# The Psychological Aspect of Dwellers Living in Affordable Housing: The Criteria of Housing in Malaysia

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# The Psychological Aspect of Dwellers Living in Affordable Housing: The Criteria of Housing in Malaysia

## Shadiya Mohamed Ba Qutayan

Perdana Centre of Science, Technology and Innovation Policy Studies,Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia
Email: shadiya.kl@utm.my

**Abstract**

Housing is a major concern for all people in every corner of the world as the wellbeing of any society is reflected in their housing characteristics and living standard. The Malaysian housing policy has developed since its independence from the British in 1957 with some colonial influence, however, the emphasis has changed in the 60s and 70s from merely providing access to housing to increasing affordability and better quality housing.  These policies pledged to improve housing quality for all citizens, despite the ambitious nature of these commitments, public policies have paid little attention to how to bridge the gap between livable and affordable housing. This research aims to investigate the characteristics of the livable affordable home that meet the needs of Malaysian society and to facilitate the way to understand the livable affordable home standard that suits the needs of all citizens. Data were gathered from three hundred and ninety (390) respondents, using Measurement of "Affordable Livable Housing 2014". The accumulated data were then analyzed; descriptive statistics were used to interpret the outcomes. The findings signified that although the government has shown great improvements in the housing environment, educational choice, economic development, community and neighborhood, and public amenities, the main affordable livable housing gaps are housing price, safety and security, and transportation cost that have an impact on the psychological wellbeing of middle-income in Malaysia. Thus, the outcomes of this paper can help researchers, planners, architects, policymakers, and others in formulating a guideline for housing quality so that they will include these features in any new housing projects.

**Keywords:** Housing Criteria, Psychological Aspect, Livable Home, Affordable Housing, Quality of House in Malaysia

## Introduction

Since the past few years, housing in Malaysia has improved for many people; homeowners have seen the value of their properties increase and the tenants have seen massive improvements in the quality of their homes. But several challenges exist, and the major challenge that almost all dwellers are facing is the housing price that has grown faster than

the wages. It is becoming increasingly difficult for the young citizen in Malaysia to get a step on the housing ladder. Although, it is stated in the Various Five-Year Malaysia Plan and the Second Outline Perspective Plan (1991-20000), that the government put it's focus on providing suitable and affordable housing for the citizen, and to ensure that all Malaysians have greater access to adequate and affordable shelter and related facilities, the citizens are still complaining (Mahamud & Hasbullah, 2011). The other challenge is the establishment of adequate, affordable and livable home standards that suit the income of middle-income group. According to Baqutayan et al (2015), developers in Malaysia need to provide more good quality, livable and better-designed housing for the future. So, how to get a livable and good quality house with affordable price?

Housing affordability has become the main issue in housing sector as the houses price and living cost continue to increase especially in urban area. Much effort has been made by the government to address issue related to housing affordability, however, the livability of the affordable homes have not been attended. All this while the focus was only on the affordable housing with little concern on the livability aspect. Therefore, this research focuses on bridging the gap between affordable and livable housing. The factors taken into account are not only physical aspect of livable housing but also the psychological aspect of dwellers living in affordable house, which do not meet the criteria of livable homes.

Housing affordability is not a character feature; it describes the relationship between people and their living space. According to Maclennan and Williams (1990, P-9) "affordability is the way of securing some given standard of housing at a price or a rent which does not impose an unreasonable burden on household incomes." Goh (1992), described it as a housing unit which is within the reach or capability of people in the various income groups. Affordability is not a fix characteristic of housing, but it is a relationship between income and relative prices of the house (Stone, 1994). Overall, affordability focuses on the ability to pay without facing any pressure.

In Malaysia the government was keen to provide adequate affordable housing for the citizen, particularly, the low and middle-income groups. The government also pledged to improve the quality of house for all citizens (KPKT, 2013). Quality of housing in this context refers to the livability one. Livability has been defined as "a statement of desires related to the contentment with life in a particular location..." (Chazal, 2010), and also described as "a place that is safe, attractive, socially cohesive and inclusive, and environmentally able; with affordable and diverse housing linked to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities; via convenient public transport, walking and cycling infrastructure" (Lowe et al., 2013). The question out of this discussion is how to measure the livable house? And what principle needs to be taken into account for the measurement of affordable livable housing?

