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## FACTORS INFLUENCING THE HOUSING AFFORDABILITY STRESS AMONG BUMIPUTERA

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### Abstract

Affordability of housing is linked to the health and well-being of individuals and families. Housing affordability stress is a situation where a household who wants to own a house spend more than 30 percent of his monthly income for housing cost which might affect the living expenditure. Hence, this study is carried out is to define what is housing affordable stress in Malaysia and to explore the factors influencing the housing affordability stress among the bumiputera from the lower and middle income group in Johor Bahru. Data and information are collected through literature review and questionnaires. The data and information then have been analyzed by using descriptive analysis, Cross Tabulation and Likert Scale by using SPSS software. The findings shows that most of the bumiputera cannot afford to buy a house even though they earned a monthly income for at least RM5,000. However for those who had already owned a house only afford to buy a house at an average price between RM200,001 to RM250,000 only. The factors influencing the housing affordability stress are income pattern, household type and size, region or district, age, the ratio of housing costs and income, National Housing policy and life style.

**Keywords:** *Housing affordability stress, Housing prices, Household income, Bumiputera*

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### 1.0 INTRODUCTION

Public concern over housing affordability arise from housing is the single largest expenditure item in household budget and the increases in housing price or rental (John and Steven, 2004). This situation creates problems for the medium and low income group. Jamie (2003), low and medium income families found increasing difficult to access adequate affordable housing. Laurie *et al.* (2003), when the supply of affordable housing in the market is sufficient, lower income families are often forced to limit expenditure for food, medical care, and other necessities in order to pay rent or installments. This insufficiency of affordable housing within a community can contribute to family residential instability and thus affected health and well-being. The lack of affordable housing in the market affected both home ownership and rental. As the result household has to spend more for housing and thus create household housing stress.

According to CDP Review, Subject Matter Study, Asset Sharing (2013), the differentiation between housing price and Bumiputera's income in Iskandar Malaysia shows about 50.8% Bumiputera's income were less than RM3,500 just only afford to buy a house at an offered price less than RM200,000. This situation seemed likely have been occurred for the past few years based on the previous research by Bujang (2006), Bumiputera who are living in Johor Bahru have been affected with the increasing of housing price and due to this condition they are not afforded to buy and own the house. Thus, is the minimum price offered by the developer is a price that every household are afford to buy? The statement by Mohd Razlan Rafii, WP UMNO Youth leader, described the market nowadays where the reality of our market condition for high-end housing supply and development is 93.6%, while Malaysian who are with high income is just around 20% only. The increases of housing prices year by year had affected household

ownership on the housing consumption especially to the lower and middle income group. This statement has been proven by the previous research; Azizah *et al.* (2014), the increasing in housing price for every year affect the lower and middle household purchasing power. Thus, those who want to own a house need to spend more on the housing cost. Based on Bujang (2006) and United State Housing and Urban Department (HUD, 2002), if household spend their money more than his income capabilities just to buy a house, this situation can be called as housing affordable stress. So, with regards to the problems, this research is focusing on the finding of what are the factors that influences the housing affordability stress?

## 2.0 HOUSING AFFORDABILITY

Housing affordability can be defined as a person ability that has the potential to make saving based on their income not only to the housing cost, but also to the another consumption (Anirban *et al.*, 2006). Based on Giuseppe (2011), housing affordability can be described when a person shows his capability to buy a house. Besides, Hancock (1993) defined housing affordability is about the housing using standard and applying the concept of opportunity cost which being as the core of housing affordability. The opportunity cost concept is applied to those who want to buy a house, in order to own a house he need to release another less important things instead of own it too. Not only that, the theory of housing affordability can be view from three different perspectives (Quan and Hill, 2008): purchasing affordability; repayment affordability; and income affordability.

