



HOUSING AFFORDABILITY STRESS AMONG THE MIDDLE-INCOME (M40) GROUP IN JOHOR BAHRU

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Abstract

A house as a place of residence plays an important role towards sustainable development and in improving the wellbeing of the population. The issue of housing, especially the supply and demand of low and low-medium cost housing in cities, rising house prices, quality of housing as well as housing stress has shown that housing is a critical issue that must be addressed. Housing stress usually refers to financial constraints, the reason for the inability to manage the cost of home ownership and housing expenses. Yet financial burden is not the only factor that can contribute to housing stress. There are two types of housing stress, namely physical and emotional factors that may impact negatively on the lives of residents. This paper discusses the affordability housing stress among the middle-income group (M40) that may contribute to housing stress based on a survey of 100 residents of the M40 group in Johor Bahru. The paper discusses the ability of households to rent or buy a house by considering affordable prices, the ability to repay financing, and sufficient income to meet the basic needs of life and a household.

Keywords: Affordability, housing stress, middle income group (M40), income, housing price

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INTRODUCTION

The issue of housing affordability is commonly associated with people of lower and middle incomes. This focus is in accordance with a concept in Malaysia's National Housing Policy known as "1 Keluarga 1 Rumah". This policy's goal is to provide adequate affordable housing for all people, particularly low-income, middle-income and other targeted groups.

Malaysians have a median income of RM 4,500 according to the Department of Statistics Malaysia (2014), showing that households cannot afford to purchase a house for more than RM 300,000 (Samad 2016). However, the cost of houses now exceeds affordability, especially for and M40 age groups, with prices ranging from RM 300,000 to RM 500,000 (NAPIC 2020). Furthermore, the number of houses the middle class is dwindling. According to Yusof (2019), low-cost housing units account for just 3.9% proposed by developers in completed urban areas. This means that the overall number of houses on the market is already inadequate to satisfy existing demand.

Based on the Department of Statistics Malaysia (2020), the average income for the M40 group in 2016 and 2019 was RM 9,619 and RM 10,959. While in Johor in 2016 and 2019 it was RM 6,890 and RM 10,879 (Department of Statistics Malaysia 2020). The 11th Malaysia Plan outlined that the M40 group is the driver of the country's progressive economic and social growth (Mohamed et al. 2020). Therefore, the problem of M40 housing ownership needs to be taken seriously to help this group own their own homes. Houses are considered affordable by the M40 group if they cost less than three (3) times the average annual income, according to studies by Hassan et al. (2019) and Kasmori (2018). As a result, the M40 group's affordable housing ranges from RM 225,900 to RM 250,000.

The problem faced by the M40 group is in terms of the provisions of the current Malaysian housing policy which focuses more on efforts to provide housing for the lower class without making efforts to provide affordable housing to the M40 group (Baqutaya et al. 2016). Furthermore, according to Melati et al. (2019) and Zamri (2020), the mismatch between supply and demand for affordable housing by the M40 group contributes to the problem of housing affordability stress. The M40 group also contends with the constant rise in house prices from year to year, especially in urban areas (Baqutayan 2014). Therefore, this paper intends to fill this research gap and investigate the issue further. This paper will study the level of affordability for the M40s to own a house. It will look at factors that influence M40 housing affordability stress to own a house, and the relationship between levels of affordability with factors that influence M40 housing affordability stress to own a house.

LITERATURE REVIEW
DEFINITION OF M40

Middle-income households known as the M40 group, is a group that shares the same percentage with the total number of low-income households which is 40% (Melati 2019). According to the 11th Malaysia Plan Report, the “M40 households” group is a middle-income 40% household, which refers to households earning between 41% and 80% of the national income distribution as a whole. Table 1 below shows the income classification distribution in Malaysia.

Table1: Income Classification

B40				M40				T20	
B1	B2	B3	B4	M1	M2	M3	M4	T1	T2
Less than	RM2,500	RM3,170	RM3,970	RM4,850	RM5,880	RM7,110	RM8,700	RM10,960	More than
	-	-	-	-	-	-	-	-	RM15,039
	RM2,499	RM3,169	RM3,969	RM4,849	RM5,879	RM7,099	RM8,699	RM10,959	RM15,039

Source: The Department of Statistics Malaysia (2019)

HOUSING AFFORDABILITY

According to Bujang et al. (2010), affordability is a person's willingness to provide something, which is sometimes referred to as a person's financial ability. It shows the people's financial ability to buy or rent a home. According to Anirban et al. (2006), housing affordability is a state in which people may save a larger income to buy a house while still paying for other expenses during their working years. Household incomes and expenditures are used to determine housing affordability. This idea involves a variety of topics, including housing price distribution, home quality and income, household borrowing capacity, government regulations, and housing market circumstances (Linneman & Mebololugbe 1992).

