

# Housing Affordability Stress Among Generation Y In Johor Bahru, Malaysia

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**Abstract:** Nowadays, a significant number of households are still unable to afford to buy their own houses due to the high prices on the market. However, household income is also at odds with the market price of housing. Housing affordability stress, therefore, refers to a situation in which households spend only 30% of their income on housing costs. Therefore, two research objectives were set. The first objective is to identify factors affecting the stress of housing affordability between Gen Y. The second objective is to examine the relationship between income and house prices affecting the stress of housing affordability. Data are collected through secondary sources and information provided by respondents through questionnaire surveys. The data are then analyzed using the Social Sciences Statistical Package (SPSS). Method of data analysis includes Frequency Analysis, Likert Scale Analysis, Cross Tabulation Analysis and Pearson Chi-Square Analysis. The results show that 67 respondents still haven't had their own house and they live with their families or still rent a house. Just 33 respondents own their own house and most purchase just RM200,000 to RM250,000 one-storey terrace homes. The high house price provided, household income is not parallel to the current economy and high down payment and other charges are three factors that strongly influence the housing affordability pressure.

**Index Terms:** Gen Y, affordability, housing stress, Malaysia, factors, influence, income

## 1. INTRODUCTION

House is a basic thing that every individual needs as a shelter. However, without high income that match the price offered in the market is an added problem to many individuals. According to Vera-Toscano and Ateca-Amestoy (2008), the home is a place where many, especially the elderly, spend most of their time. House is also one of the elements included in the expenditure on income for each individual or household and it is likely that they will allocate some percentage of their salary to owning or renting a house. In addition, it can be understood with a view to having adequate basic standards of housing and providing reasonable access to employment and community services and is available at a cost that does not cause enough hardship for the occupants (Disney, 2006). While the house is the basic thing for every human being, we must measure our own affordability of renting, buying the house. SGS Economics and Planning (2012) states that affordability is correlated with open financial facilities where access is available for households from all income groups. But the problem of household incapacity is closely related to the household income of the person. In addition, residential property prices are seen to increase every year and are not consistent with household income. The problem of being unable to own a house indirectly results in pressure on the availability of housing. Housing affordability stress can also be measured by housing expenditure which should not exceed 30% of income. This statement is supported by Babade (2007), which requires the ability to be equal to or slightly more than twice the annual household income; or rent a house not more than 30% of the total monthly household income. Based on the house price index issued by the Department of Values and Property Services, The average house price increased in the first two quarters of 2017. In the first quarter of 2017, the average price for all homes in Malaysia was RM395,526. While the average house price rose

to RM397,190 in the second quarter of 2017. Indirectly, the average house price could also indicate that the price of this house cannot be owned by the B40s of the lower income group and the M40s of the middle income group in that country. As a result, the rise in housing prices in some states is high and causes some group income earners to face difficulties in owning a home. Indirectly, they may experience housing affordability stress as if households spend their money more than their income capacity just to buy a home, which can be called housing affordability stress (Bujang, 2006) and the United States Department of Housing and Urban Development (HUD, 2002).

## 2 LITERATURE REVIEW

### 2.1 Generation Y

Statistics from the Australian Bureau classify Generation Y as a child born between 1983 and 2000, while it is classified as a generation born between 1980 and 1990 to the United Kingdom and the United States (Gibson, 2013). Since there is no exact date for determining when Gen Y begins and ends, it depends on demographics and many used birth dates from mid-1970s to early 1994 (Bujang et al., 2015).

### 2.2 Housing Affordability

Housing affordability is generally measured in terms of housing costs relative to household income, family income or individual income (Baqtayan, 2016). Housing affordability aims to ensure that available housing is affordable for every income earner group, whether they are low-income, middle-income and high-income (Suhaida et al. 2011). In other words, housing affordability refers to a situation where one has the potential to save some of their income by buying a house and paying other expenses during their tenure (Anirban et al., 2006). Saying that, in terms of housing affordability in Malaysia, monthly installments of loans should not exceed 1/3 of household gross monthly income (MacDonald, 2011).