**Table 1:** Affordable Housing Price based on the income, interest rate ( $i=4.39%$ ), loan period ( $n=30$ )

| Monthly Income | Yearly Income | 30% of yearly consumption | Housing Price<br>( $n=30, i=4.39%$ ) |
|----------------|---------------|---------------------------|--------------------------------------|
| RM 10,000      | RM120,000     | RM36,000                  | RM594,065                            |
| RM9,500        | RM114,000     | RM34,200                  | RM564,362                            |
| RM9,000        | RM108,000     | RM32,400                  | RM534,659                            |
| RM8,500        | RM102,000     | RM30,600                  | RM504,955                            |
| RM8,000        | RM96,000      | RM28,800                  | RM475,252                            |
| RM7,500        | RM90,000      | RM27,000                  | RM445,548                            |
| RM7,000        | RM84,000      | RM25,200                  | RM415,846                            |
| RM6,500        | RM78,000      | RM23,400                  | RM386,142                            |
| RM6,000        | RM72,000      | RM21,600                  | RM356,439                            |
| RM5,500        | RM66,000      | RM19,800                  | RM326,736                            |
| RM5,000        | RM60,000      | RM18,000                  | RM297,033                            |
| RM4,500        | RM54,000      | RM16,200                  | RM267,329                            |
| RM4,000        | RM48,000      | RM14,400                  | RM237,626                            |
| RM3,500        | RM42,000      | RM12,600                  | RM207,923                            |
| RM3,000        | RM36,000      | RM10,800                  | RM178,220                            |
| RM2,500        | RM30,000      | RM9,000                   | RM148,516                            |
| RM2,000        | RM24,000      | RM7,200                   | RM118,813                            |
| RM1,500        | RM18,000      | RM5,400                   | RM89,110                             |
| RM1,000        | RM12,000      | RM3,600                   | RM59,407                             |

Sources: Calculation based on the derived formulae

According to Bujang (2010), purchasing affordability focused on the household whether

they are afforded to secure a housing loan. While the repayment affordability will be

focusing on the household loan repayment aspect and the income affordability will be focusing on the housing price ratio towards the household income. There is a formula derived by Bujang (2006) on the determining of affordable housing price by using 30 percent from gross income:-

$$Hg = Y(X\%) \times \frac{1 - (1 + i)^{-n}}{i}$$

Where;

- Hg = Affordable Housing Prices (Maximum)
- Y = Household income per year
- X% = Consumption percentage for per year
- i = Interest for per year
- n = Loan period (year)

The calculation of this formula is using the Year Purchase's Table or the present value of RM1.00 per annum. Based on the formula, Table 1 shows the affordable housing prices according to the household income gaining with an assumptions interest,  $i=4.39\%$  and loan period of 30 years.

Table 1 clearly shows that a person with an income of RM5,500 per month for example just only afford to purchase a house that cost about RM326,736. Thus, the level of person affordability to own or buy a house is very important (Bujang, 2006). This showed that, housing affordability focused more on the relationship between the housing cost consumption and the household income. Thus, housing "affordability" refers to the terms on which houses can be purchased and loans to purchase these assets can be amortized.

### 3.0 AFFORDABLE HOUSE

The term affordable housing is not consistently defined and is, therefore often misunderstood. Housing is defined as affordable, housing costs that consume not more than 30 percent of a household's gross income (Nancy, 2002; HUD 2002). Furthermore, according to the Policy Research Working Group (Milligan *et al.*, 2007), "affordable house is a house that is reasonable

for the needs of a household with low to moderate income and reasonable prices so that these groups can meet their basic life needs". Generally, the concept of affordable housing is to meet the needs of medium and low income buyer. Housing financing represent the largest expenses and also the largest investment for the most households (Burchell *et al.*, 1995). As such Stone (2008) stated that affordable housing can have meaning or utility only if three essential questions can be answered: affordable for whom; on what standard of affordability and for how long? Thus it can conclude that affordable housing has close relationship with housing needs. Housing needs is influenced by socio economic driven such as demography and social, household income, residential cost, household size and economic growth (Canadian Housing Observer, 2014).

Stone, Burke, and Ralston (2011) argued that affordable house still does not have clear definitions, precise and consistent. However the term affordable house has been used widely and it is not comprised of social housing and low income housing only. Affordable house also concerned on the aspects of housing finance assistance for middle-income households that find difficult to buy a home in the private speculative market. Baqutayan (2014) stated, affordable house can be expressed as a house that can be provided based on reasonable cost compared to the income. A person should not have to allocate more than 30 percent from the gross household income for those who are with low to middle income group. National Housing Policy (2010) concluded that, affordable house can be described as homes built for the low income, low-medium and medium households. Thus, affordable house is often associated with housing needs for the community at large especially the medium and lower income groups (Pre-Congress of Housing, 2014).

