



Housing Affordability among Middle-Income Earners in Selangor, Malaysia

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Abstract

Significant changes in the Malaysian housing market in the last decade has resulted in critical housing affordability issues among the middle-income earners. This study examines the issue of housing affordability among middle-income earners in Selangor, Malaysia. The main aim of the study is to investigate the effect of housing price, income, housing choice and housing policies on housing affordability. Using a purposive sampling technique, a self-administered questionnaire was distributed to 200 respondents. The results show that housing price, housing choice and housing policies significantly affect housing affordability. Policy implications include building more affordable houses for middle-income earners with no frills.

Keywords: housing affordability; middle-income, M40, Malaysia, SDG

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1.0 Introduction

The change in house prices is explained by basic economic theory of demand and supply as well as the regional economic and demographic factors. At the same time, housing affordability is affected by factors such as income level, monthly commitment, family size, housing supply stock, speculative buying and population changes. However, the situation in Selangor is quite critical. The continued rise in property prices with the construction of more luxurious condominiums has led families in big cities to rent houses instead of owning one. The widespread public concern has attracted policy attention towards the issue. Affordable housing has a variation in definition; however, the primary meaning is 'the ability of one's income to cover the cost of buying a home'. This, in turn, means one's ability to own home shows explicitly the relationship between individual income and house price, which have a significant influence on housing affordability. In a broader definition, to own a suitable property, a person depends on different factors; relative, subjective, purchasing power, repayment ability, and income ability (Gan and Hill 2009; Stone 2006). However, there exists a slight difference in the Australian definition, where it refers to the role of the government in providing suitable housing for the low-income group so that they can afford it.

The middle-income earners are overly concerned because affordability affects not only their ability to become a homeowner but includes the size and type of house they can buy. The current population of Malaysia is 32.6 million, and 40 per cent of them are in the middle-income group. In 2018, the average price of a house in Malaysia was RM416993 (Delmendo, 2019) with a monthly commitment between RM1900 and RM2300. This amount can be accommodated by people receiving a monthly income of RM4360 and RM9619 who fall into the M40 category (Figure 1). However, the house price index in Malaysia dropped to 0.40 per cent in the second quarter of 2020 from 1.90 per cent in the first quarter of 2020 (tradingeconomics.com) showing a good sign for people to buy a house. A Study by

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Khazanah Research Institute, Malaysia (2015) found that the unreachable housing market is serious in Malaysia particularly in Kuala Lumpur and Selangor due to the imbalance in the demand and supply in the housing market.

Household Income Brackets ¹ , RM	Percentage of Households by Income Brackets ¹ , %	Maximum Affordable House Price ^{2,3} , RM
≤ 1,999	8.8	112,200 - 124,700
2,000-3,999	26.1	222,150 - 247,200
4,000-5,999	22.6	318,600 - 354,100
6,000-7,999	14.6	408,300 - 453,600
8,000-9,999	9.3	493,500 - 556,100
10,000-14,999	11.3	699,560 - 777,600

Figure 1: Maximum Affordable House Price by Household Income in Malaysia
Source: Department of Statistics, Malaysia (2018)

Various housing schemes introduced by the government, namely the People's Housing Program (PPR) and Rent to Own (RTO) programme are targeted to the low-income group. There are various Government schemes such as 1Malaysia People's Housing Programme (PR1MA) which aims to encourage people to own their first home and are specifically only for the income group of RM2,500 - RM15,000. Meanwhile, there are programmes which are state-specific such as the Federal Territory Affordable Housing Policy (RUMAWIP), a housing programme for people living in Wilayah Persekutuan and Rumah Selangorku for people of Selangor with focuses on B40 and M40. In addition to housing policies, Malaysians can get financial assistance, i.e. My First Home Scheme and Youth Housing Scheme (YHS), which helps them own a house by reducing their financial burden.

However, besides housing programmes and financial assistance, other factors significantly affect housing affordability and need to be studied. Other significant factors include housing price, individual income and housing choice. Therefore, this paper aims to fill the gap in the existing literature by examining the extent to which housing affordability is affected by the above factors among the middle-income group. The main aim of the study is to examine the effect of housing price, income, housing choice and housing policies on housing affordability in the capital city of Selangor, Shah Alam.

