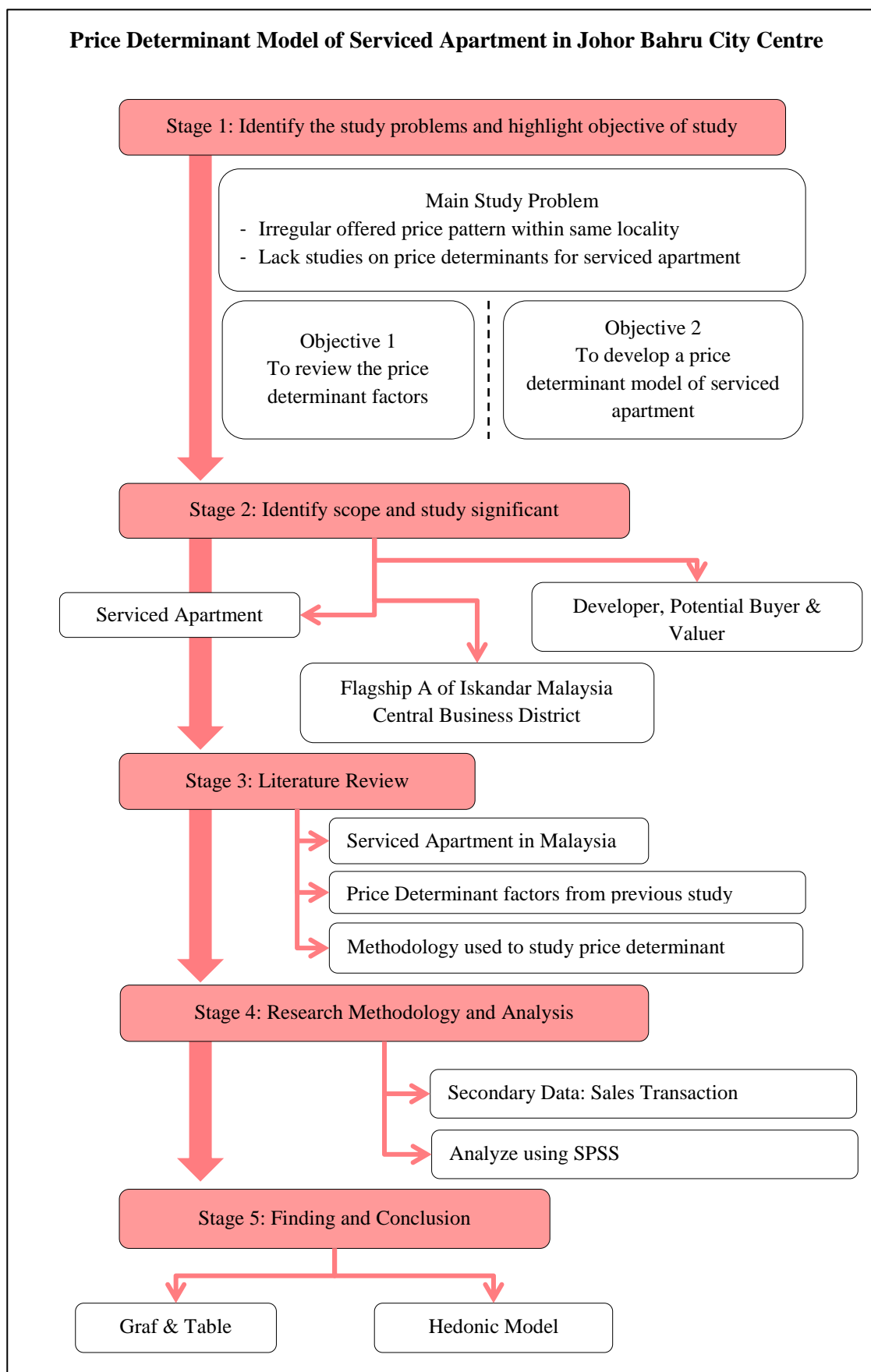


Figure 1.2: Overview of research

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