Apart from that, the affordable house in Malaysia has been visualised in the term of Affordable Housing Scheme. According to Azizah (2013), public housing scheme is affordable housing provided by the government in an effort to assist the disabled, single mothers, the elderly and low-income earners to own their own house. The concept of affordable house schemes is developed by Syarikat Perumahan

Negara Berhad (SPNB) in every state. As indirectly, it is actually shows that the government is committed to ensure that all people can meet their basic needs. The house that being built by SPNB is a house equipped with three bedrooms and two bathrooms. The definition of Low Cost House, Medium-Low Cost House and Medium Cost House based on the interpretation of SPNB are as shown in Table 2.

However, the price of affordable house developed by SPNB is subjected to the approval from Secretaries of State respectively. SPNB

adopted the qualifications required by the State Government and outlined three essential conditions that must be met by the purchasers of Low Cost Housing:-

- a) Citizens of Malaysia.
- b) Age of 21 to 50 years.
- c) Does not have a home or do not have any land that can be built a house in any place in Malaysia.
- d) Household income does not exceed RM2,000.

**Table 2:** Price for each type of houses

| No | Types of House  | Floor Area | Price for Peninsular | Price for Sabah & Sarawak |
|----|-----------------|------------|----------------------|---------------------------|
| 1  | Low Cost        | 700 sqf    | From RM 35,000       | From RM 50,000            |
| 2  | Medium-Low Cost | 750 sqf    | From RM 50,000       | From RM 70,000            |
| 3  | Medium Cost     | 800 sqf    | From RM 80,000       | From RM 100,000           |

Sources: Public Information Centres (2012)

However, Johor state government has introduce new conditions for those who buy an affordable house with subsidized Johor. This is important in ensuring that no party can take the opportunity in making for quick profits. The state government will monitor at least five years for the house purchased by those who have received this subsidy. The buyers who bought a

house with this subsidy cannot sell the house without a valid reason. If the opposite occurs, it is feared that led to increasing in housing price even though the house is classified as affordable house due to owners sells the house at a high price for making a quick buck. Table 3 shows the housing price for certain income limits.

**Table 3:** Housing prices for certain income limits

| Category                | Housing Price            | Income Limit          |
|-------------------------|--------------------------|-----------------------|
| Low Cost House 1        | RM 25,000                | Not more than RM2,000 |
| Low Cost House 2        | RM 28,000                | Not more than RM2,000 |
| Low Cost House 3        | RM 30,000                | Not more than RM3,000 |
| Low Cost House 4        | RM 35,000                | Not more than RM3,000 |
| Low-Medium Cost House   | RM 50,000                | Not more than RM3,500 |
| Johor Community House A | RM 42,000                | Not more than RM3,000 |
| Johor Community House B | RM 80,000                | Not more than RM4,500 |
| Johor Affordable House  | RM 120,000 to RM 220,000 | Not more than RM6,000 |

Sources: Johor State Affordable Houses (2015)

**4.0 HOUSEHOLD GROSS INCOME**

In order to know a person housing affordability, income is the best factors that influenced factor. Income will determine a person on what types of house and price range he affords to buy. According to the ILO (2003), household income consists of all receipts whether monetary or in kind (goods and services) received by the household or by individual members of the household in a year or more frequently, but not including freight and others. Household income receipts are available for current consumption and do not reduce the net worth of the household through cash reduction, disposal of assets and other financial or non-financial, or an increase in liabilities. According to Hancock (1993), income can be defined as how much income earned by a household, and how much of the revenue is allocated for residential purposes is a starting

point for measuring the level of housing affordability one has. Nepal *et al.* (2010), for many households, income is the best method to analyses the level of their ability. In a study conducted by Zulkifli and Bujang (2008), the level of housing affordability will increase as income increases. The higher the income, the more the amount of money that can be allocated to housing costs. Table 4 shows the average income of household from 2009 to 2012.

Table 4 shows the average household income. This income however giving some sort of question; what will be the affordable housing price that they are afforded to buy? This is due to the increasing of housing price year by year. If a person who still want to own a house, but then they are spending more than 30 per cent from their income just to the housing cost, meaning that they are suffering a housing affordability stress.