The ability to repay all of the costs involved in the process of purchasing a house is indicated by an individual's income and ability to repay all of the costs included in the process of buying a house (Whitehead 2009). According to Suhaida et. al (2011), housing affordability is one of the most important indicators of a country's socioeconomic stability and growth. Housing affordability is to ensure that housing is affordable to people of all income levels, whether they are low-income, middle-income, or high-income. Housing has been recognized by the Malaysian government as a basic human necessity and an essential component of the urban economy. The My First Home Scheme programme allows young people earning less than RM3,000 per month to get a 100 percent loan for a housing cost between RM100,000 and RM220,000 with a 30-year repayment period.

HOUSING AFFORDABILITY STRESS

Housing affordability stress, according to Bujang (2006) and the United States Department of Housing and Urban Development (2002), is defined as a family spending more than 30% of their income on housing and having difficulty meeting basic needs such as food, clothing, transportation, and medical care. The 30:40 rule, which claims that a person is under housing stress if housing expenditures exceed 30% of the household income and they are in the lowest 40% of the income distribution, is a widely used measure of housing stress, according to Yates (2007). The best measure for measuring home affordability stress, according to Marks and Sedgwick (2008), is gross income; however, Stone, Burke and Ralston (2011) suggest that purchasing power is the best predictor. According to Yates (2006), low- income groups, teens, households with only one adult, and tenants are among those who face housing affordability stress and financial difficulty.

Housing affordability stress and housing affordability in an environment of sufficient income, according to the Australian Housing and Urban Research Institution (AHURI) (2012), households should not bear the unreasonable housing cost on their income, based on the concepts introduced by MacLennan and Williams (1990). According to Yates (2007), if a low- income household spends at least 30% of their income on housing, the condition is referred to as housing affordability stress.

FACTORS INFLUENCING HOUSING AFFORDABILITY STRESS

There are factors of variables that have had a significant influence on housing affordability stress, including:

a) Housing Price

Rising house prices, among other financial indicators, have added to the M40's desire to buy a home. The majority of big metropolitan areas have seen a rise in home prices and rentals, and this pattern is projected to continue year by year (Nooriah & Jamaluddin 2018). Housing prices in Malaysia have risen rapidly in recent years, with this upward trend emerging mostly in urban areas. Furthermore, in most countries including Malaysia, the problem of quality housing availability in terms of price and efficiency, as well as increasing housing prices, has become a major concern (Noriah 2019).

b) Deposit

Problems in accessing down payments for home purchases put households under stress. Since they do not have enough savings, certain households are required to put a 10% down payment on a house. Not just that, but the M40 group's difficulty in accessing a loan has put them under housing affordability stress. The issue

regarding M40 housing loans is that they have to compete with high loan interest rates, which makes it difficult for the M40s to make loan repayments (Baqutaya et al. 2016). Furthermore, strict requirements for securing a housing loan have a significant impact on the M40's ability to access it (Tukiman 2014).

c) Cost Of Living

According to Zulkiply (2016), Malaysia's monthly household income was RM 3,250 in 2004 and RM 6,141 in 2014; an increase of 89% in 10 years. According to the Consumer Price Index (CPI) of the Malaysian Department of Statistics, the market grew by 29% over a 10-year stretch, from 2005 to 2015. Prices are rising at a slower rate than household incomes have increased. This means that if a household's consumption habits do not change, the rise in costs would force the household to deal with the stress of insufficient revenue. The result would place indirect pressure on households for struggling to fulfil the requirements to purchase and afford their own homes.

d) Income

The purchasing power factor is the amount of money and ability to select on a monthly basis. The purchasing power of an individual has an impact on their ability to own a house. Income level is one of the indicators in buyers' selection of residential goods, according to Majid et al. (2012), because it can generate demand for the right to own a home in accordance with local living standards. This is because household income is one of the factors that influence their decision-making and willingness to pay for a home that satisfies their needs and wants (Ismail 2020).