2.0 Literature Review

The spike in high urban growth rates due to migration, population growth and range of income distribution among communities contribute to housing growth (Bujang, Jiram, Zarin, and Anuar, 2015) and this leads to increased demand and even price fluctuations. The level of ability is essential to buy and own residential property. A study conducted by Hassan, Aziz, Bakar and Ahmad (2019) shows that housing affordability is linked to household income, housing costs, housing standards, non-housing costs and location factors. In an earlier study, by Stutz and Kartman (1982), it was found that prices are measured to be the most reliable indicator through market forces. Typically, investor-related housing market opportunists will raise house prices due to increased housing demand and challenges in the housing market is related to a mismatch in demand and supply (Samad, Zainon, Rahim, Lou and Abd Karim, 2017). Meanwhile, developers also state that the increase in construction costs is due to the rise in labour costs (Chong and Khong, 2018).

The RTO scheme enjoyed by B40 for low-cost houses needs to be extended to M40 so that the middle-income group can also enjoy the same benefits (Wai, 2019). A recent study by Li, Qi and Wu (2020) confirm that major cities in China have serious housing challenges due to a shortage in supply, mispricing the asset market and home purchase restrictions. A study in Malaysia done by Zyed, Abd Aziz and Hanif (2016) found that the young population is aware of price changes, and this is a significant factor in owning a home.

Another important factor is the income of the population which plays a vital role in the housing market. Low income has been cited as one of the leading causes of the affordable housing crisis in Malaysia, especially for those living in cities and towns (Hassan et al., 2019). Housing affordability is related to the relationship between housing costs and household income. According to Zyed et al. (2016), there are significant differences in income perception in terms of employment between self-employed, private sector employees and gross monthly salary between respondents.

Housing affordability is also affected by housing choice, which includes house type, ownership, home location, quality of local public goods and neighbourhood. Individuals have the option to rent or own a home, whereas the understanding of housing priorities is essential for home buyers to make a decision. One of the reasons that contribute to the increase in house prices in the central city is due to the strategic location for working citizens (Zainon, Mohd-Rahim, Sulaiman, Abd-Karim and Hamzah (2017) which causes an increase in demand. Bajari and Kahn (2005) show that the problem with affordability is not only based on household income and housing supply but also housing choice.

In terms of housing policy in Malaysia, the Ministry of Housing and Local Government (KPKT) launched the National Housing Policy (NHP) 2.0 for 2018 - 2025 to ensure that all Malaysians, especially the low-income group, have access to adequate and affordable protection (Ministry of Housing and Government Local, 2011). This NHP 2.0 policy is also made to gather public and private sector resources to solve the problem of demand and supply (Leng, 2019). On the other hand, the opportunity to the housing scheme increases as the income increases. Still, they are unable to use this advantage to some extent due to overqualified and inadequate affordable housing (Zainon et al., 2017).

Hence this study intends to fill in the gap by studying whether these factors affect housing affordability among M40 income earners in a city in Selangor.

3.0 Methodology

The study is based on a cross-sectional analysis of working individuals in Shah Alam, the capital city of Selangor. Selangor is the largest economy in terms of Gross Domestic Product and the most developed state with the largest population in Malaysia.

The respondents were selected from the middle-income group (M40) who earn a monthly income between RM4360 and RM9619. To capture the housing affordability issue among the M40 income earners, a purposive sampling technique was used. A self-administered questionnaire was distributed among young, middle-income earners (M40) between the ages of 20 to 35 years old in Shah Alam. The survey was conducted within a two (2) month period; from September until October in 2019, and a total of 200 responses were obtained. From these 200 responses, 83 per cent were usable, while the balance 17 per cent did not meet the income criteria. According to Krejcie & Morgan (1970), if the sampling frame is unknown, the sample size should be 368. However, due to time constraint, only a sample of 200 respondents was given the questionnaire. Besides, this is a preliminary study which had to be completed within a time frame of two months. Therefore, usable data from a sample of 165 respondents were analysed to test the hypotheses and to validate the proposed model.