**Table 4:** Average Household Income for 2009 and 2012

| State            | 2009                          |              |              | 2012                          |              |              |
|------------------|-------------------------------|--------------|--------------|-------------------------------|--------------|--------------|
|                  | Average Household Income (RM) |              |              | Average Household Income (RM) |              |              |
|                  | Urban                         | Rural        | Total        | Urban                         | Rural        | Total        |
| Johor            | <b>4,144</b>                  | <b>2,982</b> | <b>3,835</b> | <b>5,001</b>                  | <b>3,628</b> | <b>4,658</b> |
| Pulau Pinang     | <b>4,606</b>                  | <b>3,440</b> | <b>4,407</b> | <b>5,270</b>                  | <b>3,970</b> | <b>5,055</b> |
| Selangor         | <b>6,185</b>                  | <b>3,698</b> | <b>5,962</b> | <b>7,311</b>                  | <b>3,798</b> | <b>7,023</b> |
| W.P Kuala Lumpur | <b>5,488</b>                  | -            | <b>5,488</b> | <b>8,586</b>                  | -            | <b>8,586</b> |

Sources: KKLW Statistical Bulletin, 2012

**5.0 HOUSING AFFORDABILITY STRESS**

Based on Bujang (2006) and United States Department of Housing and Urban Development (2002), family who spend their income more than 30 percent just to the cost of housing, then the condition can be called as a cost burden and they are said to be facing difficulties in provide basic needs such as food, clothing, transportation and medical care. Rawley and Ong (2012) concluded that the housing affordability stress is the financial hardship faced by owners of housing. Thus, if a household spend more than 30 percent of the income for housing this household can be said in

the situation of housing stress. Yates (2007), a widely used indicator of housing stress is 30:40 rules, where a person is said to be in a housing stress when housing costs exceed 30 percent of household income and is below 40 percent of the income distribution. According to Marks and Sedgwick (2008), the indicators being used in order to measure the housing affordability stress is by using the gross income but Stone, Burke and Ralston (2011), stated inversely where disposable income is the best indicator of the measuring the housing affordability stress. Yates (2006), stated those in housing affordability stress and financial stress are from low-income groups, youths, households with only one adult, and tenants. Australian Housing and Urban

Research Institution (AHURI) (2012), states that the housing affordability stress and housing affordability in the environment of enough income and applying the concepts brought by Mac Lennan and Williams (1990), households should not bear the unreasonable housing cost on their income. AHURI (2012) also adopted the concept brought by Hancock (1993), "what must be sacrificed to obtain a house and what have been set aside is reasonable or excessive in other words." Thus, it can be conclude that, as an increase of housing prices, a person who wants to own a home have to sacrifice something important but felt worthwhile to be sacrificed merely to have a home. Thus Yates (2007) stated, if a household is a low-income group, allocated at least 30 percent or more of their income to meet the cost of housing, the situation is defined as a housing affordability stress.

## 6.0 FACTORS INFLUENCING TO THE HOUSING AFFORDABILITY STRESS

There is numerous numbers of factors that have been giving a huge affected to the housing affordable stress such as:

### a) Income pattern

According to Judith (2007), if low-income households pay at least 30 percent of their income to meet the cost of housing it can be categorized as having housing affordability stress. According to Nepal, Tanton & Harding (2010) Measuring Housing Stress, they are

making a statement on about the definition of housing affordability pressures as follows: -

### Rule 30

This rule is the most basic rule in making housing affordability stress ratio. According to this rule, households are said to be in a housing affordability stress if they use more than 30 percent of gross income on housing costs. According to the previous research, proving that the expenditure for most households is the same as high-income households, so the income is considered as guidelines that cannot be trusted to the standard of households living.

However, this study is touch more to the income of Bumiputera's middle and lower-class income. According to the Department of Statistics, Malaysia (2012), the population of Malaysians middle and lower income is 60 percent compared to 40 percent of the Malaysian population with high incomes. Table 5 shows the average household income according to the races.