It is indeed a tough task to define one measurement and/or principle that suite all housing projects, different cultures, and every income group. The best is to benchmark the main and major principle, and in this research the focus is on those houses that are in good conditions, safe and secure, located at clean environments, access to different transportation, schools, public amenities, consist of good communities and great neighborhoods, and contribute to the psychological well-being of middle income groups. The opposite of these characteristics are considered "poor housing conditions" as indicated by Harker (2006), that poor housing condition is the one that is in need of substantial repairs; structurally unsafe; damp, cold, or infested; or/and lacking in modern facilities.

Affordable livable home standards and characteristics are grouped in the following diagram:
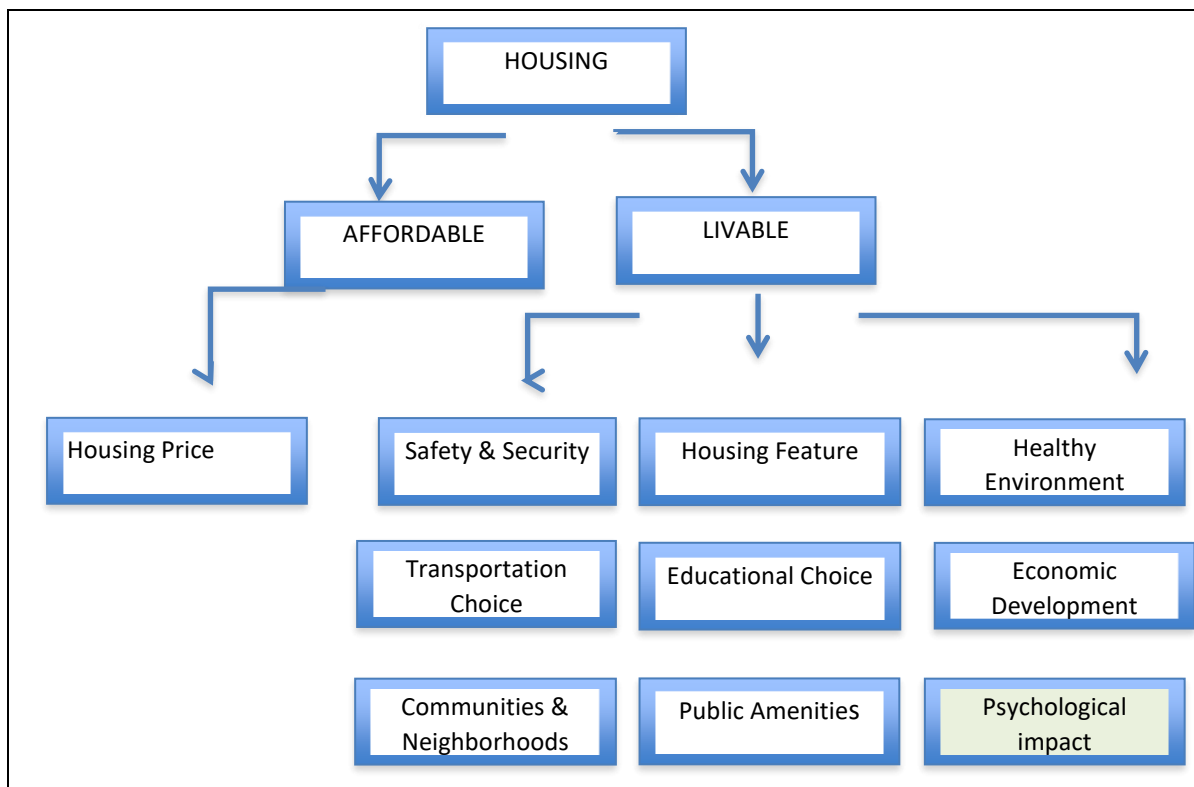
Diagram 1: Affordable livable housing principle

**Research Methodology**

The study of 390 respondents was mainly quantitative in nature. Data collection was carried through a survey of the middle-income residents located in various parts of Klang Valley and Johor Bahru, Malaysia. The findings presented in this paper were analyzed using descriptive statistical analysis aided by the computer software SPSS and the results displayed in frequency and percentile forms.