### 2.3 Affordable Housing

Affordable housing can be broadly defined as adequate standard basic housing, providing affordable access to employment opportunities and providing residents with no cost

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(Disney, 2006). Affordable housing is defined as anything in terms of quality and location and does not cost much and prevent households from paying basic living costs and does not jeopardize human rights (UN-Habitat, 2011). In general, affordable housing includes households' ability to obtain housing benefits; it involves in particular the relationship between household income and rates or payments (Zebardast, 2006).

#### **2.4 Housing Affordability Stress**

When households pay more than 30 per cent of their income for housing and at least 40 per cent of their incomes are considered to be under stress of affordability of housing (National Housing Strategy, 1991). If households are low-income groups that allocate at least 30% or more of their income to meet the cost of housing, the situation is defined as housing stress (Yates, 2007).

#### **2.5 Factors Influence Housing Affordability Stress**

There are some factors that may influence housing affordability stress based on some reading materials, such as related past research, articles and journals.

##### **2.5.1 House Price**

Second Finance Minister, said in the first quarter of 2017, there were approximately 130,000 unsold luxury properties priced above RM250,000, as these luxury units were considered only affordable to 58 percent of households in Malaysia. According to Tan (2011) house prices are a motivation that explains residential housing activities. House prices are an important factor in the sale and purchase of transactions. House prices can determine whether or not the project is successful.

##### **2.5.2 Financial Institution**

Financial institutions also have an effect on housing transactions. They provide loan facilities to help buyers owning a house/ houses. According to Mohamad et al. (2011) financial policies such as interest rates imposed by financial institutions, repayment terms, legal policies and eligibility for loans may have an impact on the success of the sale of residential properties. The difficulty of obtaining financial support from banks and financial institutions has an impact on property ownership. The eligibility to guarantee any amount of loan or final financing will depend on the amount of household income and expenditure (Bujang and Abu Zarin, 2006). This will have an impact on middle and low income groups in obtaining mortgage loans if their income is low and the benchmark set by the financial institution is not met.

##### **2.5.3 Household Type**

here are a number of factors that influence one's ability to own a house. Norazmawati (2007) suggests that household income, household expenditure, employment, education and household employment are key variables affecting the ability to own a house. According to Gyourko and Linneman (1996), apart from the factor of income and house prices that can demonstrate the willingness of a person to pay home installments, the affordability of housing can also be seen through the level of education and the type of employment. This is because the education level can indirectly reflect a person's type of occupation as well as the income or salary that they earn each month.

#### **2.5.4 Income Pattern**

The level of affordability of home ownership in Malaysia is largely determined by market prices for household income and housing (Zairul et al., 2015). This is because every household needs to look into their income if they can afford to buy a house or not in order to own a house. According to Worthington (2012), income affects not only the ability to own directly, but also the demand for residential property. This is because household life also improves when income increases (Nyasulu and Cloete, 2007). As household income increases, so does the standard of living of the household, as the ability to buy houses has increased. Households can therefore buy houses of higher quality. High income also helps banks obtain mortgage loans from households.

#### **2.5.5 National Housing Policy**

According to Dato ' Ahmad Bin Haji Kabit, Secretary-General of the Ministry of Housing and Local Government, the National Housing Policy (NHP) was established to outline the direction and serve as the basis for the planning and development of federal, state and local housing. The goal of the DRN is to provide adequate, comfortable, quality and affordable housing to improve people's well-being. The challenge of housing policy in developing countries over the past few decades, according to Harrisa and Arku(2007), is to ensure that the basic needs are met at a reasonable price for the majority of citizens. While the National Housing Policy has been adopted, achieving all of the goals and objectives as set out in the policy is a major challenge.

#### **2.5.6 Demography**

Demographic development is one of the conditions that led to this price on the market, according to Bujang et al. (2015). Mulder (2006) defines demographics as a human population study by highlighting the statistical analysis of the quantities and criteria of humanity living in certain areas, especially in relation to their age, how much money they have and what they spend. Long-term housing prices are important demographic factors (Idrus and Ho, 2008).