Wan *et al.* (2010) states that the middle-income group in Kuala Lumpur only afford to buy houses costing RM180,000 to RM200,000 only and are classified as affordable housing. However, according to Shadiya (2014), house prices offered are much higher than the capacity of middle-income earners. Thus, it can be concluded that, when house price offered is higher in the market, the income affordability will be weak. Hence, this may contribute to an increase in housing affordability stress because the income earned by most of the bumiputera cannot afford to purchase houses which are than RM200,000.

**Table 5:** Average household income according to the races

| Years         | Total |        | BUMIPUTERA |        | Chinese |        | Indian |        |
|---------------|-------|--------|------------|--------|---------|--------|--------|--------|
|               | 2009  | 2012   | 2009       | 2012   | 2009    | 2012   | 2009   | 2012   |
| Highest (20%) | 9,987 | 12,159 | 8,976      | 10,666 | 12,152  | 15,254 | 9,774  | 13,127 |
| Middle (40%)  | 3,631 | 4,573  | 3,272      | 4,123  | 4,560   | 5,836  | 3,569  | 4,589  |
| Lowest (40%)  | 1,440 | 1,847  | 1,300      | 1,686  | 1,897   | 2,455  | 1,547  | 1,937  |

Sources: Malaysia Statistical Department (2012)

b) Household Type and Size

Based on the findings of a study by Yates (2007), the type of household also be one of factors that caused housing affordability stress. According to the list of households spouses, the spouses and children, individuals, single parents, groups, and others, the percentage of households that are said to be in housing stress is a single parent. According to a study conducted by Stone, Burke and Ralston (2011) estimated that the type of households with income only \$75,000 a year afford the housing costs of \$800 per week (approximately 50 percent of gross income), differ with households couples with children, can only accommodate about half of that amount. In generating income that enables a person not only cover the cost of housing, but also the costs of other basic, then they should have the kind of good work types. According to Clark *et al.* (1997), households with stable jobs are easier to buy a home.

According Linneman and Megbolugbe (1992), the problem of housing affordability particularly applies to households with low and middle income is due to the type of work. Furthermore, it is also influenced by the educational background that they have. It then becomes a problem due to the ability of this group, not because caused by the increasing of housing price but it is caused by their income does not increase or the increment of the income is low. Azizah (2013) through Norazmawati (2007), stated that there are occupations that consist of widely professional, non-professional, highly-skilled, and low-skilled workers can influenced household income. Occupations that are categorized by sector jobs are jobs in the government sector, the private sector and self-employment. Thus, to ensure that the work received a good job, then a person should have a good academic background. According Bujang *et al.* (2010), the education seems the most important factor in the ability of a person in home ownership. Hence, type of household occupations is one of the factors of housing affordability stress resulting from a combination of factors such as employment and education background owned by household.

c) Region/District

The most important factor of owning a house is the price, location and population in the socio-economic environment (Rossi, 1995). However, according to the statement by Bujang *et al.* (2010), the person capabilities is the main factor of high house prices offered in the market and caused to lack of supply on affordable houses, especially in the city area. This was also supported by Bujang, and Hasmah (2008), when the developer is described as less interested in providing affordable houses which are the low and medium-cost houses due to low profit margin. As a result, most of the potential buyers found that, the prices offered in the market is much more expensive than their capabilities (Aminah Md. Yusof and Azimah Razali, 2004). According to Ab. Rahim Abd Rashid (2000), the housing problem arises when the issue of the distribution of the Bumiputera's lot is misled. This occurs when the price of the house is open to speculative market, and developers act by hiding Bumiputera's lot, and when the time speculated the housing prices roses, then, the developer sold a Bumiputera's lot to the qualified prospective buyers with high housing prices. Developers assumed that most of the Bumiputera's buyers were not able to secure on high housing prices. Thus, as a result of the increase in housing prices in the city area, and the attitude of developers who do not want to build low-cost housing, hence when the Bumiputera who want to own a house have to allocate more than 30 percent of their income to housing cost and this percentage have increase the level of housing affordability stress.