There was no statistical sampling frame to select the participants as knocking the doors and seeking assistance from maintenance office and chief of the community at middle-income housing areas to distribute the survey of this research were used for practical reasons. This was the most suitable method to select a sample whose nature was confined to particular restricted research requirements, i.e. respondents from middle-income groups who were trapped in the middle; not able to afford high cost housing and not allowed to stay in low-cost housing.

The middle-income group was selected because of two reasons. Firstly, statistics revealed that approximately 66.7% per cent of Kuala Lumpur populations are middle-income group. And they only afford to buy a house between RM180,000 and RM200,000 (Wan et al, 2010). However, the housing prices these days are far above the affordability level of this group of people, especially those who stay in the capital city (Kuala Lumpur).

Secondly, In the Tenth Malaysia Plan (10MP), the government focused on building houses in a suitable location and more conducive environment only for low-income group. Thus, many households may not be covered by the housing assistance program, because there are many people who are stuck in the middle-income trap, they do not qualify for low-cost housing and yet, cannot afford to buy even the "medium cost" residential projects. The middle-income

groups were left on their own to face the challenge in getting their own houses (Chiali & Choon, 2014).

Furthermore, male and female, Malay and non-Malay, Muslim and non-Muslim respondents were randomly selected from those group of people to see how they are all are responding to the measure of affordable housing. Measurement of "Affordable Livable Housing 2014" was used to measure respondents concern on housing price, safety and security, healthy environment, transportation choice, educational choice, economic development, community and neighborhood, public amenities and the psychological impact of housing on dwellers' wellbeing. "National Translate Institute" translated the questionnaires into Malay for those who preferred to answer in Malay. Overall reliability coefficient of this measurement was found to be alpha .756. And the reliability of each sub-scale is reported in the following table:

Table 1
*Alpha Reliability of the measurement Scale*

| Measurements | Scale | Number Of items | Alpha coefficient |
|---|---|---|---|
| Affordable Housing | Housing Price | 3 | .51 |
| Livable Housing | 1.   Housing quality/feature | 15 | .45 |
|  | 2.   Safety and security | 14 | .48 |
|  | 3.   Healthy environment | 8 | .27 |
|  | 4.   Transportation choice | 9 | .59 |
|  | 5.   Educational choice | 3 | .79 |
|  | 6.   Economic development | 6 | .78 |
|  | 7.   Community and neighborhood | 8 | .77 |
|  | 8.   Public amenities | 9 | .70 |
|  | 9.   Psychological impact of housing | 15 | .79 |

Note: N=20

The above indicated that the reliabilities were high for majority of the above scales, it is almost 0.7 and above. According to DeVellis (2003), ideally the Cronbach Alpha coefficient of a scale should be above 0.7. However, with short scales (e.g. scales with fewer than ten items), it is common to find quite low Crombach Values (e.g. less than .5), therefore, in short scale, it is more appropriate to report the mean inter-item correlation. Briggs & Cheek (1986) recommended an optimal range for the inter-item correlation of .2 to .4. And in the current research, the mean for the inter-item correlations of those scales with low Crombach Values are between: 0.2 to 0.4.

Four hundred questionnaires were distributed to middle-income groups and only 390 were collected back. The results of the questionnaires were distributed within two weeks, and the outcomes were discussed further in the coming sections.

**Literature Review**
Everyone have the right to live in house that meets his/her needs. Essentially to achieve this standard is through accessing adequate housing. Housing is a basic human need that Maslow explained in the hierarchy of needs; similar to food and drink (Manitoba, 2012); People must have food to eat, water to drink and a place to call home before they can think about anything else (Martin & Joomis, 2007). Maslow's theory demonstrates how important adequate

housing is for the security and positive development, and this is the second level of need; people must possess the security of a home and family in order to achieve the higher stage of need that is called "self-actualization" (Martin & Joomis, 2007). The important questions in this context are how many of us own a house? How many of these houses are affordable? What does affordable in first place mean? And how significant is that affordable housing is livable?