The M40 group's housing affordability stress is also closely related to financial or income hardship (Rowley & Ong 2012). The effect of increasing costs of living and daily expenses has resulted in households being unable to afford to buy a home (Yates 2007). Hulse et al. (2010) looked at indices of financial distress on household spending, such as the failure to pay bills on time. According to Yates (2007), households in housing affordability stress are categorised as being in certain (high) financial stress if they show one or more indicators of financial stress in household spending.

e) Loans

High monthly instalment payments become a burden to borrowers to buy a home. Most individuals lose their homes because they had to be auctioned off due to an inability to pay high monthly instalments (The Standard Bank of South Africa 2010). One of the measures used by banks in determining whether a person is able to repay a loan is the amount of loan payments. The monthly instalment must not exceed one-third of the total income of a borrower.

f) Interest

According to Holt (2007), increases in house prices, loan interest rates, utilities and property taxes have a correlation with the level of affordability as well as home purchase. However, according to McCord et al. (2011), the right to own a home can be classified into two concepts, namely the ability of first-time buyers to purchase a home and the ability of households to retain home ownership by repayment of borrowed funds.

The loan interest rate consists of the Base Lending Rate (BLR) which will be mixed with the interest rate charged by the profit margin by the bank. BLR is the minimum interest rate calculated by a banking institution based on its basic formula and taking into account the cost of institutional funds and administrative costs. The BLR rate is set by the Central Bank of Malaysia. Based on a report released by Bank Negara Malaysia, the current BLR rate is 6.6%.

METHODOLOGY

Primary and secondary data are used in this study to achieve the paper's goal. To collect primary data, a questionnaire was distributed throughout the demographic research region. Secondary data was gathered from journals, articles, conference papers, books, the internet, newspapers, and other related publications.

Identification of topics was followed by a literature review, a case study, data collection, analysis, and interpretation of research findings. Questionnaires were used to collect primary data from respondents, while literature reviews were utilised to collect secondary data for the study. The formula of Taro Yamane (1973) was used to estimate the number of respondents for the study. The level of confidence in this calculation is 90% of the total population of 392,000 people. The minimum number of responders or sample size required, according to the Taro Yamane formula, is 100 people. The questionnaires, on either side, were distributed at random and 100 were returned. Frequency, Likert Scale, Cross Tabulation, and Correlation Analysis were used to examine data in this study. SPSS (Statistical Package for the Social Sciences) software was used to analyse all the data collected. For 'ranking' and the degree of importance among the factors, frequency analysis and Likert Scale were used. The relationship between income and the level of affordability for M40s to own a home was analysed using cross tabulation analysis. Meanwhile, significant relationships between variables and household incomes were identified using the Pearson's Chi Square analysis and correlation analysis.

ANALYSIS AND RESULT

The survey questionnaire is divided into 4 parts and analysed using the procedures described above. The results and findings of the study were then split into four categories. The first section contains information on the respondent's socioeconomic situation, followed by the level of housing affordability, factors

that influence housing affordability stress with M40s, and finally, the relationship between factors with income.

The result in respondent profile analysis shows that the majority of the respondents were Malay, aged between 31 and 45. Most are from government and private sectors with medium and higher educational backgrounds.

Table 2 shows the analysis on respondent’s housing status, and Table 3 shows their monthly income level.

Table 2: Housing Status

Homeownership	Frequency	Percentage
Own	72	72%
Rent	28	28%
Total	100	100%

Table 2 shows most of the respondents have their own home (72%), while 28% of respondents are still renting. From Table 1, it can be concluded that more than half of the M40 respondents in this study are able to own their own house and the rest are still unable to buy and own their own house.

Table 3: Monthly income level

Income	Frequency	Percentage
RM4001-RM4500	10	10%
RM4501-RM5000	11	11%
RM5001-RM5500	7	7%
RM5501-RM6000	7	7%
RM6001-RM6500	8	8%
RM6501-RM7000	5	5%
RM7001-RM7500	3	3%
RM7501-RM8000	2	2%
>RM8000		

Table 3 shows the majority of the respondent’s (35%) monthly income is above RM 8,000, 11% of the respondents have an income between RM 4,501 and RM 5,000 and 10% between RM 4,001 and RM 4,500. From Tables 2 and 3 above, it can be concluded that most of the respondents have a stable income.