d) Age

Bujang *et al.* (2010) noted that the age distribution, especially within the family begin to affect a greater need for housing. According to US Census Bureau (1993), stated that the age factor is among one of the factors that affect person housing affordability. Based on the case studies conducted by Yates (2007), young people are more likely to experience housing affordability stress than the older group. According to him, young people are more likely to experience the financial stress. Thus, as a

result of financial stress experienced by young people has lead indirectly to their misfortune in having a house. And because of that, they have to allocate bigger sums of money on the housing cost, and if the amount of the allowance is 30 percent more than their income, then this is called a situation of housing affordable stress

e) The ratio of housing costs and income

According to Zainal Abidin (2010), if the housing costs are high, and few households are entitled or able to own a house, this will create a so-called housing affordability stress among households. Due to the high cost of housing, households who are not afford to buy house, choose a house away from the “hot” area and away from where they work. As a result of the selection of a house away from work place, it will then, indirectly, a household would be confronted with rising of transportation costs, time, and energy which will reduce the productivity of a person. The Australian Government's National Housing Strategy (AHNs) defined the ability as reasonable housing costs in relation to income that housing costs are imposed on households with sufficient income to meet basic needs such as food, clothing, transportation, medical care and education (Berry and Hall, 2001). Thus, if households allocate more than 30 percent of their income towards housing costs, they are defined as households experiencing housing affordability stress.

f) National Housing Policy

According to AHURI Research and Policy Bulletin (2014), to ensure that housing policy can address the problem of housing affordability stress, the policy makers should be more sensitive and focused on low-income households and those who are facing chronic housing affordability stress Based on Tier 1 of the National Housing Policy, policy makers only focused on meeting the housing needs of low and middle income earners irrespective of the pattern of income received by them.

g) Lifestyle

Ling from School of Social Sciences, Universiti Sains Malaysia, when lifestyle trends are changing for a better quality of life which home buyers want a house that not only have purely functional as a house but they are even more focus on value-added. The added value here is the factor influenced the increasing housing price such as security, privacy, a covered parking area, swimming pool, and others. According to Mariana *et al.* (2011), based on the statement of Sirat (The Star, August 2004) where there are three types of gated development oriented recreation of "lifestyle community", "elite community" and "community safety zones". Theoretically, this gated development reflects the high security and privacy to the owners. Thus, this is one of the marketing strategies for the developers to improve their profit margins. Then, due to the changes in residential preferences of potential buyers who are focused on a better quality of life has been indirectly giving huge opportunities to the developers to increase the supply of these houses concept.

## **7.0 METHODOLOGY**

In achieving the objectives of this study, two types of data will be used, namely primary data and the secondary data. A field survey is carried out to collect the primary data. The instrument used to collect the primary data is set of questionnaires. The questions in the questionnaire are close ended. The data are informed of quantitative. Apart from the survey, secondary data are also required in this paper, especially for the literature reviews. The secondary data are acquired from references such as journals and articles. The target sample size will be based on 90 per cent level of confidence by using the Taro Yamane Formula (1973). The data will be analysed by using Descriptive Statistic, Cross Tabulation, Pearson Chi-Square and the Content Analysis.

**8.0 JOHOR BAHRU RESIDENTIAL PROPERTY MARKET**

Offer prices for residential property in the state of Johor today is on a relatively high compared to level of people's ability to have its own house at state of Johor. According to Bujang (2006), residential property prices has affected the ability of Bumiputera's purchasing power to buy and own their own house, especially in Johor Bahru. Thus, Table 6 shows the price trend for

residential property in the area of research, Johor Bahru, Johor from 2010 to 2014.

**9.0 FINDINGS AND CONCLUSION**

This study has the aims to identify the factors that influenced to the housing affordability stress. Table 7 shows the analysis on the factors influencing household housing affordability score by mean score.