Several challenges exist for the terms affordability and livability, one of this is the lack of consensus concepts to define, classify or expand the term affordable livable home. According to Bhatta (2009) "affordable housing is housing deemed affordable to those with a median household income". Milligan et al (2007) identified it as "housing that is appropriate for the needs of a range of low to moderate income households and priced so that low and moderate income groups are able to meet their other essential basic living costs". More recent definitions are broader, and introduced by Maribyrnong City Council (2008), as "The well-located energy efficient housing, appropriate to the needs of a given household, (including access to transport, goods and services and employment) where the cost is no more than 30% of that household's income. Housing costs exceeding this per cent creates 'housing issues and stress'".

Furthermore, the Canada Mortgage & Housing Corporation (2008), identify 'affordable housing' as shelter which costs no more than 30% of one's total income. Affordable housing is broadly defined as housing that can be provided at a reasonable cost when compared to income, typically that which can be provided at no more than 30% per cent of gross household income for households with very low to moderate incomes. Based on these definitions, the low-and-middle income group does not have the alternatives to choose for a quality house, and they do not have many options to rent or buy an affordable house in the location that they like due to financial constraints.

The ratio of house prices to income is a key indicator of the relative affordability of the owner occupation. It is stated by HIA Economics Group (2010), that the ratio is used as one measure of trends in housing affordability over time. Bogdon and Can (1997) criticized the affordability literature that is only focusing on house prices rather than the condition, location and neighborhood characteristics of the housing. However, even today the majority of tools used to assess affordability have little or no regard for housing quality, conditions, location and neighborhood characteristics, i.e. what households get in return for what they spend on housing. But the question out of this discussion is how much these houses that deems affordable to be livable? What are the criteria of hose livable home? What does livable at first place means?

Lowe et al (2013), conceive a livable house as a place to be one that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities; via convenient public transport, walking and cycling infrastructure. However, there is an argument that an area is not truly livable unless it can be sustained over the long term (Chazal, 2010).

For families living with leaking roofs and roaches, for those who have to choose between paying for rent or for food, or for families who repeatedly move in search of higher quality or more affordable housing, one's place of refuge may not be very homey. Home/Housing is much more than just bricks and mortars; it is always being considered the family's haven. Housing plays an important role in Family's well-being, contributing to the physical and psychological health, safety and security outcomes, and love and belongingness need.

Accessing to appropriate, affordable and secure housing is an important component of individual and family wellbeing. It provides a base from which people can develop their capabilities, gain a sense of social connection through their community, and raise a family (Dockery, 2008).

Housing plays an important role in people's wellbeing, contributing to the physical and psychological health, safety and security outcomes, and love and belongingness need. In this context, the factors taken into account are not only physical aspect of livable housing but also the psychological aspect of dwellers living in affordable house, which do not meet the criteria of livable homes. The major challenge is the establishment of adequate, affordable livable housing standards and characteristics for the nation.

Essentially, it is important to explain how housing quality can affect the psychological wellbeing of the middle-income group. According to Noll & Weick (2005) that the individual quality of life in a home depends not only on one's household status, but also on the type, size and condition of the building they live in, as well as the infrastructural standards of the apartment or house, and the quality of the area of residence. It is also acknowledged that housing conditions, housing size, pollution and surrounding environment safety raise issues can affect the health and wellbeing of dwellers. Thus, the aim of this paper is to bridge the gap between affordable and livable housing, whilst taking into account Maslow's theory.

**Findings**
This study divided the findings into different sections; firstly, personal profile of the respondents. Secondly, determining the characteristic of affordable housing by measuring respondents' perspective toward affordability. Next is determining the characteristic of livable housing by evaluating respondents' perspective toward house feature, safety and security, healthy environments, transportation choice, educational choice, economic development, community and neighborhood and public amenities. Furthermore, examining the psychological effect of the situation in Malaysia for the affordable housing which does not meet the criteria of livable housing. Finally, bridging the gap between affordable and livable housing by examining how livable is affordable housing in Malaysia.