#### **2.5.7 Renting**

The lack of affordable housing has prompted some of the people who cannot afford to buy a house to choose other options such as renting a house. This concern has been growing rapidly due to the increase in the cost of buying a house which has forced many young families to rent real estate (Baqutayan, 2016). Vliet (1998) raises the issue of high cost housing has raised the spirit of young people to rent rather than buying houses. The alternatives used by those who cannot afford to buy a house, with only rent can give them temporary shelter before they can have their own house.

#### **2.5.8 Location**

The most significant factor affecting the affordability of housing is the price, location and socio-economic environment (Rossi, 1955). In Malaysia, nearly 10 million residents live in urban areas such as Kuala Lumpur, Penang, Selangor and Johor Bahru, according to the Statistics Department of Malaysia (2013). According to Zairul et al. (2015), the price of land in urban areas is rising and, as a result, house prices are rising. It can therefore be concluded that stress on affordability of housing occurs in urban areas, as households need to spend more on housing costs than in rural areas. This is supported

by Phillips et al. (2006) that the stress on affordability of housing is more prevalent in urban areas and among rented households.

### 2.5.9 Lifestyle

There are different lifestyle trends that are followed by different levels of society, such as some people who like security and privacy, residential areas that are always guarded by security guards, swimming pools and others. This is supported by Ling (2014) where the current lifestyle trend is changing to a better quality of life where homebuyers want a home that is not just a home-based and value-added feature. Amira (2015) states that value added is a factor in the increase in house prices, such as safety, privacy, covered parking areas, swimming pools and others. House developments in the future should also be taken into account for builders when constructing houses (Osmadi et al., 2015).

### 2.5.10 Household Expenditure

Housing affordability can be attributed to household prices. Household expenditure provides an overview of the expense that each household needs to meet its living standards. The pattern of expenditure is said to determine the affordability of an individual to buy a house. This is because the consumption trend can provide a benchmark for the amount of money that can then be spent on housing. Generation Y is also seen to be linked to various commitments, such as the repayment of education loans, vehicle loans as well as personal loans. It is even more worrying that credit card loans are made at a young age so that their monthly expenses are high that they affect household affordability. As a result, households need to control their spending patterns so that they can allocate some of their income to purchase a home.

## 3 METHODS

This research reflects on the effect of Generation Y housing on affordability in Johor Bahru. Secondary information and main data will be used to meet all of the two goals set out in this study. Secondary data is collected as a reference by reading articles and reviews related to the work topic. Secondary data is commonly used in the study and is usually collected from published materials and existing literature, while primary data was obtained from questionnaire surveys. For this study the quantitative method is used to collect data from field survey to help achieve research objectives. Quantitative methods rely on numerical analysis, quantitative measurement and statistics of data collected by questionnaires. This method uses numbers as its basis for generalizations of a phenomenon. These numbers originate from the objective measurement scales of the analysis units referred to as variables. There are two variables depending on the variable and the independent variable. There are four types of measurement scales which are nominal, ordinal, interval and ratio. The questionnaire will be sent to the respondents to obtain their opinion on the issue of housing affordability stress. All respondents living in the Johor Bahru area, age between 19 and 38 years of age. Respondents need to fill in all socio-economic information, housing ownership status and factors that influence housing affordability stress. Taro Yamane Formula is useful for the determination of the sample. Sampling is the process of selecting a number of subjects from the population to be the study respondents. The main purpose of sampling is to illustrate the general population as a whole. The study sample

consisted of residents of Johor Bahru. The distribution of the survey was randomized in the study area. Diagram 1 shows the Taro Yamane Formula to determine how many samples are needed for this study.