**Table 6:** Housing Prices from 2010 until 2014

| Type of House          | First Quarter 2010 |                | First Quarter 2011 |                | First Quarter 2012 |                | First Quarter 2013 |                | First Quarter 2014 |                |
|------------------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|
|                        | Min Price (RM)     | Max Price (RM) |
| 1 ½ Storey             | 80,000             | 308,000        | 80,000             | 368,000        | 85,000             | 360,000        | 100,000            | 406,000        | 98,000             | 460,000        |
| 2 ½ Storey             | 80,000             | 558,800        | 100,000            | 680,000        | 100,000            | 800,000        | 130,000            | 650,000        | 142,000            | 680,000        |
| 1 ½ Semi-D             | 145,000            | 220,000        | 130,000            | 600,000        | 140,000            | 420,000        | 150,000            | 500,000        | 200,000            | 460,000        |
| 3 Semi-D               | 348,800            | 878,888        | 247,000            | 1,150,000      | 190,000            | 1,000,000      | 300,000            | 1,200,000      | 440,000            | 780,000        |
| Semi-D                 | 138,000            | 390,000        | 95,000             | 1,450,000      | 97,000             | 1,800,000      | 160,000            | 3,867,000      | 120,000            | 2,000,000      |
| Cluster                | 152,900            | 608,000        | 175,000            | 600,000        | 580,000            | 730,000        |                    |                | 630,000            | 850,000        |
| Low Cost House         | 24,950             | 68,000         | 40,000             | 140,000        | 45,000             | 135,000        | 50,000             | 100,000        | 50,000             | 138,000        |
| Low Cost Flat          | 22,000             | 50,000         | 25,000             | 60,000         | 25,000             | 50,000         | 30,000             | 55,000         | 27,000             | 50,000         |
| Flat                   | 50,000             | 50,000         | 50,000             | 84,300         | 50,000             | 109,000        | 70,000             | 70,000         | 64,000             | 145,000        |
| Condominium/ Apartment | 90,800             | 464,200        | 90,000             | 639,800        | 90,000             | 570,000        | 110,000            | 144,000        | 100,000            | 730,000        |

**Table 7:** Total and Average Scores for the Factors Influencing Housing Affordability Stress

| Scale               | Index Range | Factors that influencing the housing affordability stress              | Min  |
|---------------------|-------------|--|------|
| Very Influence      | 4.58 – 4.82 | Housing price is too high  | 4.80 |
|                     |             | Rental house offered is high at 'hot' area                             | 4.66 |
| Influence           | 4.33 – 4.57 | Lower household income   | 4.54 |
|                     |             | Amount of loan payment   | 4.50 |
|                     |             | Deposit payment and others high fees                                   | 4.40 |
|                     |             | Difficult to get the loan  | 4.40 |
| Slightly influence  | 4.08 – 4.32 | Type of Household occupation   | 4.26 |
|                     |             | Lower House Cost is not supplied based on the relevant level of income | 4.24 |
|                     |             | Household patterns expenditure is high                                 | 4.10 |
| Less influence      | 3.83 – 4.07 | Loan payment period  | 4.06 |
| Very less influence | 3.58 – 3.82 | Household age  | 3.58 |

From the analysis carried out in the above table, the most influenced factor for housing affordability stress is housing prices is too high with the total score of 4.80. While, 'rental house offered is high at 'hot' area' is recorded as the second highest factors that will be influenced to this problems with an average score of 4.66. The next factor is 'lower household income' with a total a total score of 4.54. This is followed by a 'amount of loan payment' and 'deposit payment and others high fees' with an average total score of 4.50 and 4.40, respectively. While other factors such as difficult to get the loans with the total score of 4.40.

High housing prices being offered at the market nowadays bring so much difficulties to most of the Bumiputera's who are in the lower and middle class income. The increasing in price of residential properties is proven when the comparison between the residential prices properties is being carried out from year of 2010 until the year of 2014. As a result if they want to own a house it leads them to spending more than 30 per cent of their income just to this housing cost. This will cost them more for housing and may suffer a condition that so called as housing affordability stress.

High rental paid being the second highest factor that influenced housing affordability stress. Household who are in the lower and middle group income that are not afford to buy a house make a decision to rent the properties instead of owning the properties. However, the inversely situation happened when the rental offered is also high in the market especially located at the 'hot' area. High rent in the market is due to facilities is being equipped in these areas, and because of this condition the owners of the houses increase the rental house. The increasing of house rental somehow gave a negative effect to most of the tenant.

Lower household income is also one of the importance factors that influenced to the housing affordability stress. The above analysis showed that, 68 per cent of the respondents are not able to buy a house because most of their income cannot cope with the housing price offered in the market. Due to this condition, they tend to rent a house. Thus income can be said as one of the major element in owning a house.

As a conclusion, the factors that influencing to the housing affordable stress are high in housing price, high in rental price, lower of household income and others.

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