Table 4: Relationship between Household Incomes and Types of Affordable Housing

Income	Types of houses										House Village Total
	1-storey house	2-storey house	Semi-D	Condominium	Apartment	Bungalow	Townhouse	Lower Cost Flat	Quarters	House Village	
RM4,000- RM4,500	5	3	0	1	0	0	0	3	0	0	12
RM4,501- RM5,000	5	1	0	2	0	0	0	0	2	2	12
RM5,001- RM5,500	5	1	0	0	1	0	0	1	0	1	9
RM5,501- RM6,000	6	2	0	0	0	0	1	0	0	1	10
RM6,001- RM6,500	4	3	0	0	0	0	0	1	1	0	9
RM6,501- RM7,000	1	0	0	1	0	0	0	1	0	0	3
RM7,001- RM7,500	1	2	0	0	0	0	0	0	0	0	3
RM7,501- RM8,000	1	1	0	0	0	1	0	0	0	0	3
>RM8,001	7	13	12	2	1	0	2	0	2	0	39
Total	35	26	12	6	2	1	3	6	5	4	100

Table 4 shows the analysis using cross tabulation on the relationship between household incomes and affordable housing, while Table 5 shows the relationship between household incomes and affordable housing prices. As shown in Table 4, the majority of respondents who prefer to own either single or double storey houses are those with a monthly income of RM 8,001 and above. In addition, those who earned between RM 4,001 to RM 5,000 also prefer to buy single or double storey houses. Thus, it can be concluded that monthly income, housing market price and types of housing are interrelated between one another when considering respondent affordability.

Next, Table 5 will show the housing price preferred by the respondents based on their income levels.

Table 5: Relationship between Household Incomes and Affordable Housing Prices

Income	Housing Prices											Total		
	<RM100,000	RM100,000-1-0	RM150,000-0	RM150,000-1-0	RM200,000-0	RM200,000-1-0	RM250,000-0	RM250,000-1-0	RM300,000-0	RM300,000-1-0	RM350,000-0		RM350,000-1-0	>RM400,000
RM4,000- RM4,500	2	1	5	4	0	0	0	0	0	0	0	0	0	12
RM4,501- RM5,000	3	1	5	2	0	0	0	0	0	0	1	0	0	12
RM5,001- RM5,500	3	2	2	1	0	0	0	0	0	0	0	1	0	9
RM5,501- RM6,000	5	0	0	2	1	0	0	0	0	0	2	0	0	10
RM6,001- RM6,500	2	2	2	1	0	0	0	0	1	0	0	1	0	9
RM6,501- RM7,000	2	0	1	1	1	1	0	0	0	0	0	0	0	5
RM7,001- RM7,500	0	0	0	1	1	1	1	0	0	0	0	1	1	3
RM7,501- RM8,000	0	0	0	0	0	1	1	1	1	1	0	1	1	3
>RM8,001	0	1	8	7	7	7	7	7	3	5	8	8	39	
Total	17	7	23	19	11	5	8	12	5	8	12	8	100	

The result from Table 5 shows that most respondents with monthly incomes of RM 8,000 and above can afford houses between RM 150,000 and RM 250,000. As a conclusion, housing affordability may be determined based on the house price they can afford to buy and their income. Average house prices, for example, relate to average earning incomes, but lower quartile earnings correlate to lower quartile house prices.

Table 6: Factors influencing housing affordability stress in M40s to own a house

Scale Categories	Index Range	Factors Influencing Affordable Housing Stress among M40s	Min
Strongly Influential	4.27 – 4.41	Economic factors	4.41
		Demographic factors	4.27
Influential	4.13 – 4.26	Environment factors	4.18
Natural	3.99 – 4.12	Housing market factors	4.10
		Housing stress factors	4.08
Uninfluential	3.85 – 3.98	Social factors	3.87
Strongly Uninfluential	3.71 – 3.84	Housing needs factors	3.84

From the analysis carried out in Table 6, the most influenced factor for housing affordability stress among M40s is the economic factor which is too high, with a total score of 4.41. Demographic factor is recorded as the second highest factor that influences this problem, with an average score of 4.27. The next factor is the environment factor with a total score of 4.18. From Table 6, it can be concluded that the social factor and housing need factor have not influenced housing affordability stress in M40s to own a house.

The Pearson Chi-Square test was then utilised to study the relationship between group frequency differences, homeownership, and housing affordability; influencing factors that are all linked (Bujang 2010). The study of the factors that influence housing affordability and income is shown in Table 7.