<Insert Fig 1 : Taro Yamane Formula here>

The questionnaire has been distributed to 100 respondents. The number of respondents was determined at 90% confidence level using the Taro Yamane Formula (1973). The data is then analyzed using the Social Sciences Statistical Package (SPSS). All data was analyzed using Frequency Analysis, Likert Scale Analysis, Cross Tabulation Analysis and Pearson-Chi-Square Analysis. Each answer was summarized and recorded in percentages in order to make quantitative comparisons. Accordingly, the results of the Higher Frequency and Percent Response analysis indicate that data is a priority and that it is important for most of the respondents involved. Likert Scale is a form of measurement that measures views, attitudes, opinions, perceptions, etc. The Likert scale and the degree of importance factor are used to analyze the ranking for each factor. Majid (1990) argues that a similar scale is chosen because it has a high degree of reliability. This method is used in this study to measure the degree of impact on factors affecting Generation Y housing affordability stress. Cross-tab analysis is a two-way analysis where the relationship between the two variables can be identified when they are merged. Based on this study, this method is used to examine the relationship between two variables related to housing affordability. The Pearson Chi-Square method is used to determine whether there is a relationship between two variables that are independent and dependent. According to Zaidatun and MohdSalleh (2003), the Pearson Chi-Square analysis shows that the value between 0.000 and 0.05 is considered significant. The statement is supported by Majid (1990) which states that the statistical standard used as a basis for research and confidence at a level below 0.05 or 95% is significant in this test.

## 4 HOUSING TREND IN JOHOR BAHRU

Table 1 shows housing stock for four high-population and urbanization states in Malaysia. With a total of 1,017,298 units, the state of Johor is the second state to have the highest housing stock after the state of Selangor. The State of Johor also has a high bid to plan and supply housing units in the future. In the apartment service category, existing stocks in Johor may, in the future, exceed the stock in Selangor. In fact, if mixed with the next stock and in the planned supply, the sum of 116,106 units may be equal to the sum of 116,356 units in Kuala Lumpur.

**TABLE 1: HOUSING STOCKS FOR FOUR STATES**

State	Housing Unit				Service Apartment			
	Existing stock	Incoming supply	Planned supply	Total	Existing stock	Incoming supply	Planned supply	Total
Johor	731,633	138,369	147,296	1,017,298	12,623	61,961	41,522	116,106
Kuala Lumpur	424,434	42,773	50,588	517,795	35,862	38,168	42,326	116,356
Pulau Pinang	407,107	94,124	48,12	549,321	1,625	1,719	2,848	6,192
Selangor	1,389,220	164,848	92,785	1,646,853	30,254	38,400	14,728	83,382

Table 2 shows the number of new housing projects launched in Johor Bahru between 2008 and 2013. In all, houses with a price range of RM250,000 to RM500,000 are the most expensive housing prices launched in Johor Bahru. It contributes to approximately 40% of the total number of houses being opened. The price is becoming a benchmark for the affordability of housing for most residents. In view of this trend, it can be seen that the launch of houses at a price range of RM100,000 to RM150,000 has been reduced over the years. This is also the same with the launch of a new house at a price of RM150,000 to RM200,000, although the reduction in the amount does not fall dramatically. For the launch of luxury homes, the price range from RM500,000 to RM1,000,000 and RM1,000,001 and above has increased since 2010.

**TABLE 2: NEW HOUSING LAUNCHED IN JOHOR BAHRU IN 2008 TO 2013**

Price (RM)	2008	2009	2010	2011	2012	2013	Total
100,000 - 150,000	1,52	1,62	320	1,485	84	0	5,032
150,001 - 200,000	2	1					
200,001 - 250,000	1,12	1,13	1,07	1,081	810	528	5,740
250,001 - 500,000	0	0	1				
500,001 - 1,000,000	953	956	937	954	2,293	10	6,103
1,000,001 and above	1,87	3,81	2,60	6,053	3,775	3,78	21,90
Total	7	4	2			5	6
	496	697	693	2,653	5,078	2,18	11,80
	87	10	109	388	2,129	1,08	3,812
	6,05	8,22	5,73	12,61	14,16	7,59	54,39
	5	8	2	4	9	8	6

## 5 FINDINGS

The first objective set out in this study is to identify which factors have an impact on housing affordability stress. Table 3 below shows the results of the analysis of the factors affecting housing affordability stress and is shown in the form of a small score.