**Personal Profile**
Particular aspects of the personal profile, which were the focus of the study, include gender, age, nationality, race, marital status, educational level, job sector and monthly income. This profile encompassed some personality traits and aspects of socio-economic background. The following paragraphs and figures describe and discuss the findings.
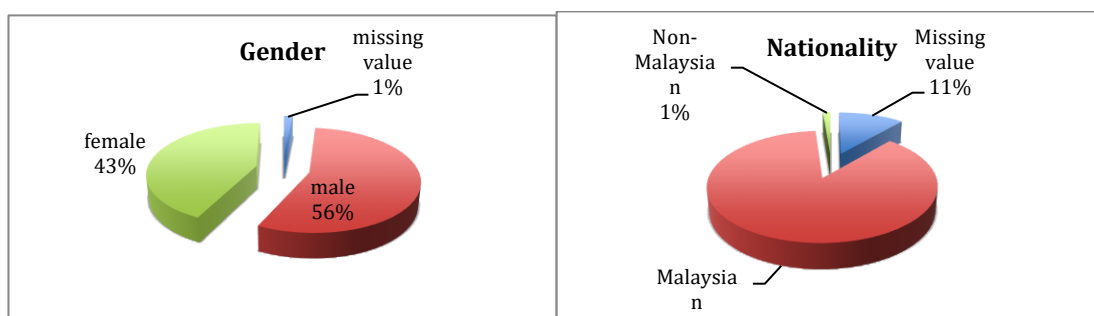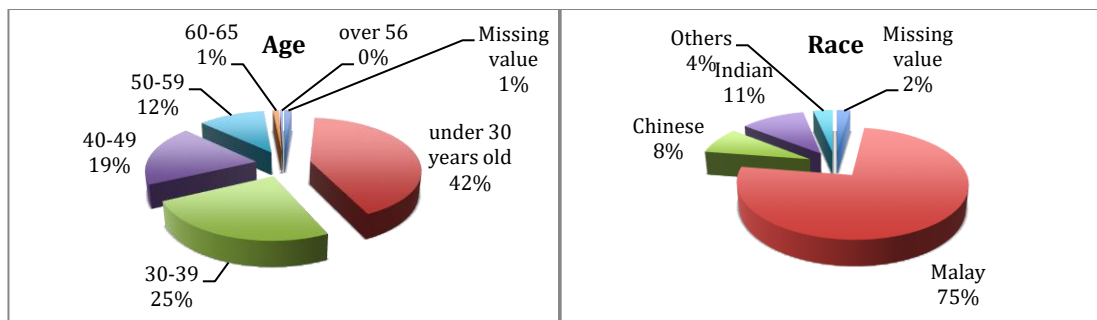
Figure: 1

Around 56% (n=217) of the sample consist of male, and 43% (n=167) consisted of female. Figure 1 reveals this findings, and the average age of respondents cover below 30 (42%) years, 30-39 (25%), 40-49 (19%), 50-59 (12%) and 60-65 (1%). The respondents studied were mainly local Malays. A very large majority (75%, n=293) of the selected respondents were of Malay ethnicity while the remaining (8%, n=32) were of Chinese ethnicity followed by the Indians (11%, n=43).
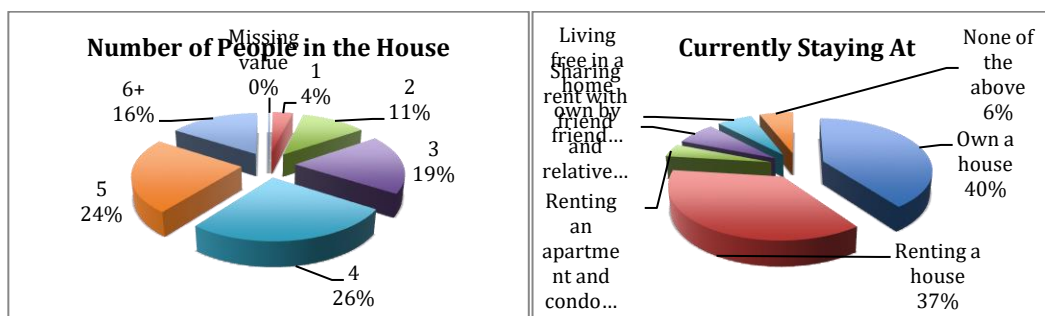