Table 7: Summary of Analysis on factors that influence the housing affordability stress in M40s and income by Using Pearson's Chi-Square

		Asymp.Sig.	Relationship
	HOUSING NEEDS		
a)	High cost of living	0.01	Significant
b)	High monthly payments over 30% of income	.000	Significant
	ECONOMIC FACTORS		
a)	Rising house prices	.038	Significant
b)	Installments are too high for a suitable and desirable home (low purchasing power)	.002	Significant
c)	The supply of M40 housing is small	.021	Significant
d)	The home financing loan process is difficult and tight	.002	Significant
e)	High interest rates	.001	Significant
f)	Long repayment period	.027	Significant
	ENVIRONMENT FACTORS		
a)	The quality of the house offered affects the price of the house	.022	Significant
b)	The basic facilities provided require the payment of high management charges	.024	Significant
	HOUSING STRESS		
a)	Physically and emotionally disturbed and are influenced by the environment	.000	Significant

Table 7 shows the results of Pearson's Chi-Square analysis on the factors that influence housing affordability stress in M40s to own a home. This sort of analysis requires a significant value of less than 0.05 (Tasir & Abu 2005). Based on the above analysis it is concluded that only 12 factors have significant value which is less than 0.05. Thus, it can be concluded that these 12 factors are the most influencing factors on the housing affordability stress in M40s to own a house.

According to the results of the Bivariate Correlation, there is a strong correlation between the 10 factors that influence the housing affordability stress in M40s to own a house. The baseline set of 0.01 is much less than the majority of the factors that have been correlated. As a result, it is possible to conclude that all of the factors are related to previous studies.

FINDINGS

Based on the analysis and literature review, we can conclude that house prices influence the M40 group's affordability to own a house. House prices determine an individual's willingness to pay the price established by the market or developer, according to Gwin and Ong (2004). In addition, the number of households has an influence in M40's affordability to own house.

In this case study, a majority of M40s in Johor Bahru have a stable income with their monthly income between RM 4,001 and RM 8,000 and above. However, M40s have a stable income but most of them choose house price as one of the main factors when considering to buy a house, as it is highly dependent on their monthly income. Their affordability to buy and own a house is within the price range of between RM 150,000 to RM 250, 000, either single or double storey. For M40s who earned less than RM 4,000, they can also afford to own the same style of house, but with a price of below RM 150,000 per unit. Thus, it can be concluded that the majority of housing affordability for M40s in Johor Bahru depends on the type of house, which are single storey terrace houses and double storey terrace houses, with prices ranging between RM 150,000 to RM 250,000 per unit.

Factors influencing housing affordability stress in M40s in Johor Bahru are economic, demographic and also environment factors. Economic factors are rising house prices, deposit, expenses pattern, interest rates and payment period have contributed to the M40's stress to own a home. An increase in the cost of housing will simultaneously increase house prices and put stress on households to buy and own their own homes. As the number of households increase, so does the cost of daily necessities for the whole family. With a fixed amount of income, but an increasing number of households, indirectly puts stress on the head of the family to cover expenses for the whole family. Thus, it can be concluded that the housing needs, social factors, housing market and also stress do not really influence the housing affordability stress in M40s at Johor Bharu to own a house.

CONCLUSION

Due to the high cost of living in Johor Bahru, the results of the analysis and conclusions of the study show that the level of housing affordability of M40 households is lower than the acceptable eligibility in terms of house prices and types of houses. The affordability level of M40 housing in Johor Bahru is one-storey and two-storey terrace homes with a price not above RM 250,000, as

shown by the large number of respondents who have either purchased or do not yet own a property. Considerations in determining the M40 housing affordability stress must take into account economic, demographic and also environmental factors as these three factors affect the M40 housing affordability stress in Johor Bahru. In this regard, the government needs to improve their policy of setting the maximum price of houses in the market between RM 300,000 and RM 400,000. This needs to be re-evaluated with the needs and actual income of M40 households to ensure success and realise the goals of the National Housing Policy.

ACKNOWLEDGEMENT

The work is supported by the Research Management Centre of Universiti Teknologi Malaysia (UTM) and the Ministry of Higher Education (Malaysia) under the Fundamental Research Grant Scheme (FRGS) FRGS/1/2022/SS04/UTM/02/7 (5F550).

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Received: 19th December 2022. Accepted: 19th June 2023