**TABLE 3: LIKERT SCALE ANALYSIS**

Scale	Index Range	Factors Influencing The Housing Affordability Stress	Mean
Very Influence	4.60 – 4.93	Housing price too high	4.89
		Household income is not parallel with the current economy	4.63
		High down payment and other fees.	4.62
		Rental house offered is high at certain areas	4.48
Influence	4.26 – 4.59	Household expenditure is high	4.37
		Difficult to get loan from the financial institutions	4.33
		Low cost house is not supplied at the right level of income	4.29
Slightly Influence	3.92 – 4.25	Residential location offered is not strategic	3.99
Less Influence	3.58 – 3.91	Type of household type of occupation	3.69
Very Less Influence	3.24 – 3.57	Household age	3.53

High buyer preferences like gated & guarded (gated & guarded) housing	3.24
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The results of the analysis shown in the table show that the factors that have a strong influence on housing affordability stress is the price of housing, with a total score of 4.89. While the second factor affecting household income is not parallel to the current economy and shows a total score of 4.63. Then the third factor is high down payment and the other charges record a total score of 4.62. The main factor contributing to the stress on affordability of housing is that house prices are too high. This is particularly relevant to the current housing market situation in residential areas, where house prices are rising and it is difficult for households to have their own homes. The rise in house prices can be demonstrated by the launch of new housing in Johor Bahru between 2008 and 2013. Depending on the house prices offered on the market. Developers are now focusing more on housing development at the cost of RM250,000 to RM500,000. However, the launch of houses below RM250,000 has been reduced. Developers are supposed to launch more housing at affordable prices that are appropriate to the income of the population. Household income may indicate the estimated price of housing that they can afford to purchase using the formula set out in Bujang (2006). The price of the house offered on the market is therefore high and exceeds the affordability of the household, in particular the generation Y, which is mostly the middle income earner and the lower income earner. With today's high house prices, if one wants to buy a house, they need to allocate more than 30% of their income to finance the cost of housing, simply assuming that they face the stress of affordability of housing. The second factor affecting housing affordability stress is household income, which is not parallel to the current economy. Income can measure one's ability to own a house, and the greater the income of a person, the greater the power to purchase a property. The results of the analysis showed that 67 respondents still do not have their own houses. They still rent a house, or they live with their families. It was because the income they earn every month cannot afford to buy market-based homes. According to cross-tab results against respondents who still do not have their own homes, respondents who earn less than RM3,000 a month can only afford to buy a house under RM150,000. Meanwhile, respondents with incomes above RM5,000 can afford to buy a house at only RM200,000 to RM250,000. Individual income plays a major role in owning a house. The third factor that affects housing affordability stress is high down payment and other charges. It is well-known that every household that wants to buy a house needs to provide 10 percent of the deposit based on the purchase price. The remaining 90% will be borrowed from any financial institution offering housing loans to all Malaysian residents. Nowadays, with high house prices, households should provide a high down payment amount. High down payment can burden the household and also affect household duration to buy their own homes. Other fees payable for home purchases are also burdensome for households, such as stamp duty fees, professional fees such as lawyers and real estate agents, and others.



**TABLE 4: CROSS TABULATION ANALYSIS**

		Harga Rumah							Jumlah	
		Di bawah RM50,000	RM50,001 - RM100,000	RM100,001 - RM150,000	RM150,001 - RM200,000	RM200,001 - RM250,000	RM250,001 - RM300,000	RM300,000 dan ke atas		Lain-lain
Pendapatan	RM1,001 - RM1,500	1	0	2	0	0	0	0	0	3
	RM1,501 - RM2,000	8	1	2	2	0	0	0	1	14
	RM2,001 - RM3,000	1	1	9	1	4	1	0	0	17
	RM3,001 - RM4,000	2	3	3	0	3	0	2	0	13
	RM4,001 - RM5,000	0	1	1	0	3	1	0	0	6
	RM5,001 - RM6,000	0	0	1	0	3	0	2	0	6
	RM6,001 ke atas	0	0	0	1	3	0	0	1	5
	<b>Jumlah</b>	12	6	18	4	16	2	4	2	64

Based on Table 4, the respondents' income and the price of their affordable housing are shown. The highest number of respondents earning RM3,000 and below may own a house in the range of RM50,000 to RM150,000. In addition, the majority of respondents earning RM3,001 to RM6,000 and above were able to purchase a home not exceeding RM250,000. The second objective is to examine the relationship between income and house prices that has an impact on the stress of affordability of housing. This can be achieved by using the Pearson Chi-Square method to determine the relationship between income and household prices.