This study adopts a quantitative survey approach where the questionnaire was adapted from past literature. The dependent variable is affordable housing whilst independent variables are housing prices, individual incomes, housing choices, housing policies and government schemes. The questionnaire contains 25 questions with a five-point Likert scale ranging from 1-5 where 1- refers to strongly disagree and 5- refers to strongly agree. The data were coded and analysed using SPSS 26 using descriptive analysis, reliability analysis, factor analysis, correlation and multiple regression. Each variable score was computed by summing the average scores for all of the question statements.

4.0 Findings

A majority (59%) of the respondents were males with 41 per cent females; with a majority (39%) aged between 30 to 34 years old while 30 per cent were between 25 to 29 years old. In terms of ethnicity, it was quite fairly distributed with Malays comprising 62%, Chinese (22%) and Indians (16%). A majority (67%) of the respondents had a bachelor degree. In terms of marital status, the respondents were equally distributed with 46 per cent single and 47 per cent married. The majority (61%) of the respondents own a house, and the majority earn a monthly income between RM3901-RM5366 and nearly 90 per cent are working at private and public sectors. In terms of working experience, most of them (69 %) have working experience between 6-10 years and 66 per cent have with 1-5 years' work experience.

Preliminary tests were done before the data was regressed. Cronbach alpha values were calculated to assess the internal consistency reliabilities of the scale. The value for the construct of affordable housing, housing prices, individual incomes, housing choices, and housing policies and government schemes were 0.786, 0.972, 0.757, 0.905 and 0.925, respectively. The overall coefficient of reliability was greater than the acceptable level of 0.7 (Hair et al., 2010; Hatcher and O'Rourke, 2013). Factor analysis was done to ensure that all variables were in a different construct. The Kaiser-Meyer-Olkin value was 0.854, which is larger than the recommended value of 0.7 (Hair et al., 1998), which shows that these variables have a distinct construct and are unidimensional. Pearson correlation analysis was used to understand the sample characteristics and level of correlation among variables.

Table 1 presents the correlation value of housing prices, individual incomes, housing choices, and housing policies and government schemes.

Table 1. Inter Correlation between Variables

Construct	1	2	3	4	5
1. Affordable Housing	1				
2. Housing Prices	.784	1			
3. Individual Incomes	.003	-.801	1		
4. Housing Choices	.635	.688*	.009	1	
5. Housing Policies & Govt. Schemes	.163	.120	-.703	-.134	1

The results in Table 2 shows the relationship between affordable housing and other variables tested in the model. It indicates that out of the four-factors, only three factors namely, housing prices, housing choices and housing policies and government schemes, have a positive and significant effect on housing affordability. Individual income is negatively related to housing affordability but is not significant in this study.

Table 2. Estimation Coefficient for Affordable Housing among Respondents

Construct	B	Std. Error	Beta	t	Sig.
Constant	1.137	.224		5.079	.000
Housing Prices	.453	.050	.620	9.129	.000*
Individual Incomes	-.046	.037	-.060	1.264	.208
Housing Choices	.153	.046	.224	3.308	.001*
Housing Policies & Govt. Schemes	.073	.029	.123	2.494	.014**

Note: *1 per cent, ** 5 per cent significant level

The regression model was statistically significant at $P < 0.01$. R squared was 0.65 showing that the three factors significantly explain 65 per cent of the variance in housing affordability. The multiple regression results, show that housing prices ($t = 9.129$, $P < 0.01$), housing choices ($t = 3.308$, $P < 0.01$) and housing policies and government schemes ($t = 2.494$, $P < 0.05$) were found to positively and

significantly influence housing affordable. This fully supports the hypotheses of the model, as illustrated in Table 3.

Table 3: Summary of Results of Hypotheses

No	Hypotheses	Accepted/Rejected
H ₁	Housing Prices play a significant role in housing affordability.	Accepted
H ₃	Housing Choices play a significant role in housing affordability.	Accepted
H ₄	Housing Policies & Govt. Schemes play a significant role in housing affordability.	Accepted

5.0 Discussion

While housing affordability can be affected by microeconomics factors from the individual's perspective and macroeconomic factors, it is interesting to note that both play an equally important role. The findings in this study conform to studies done by Hassan et al. (2019), who found that non-housing costs greatly influence housing affordability. The results also serve to studies by Bajari and Kahn (2005) on the importance of housing choice.

As can be noted in Table 2, housing prices have the highest effect on housing affordability. Even though the standard of living in the area of study is higher compared to other small towns, housing price still emerges as the dominant factor for affordability. The findings conform to studies by Mohd Shoed & Subramaniam (2015) who also showed that young, first-time house buyers were discouraged from their house-buying due to the house prices which were not reachable. Studies were done in Malaysia (Zyed et al., 2016) and even in other countries (Stutz and Kartman, 1982) show that non-price factors are also important determinants of housing affordability.

The findings also reveal that the government schemes and policy initiatives play a significant role in housing affordability. However, lack of awareness, difficulty in securing the policy measure or the price which is not affordable could also be a challenge for house buyers.

6.0 Conclusions and Policy Implication

The empirical study set out to examine four factors which influence housing affordability among middle-income earners in Shah Alam, Selangor, Malaysia. Housing price, individual income, housing choice and housing policies and government schemes were regressed against housing affordability to capture the influence of these factors. Three main conclusions can be drawn from this study. Firstly, housing price, housing choice and government initiatives have a positive and significant effect on housing affordability. Secondly, housing price is a dominant factor in influencing housing affordability. Thirdly, government initiatives and programmes facilitate Malaysians to own a house.

The results of this study have far-reaching implications for government policy. As housing is a basic necessity, appropriate policies need to be designed so that citizens will have access to adequate, affordable and quality homes, particularly for the low and middle-income group. It must be highlighted here that this study focussed on M40 respondents, namely the middle-income earners who earn a monthly income between RM4360 and RM9619. It's pertinent that demand and supply-side factors need to be scrutinised to achieve a balanced equilibrium so that citizens will be able to afford a house.

Looking at the demand side factors, firstly, as the citizens are interested in owning a home within their budget house prices should be controlled. Secondly, housing choice affects affordability where young Malaysians are interested in owning a terrace or link house as long as it's affordable.

Both these factors need supply-side Government intervention where the government should draft out medium-term and long-term policy measures to fit the needs of the citizens. Firstly, the housing scheme policy should control land use and housing type so that more affordable houses are constructed instead of high-rise condominiums or apartments. Secondly, introducing an initiative of a 'rent-for-sale' house scheme; where the tenant can eventually buy the house he or she rents. This initiative, in addition to facilitating house affordability, will also help reduce the abandoned housing projects in urban areas.

This study only examined the M40 income earners in a small city in Selangor. Future research should look at a larger sample to be carried out throughout Malaysia.

Based on the many initiatives by the Malaysian government, it shows that the government is serious in combatting the issue of house affordability among Malaysians in the last decade. However, the point is, how effective are these policies for the M40 or the middle-income earners. Besides, how aware are some of the middle-income earners regarding these Government policies and programmes? More awareness has to be created on both sides, namely the consumer and the producer with regards to addressing this critical issue of basic needs.

Housing is a basic necessity, and also provision of affordable houses is one of the United Nations' Sustainable Development Goals no 11 (SDG). Hence it is very crucial that a more concerted and urgent effort has to be taken by both house developers and government to ensure that a balance can be achieved and more citizens can be able to have a 'roof above their top'.

Paper Contribution to Related Field of Study

This paper adds to the existing literature on factors related to housing affordability among the middle-income (M40) earners in a city in the state with the highest per capita income. The study shows that policies and schemes are important, but price still plays a dominant role in housing affordability.