**TABLE 5: PEARSON CHI-SQUARE ANALYSIS**

Analysis	Value	Degree of Freedom	Significant Value	Relationship Between Income and House Price Significant
Pearson Chi-Square	74.915 <sup>a</sup>	48	.008	

As a result, the relationship between income and house prices is significant. One's income could indicate their affordability to own their own home. House prices also affect their affordability to buy houses, because if the house prices offered on the market are in line with their affordability, there is no question of why many people still cannot afford to own a house. For this reason, the income factor and the house price factor play an important role in the problem of housing affordability stress. Low incomes have also led to limited purchasing power, as house prices have raised. It can also be supported by the results of the analysis, where 67 respondents still do not have their own home and still rent a home or live with their family. Only 33 respondents had their own homes, but most of them had houses located far from their workplaces, probably due to high housing prices in urban areas. They therefore prefer to bear the cost of transport rather than purchase a house beyond their affordability and pay a high monthly installment to the financial institutions.

## 6 DISCUSSION

On the basis of Table 1, Johor Bahru has the second highest number of residential units of 1,017,298 after the Selangor state of 1,646,853. The total number of service apartments in Johor Bahru, 116,106, was the second highest after Kuala Lumpur, 116,356. Based on this table, we can see that the residential construction sector in Johor Bahru is developing much like Kuala Lumpur, Selangor and Penang, with a high

population and urban population. Table 2 shows the house prices started in Johor Bahru between 2008 and 2013. House prices from RM250,000 to RM500,000 are the most widely used in Johor Bahru. Even though the number of house prices below RM250,000 is increasing, the size is dropping. The number of houses at RM500,000 and above is growing every year, making more people unable to afford to own their own homes. The launch of these luxury homes is on the rise, with the aim of buying such luxury homes from foreign investors. Luxury homes in Johor Bahru have been affected by middle- and low-income housing. In fact, if they want to buy a house, they only need to allocate more than 30% of their income to the cost of housing. This situation is called a stress on housing affordability. The Cross Tabulation analysis shows that although there are respondents earning more than RM4,001 and above, most of them can only purchase RM200,000 for RM250,000 homes. Respondents earning RM3,000 and below have only homes priced at RM150,000 and below. Obviously, one's earnings have an impact on household purchasing power, whether they can afford a cheap, modest or expensive household. Not all high-income respondents are, however, able to afford expensive homes. This is likely to be due to the fact that they have other household expenses that need to be borne for each month rather than a high cost of an expensive house. As a result, it can be concluded from the Pearson Chi-Square analysis that income and house prices are factors that influence the stress of affordability of housing. At present, the housing affordability issue has also risen in parallel with the rise in housing market prices in major urban cities such as Johor Bahru, Kuala Lumpur, Penang and others. The income of a person who is not rising in line with the current economy also contributes to this problem. Ideally, the relevant parties will continue to provide the best solution to help these people and increase efforts to build more affordable housing. The findings of this study are consistent with previous Malaysian studies. Factors that influence the affordability stress of housing identified in this study are consistent with Bujang et al. (2017). Too high house prices, household income is inconsistent with current economic conditions and high deposits and other charges are factors that influence the stress on the affordability of Generation Y housing in Johor Bahru found in this study. The biggest obstacle for first-time home buyers, according to Bujang et al. (2015), is allocating 10 percent of selling price deposits. Meanwhile, there is a strong relationship for the second objective between income and house prices, influencing the affordability stress of Generation Y housing in Johor Bahru, for the second objective. This is similar to that of Amira's (2015), where in terms of housing affordability stress; the relationship between income and house prices was significant for Bumiputera in Johor Bahru.

## 7 CONCLUSION

The problem of housing affordability stress has been proved to occur in the study area of Johor Bahru through the results of the analysis. Factors influencing housing affordability stress were identified through quantitative methods by distributing questionnaires. The results of the analysis show that there are three factors that influence housing affordability stress. The three factors that have an influence on housing affordability stress are housing prices that are too high, household income is not parallel to the current economy and high down payment and other charges. Pearson Chi-Square's analysis also shows

that there is a strong relationship between housing prices and household income to housing affordability stress. In short, all of the two objectives set out in this research have been achieved.

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