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References

- Bajari, P., & Kahn, M. E. (2005). Estimating Housing Demand with an Application to Explaining Racial Segregation in Cities. *Journal of Business & Economic Statistics*, 23(1), 20-33.
- Bujang, A. A., Jiram, W. A., Zarin, H. A., & Anuar, F. M. (2015). Measuring the Gen Y Housing Affordability Problem. *International Journal of Trade, Economics and Finance*, 6(1), 22.
- Chong, E., & Khong, F. A. (2018). The Living Wage: Beyond Making Ends Meet. Central Bank of Malaysia, (March), 1–11.
- Delmendo, L. C. (2019). Nigeria's Housing Market Stabilizing, Amidst Improving Economic Conditions. Retrieved from <https://www.globalpropertyguide.com/Africa/Nigeria/Price-History>, retrieved on December 12, 2019.
- Department of Statistics. (2018). Maximum Affordable House Price by Household Income in Malaysia. Kuala Lumpur: Jabatan Perangkaan Malaysia
- Gan, Q., & Hill, R. J. (2009). Measuring Housing Affordability: Looking Beyond the Median. *Journal of Housing Economics*, 18(2), 115-125.
- Hair, J. F., Black, W. C., Balin, B. J., & Anderson, R. E. (2010), *Multivariate Data Analysis*. New York: Maxwell Macmillan International Editions.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998), *Multivariate Data Analysis*. 5th Ed. New Jersey: Prentice-Hall.
- Hassan, I. M. C., Aziz, F. A., Bakar, N. A. A., & Ahmad, N. (2019). Housing Affordability of Middle Income Households in Kuala Lumpur. *Malaysian Journal of Social Sciences and Humanities*, 4(3), 185-191.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Khazanah Research Institute. (2015). Rethinking Housing: Between State, Market and Society. A Special Report for the Formulation of the National Housing Policy (2018 – 2025), Malaysia.
- Leng. (2019). National Housing Policy, 2018-2025. Aims to Combat Record Property Overhang.
- Li, K., Qin, Y., & Wu, J. (2020). Recent Housing Affordability in Urban China: A Comprehensive Overview. *China Economic Review*, 59, 101362.
- Ministry of Housing and Local Government. (2011). Housing in the New Millennium - Malaysian Perspective. Retrieved from <https://ehome.kpkt.gov.my/index.php/pages/view/297>
- Mohd-Rahim, F. A., Zainon, N., Sulaiman, S., Lou, E., & Zulkifli, N. H. (2019). Factors Affecting the Ownership of Low-Cost Housing for Socio-Economic Development in Malaysia. *Journal of Building Performance*, 10(1), 1-16.
- O'Rourke, N., & Hatcher, L. (2013). *A Step-By-Step Approach to Using SAS for Factor Analysis and Structural Equation Modeling*. Sas Institute.
- Samad, D., Zainon, N., Rahim, F. A. M., & Lou, E. (2017). Malaysian Affordability Housing Policies Revisited. *Open House International*, 42(1), 44-51.
- Mohd Shoed, A. A., & Subramaniam, G. (2015) Housing Affordability among Generation Y in Malaysia. A Conceptual Analysis. *Advances in Business Research International Journal*, 1, (1), 16-23.
- Stone, M. E. (2006). What Is Housing Affordability? The Case for the Residual Income Approach. *Housing Policy Debate*, 17(1), 151-184.
- Stutz, F. P., & Kartman, A. E. (1982). Housing Affordability and Spatial Price Variations in the United States. *Economic Geography*, 58(3), 221-235.
- Trading Economics. (2020). Malaysia House Price Index. Retrieved from <https://tradingeconomics.com/malaysia/housing-index>.
- Wai. (2019). Middle-Class Malady. Retrieved from <https://www.thestar.com.my/opinion/columnists/on-the-beat/2019/04/07/middle-class-malady>.
- Zainon, N., Mohd-Rahim, F. A., Sulaiman, S., Abd-Karim, S. B., & Hamzah, A. (2017). Factors Affecting the Demand of Affordable Housing among the Middle-Income Groups in Klang Valley Malaysia. *Journal of Design and Built Environment*, 1-10.
- Zyed, Z. A. S., Abd Aziz, W. N. A. W., & Hanif, N. R. (2016). Housing Affordability Problems among Young Households. *Journal of Surveying, Construction and Property*, 7(1), 1-18.