Figure: 2

Figure (2) indicated that around 37% of the samples are renting house and 40% own houses. Furthermore, majority 26% and 24% have 4 and 5 people in the house, respectively.
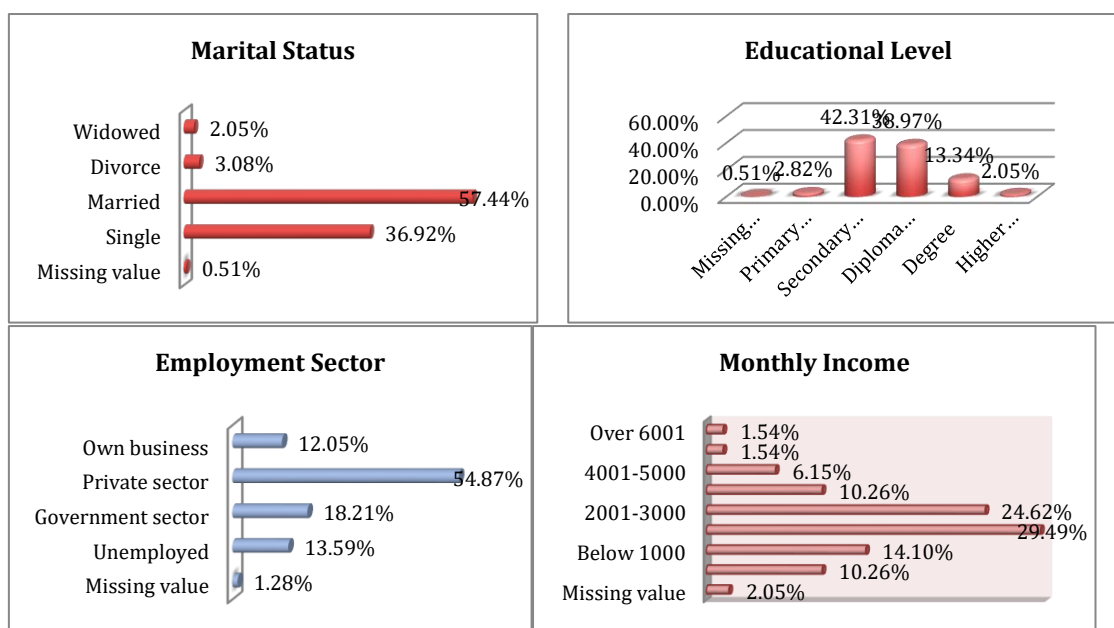


Figure: 3

The level of education was high among the respondents, majority of them were literate with only about 2.82% (n=11) of the respondents ONLY completing primary (year 6) school education. About 42.31% completed secondary education while 38.97% completed their Diploma level. Thirteen percent (n=52) and 2.05% (n=8) of the respondents have Degree (university education) and higher education, respectively. Nearly 54.44% of the respondents were married, 36.92% were single and the rest were either divorced or widowed. Furthermore, the income distribution/level was very low, majority of respondents 24.36% had income below RM1000 or no income at all. To a certain degree, this suggests a general feature of poor families in Malaysia. Nevertheless, almost 29.49% had a total income between RM1001-2000; a further 24.62% had a total income of between RM2001-3000, and 10.26% had a total income between RM3001-4000. Thus, this category formed the majority of the households; the remaining 9.23% had income above RM4001 per month (see Figure 3).

Table 2
*Cross Tabulation Between Monthly Income and other indicators*

| Monthly Income | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Missing Value** | **No Income** | **Below 1000** | **1001-2000** | **2001-3000** | **3001-4000** | **4001-5000** | **5001-6000** | **Over 6001** |
| **Marital Status** | **Missing Value** | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| | **Single** | 0 | 28 | 24 | 52 | 28 | 6 | 6 | 0 | 0 |
| | **Married** | 8 | 11 | 24 | 58 | 64 | 32 | 16 | 5 | 6 |
| | **Divorce** | 0 | 1 | 3 | 4 | 2 | 0 | 2 | 0 | 0 |
| | **Widowed** | 0 | 0 | 3 | 1 | 1 | 2 | 0 | 1 | 0 |
| **Total** | | 8 | 40 | 55 | 115 | 96 | 40 | 24 | 6 | 6 |
| **Number of people in** | **Missing value** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | **1** | 0 | 0 | 3 | 5 | 4 | 2 | 0 | 0 | 0 |
| | **2** | 0 | 2 | 15 | 11 | 10 | 4 | 2 | 0 | 1 |
| | **3** | 1 | 8 | 5 | 22 | 27 | 6 | 3 | 1 | 0 |
| | **4** | 2 | 12 | 4 | 35 | 25 | 11 | 9 | 4 | 1 |
| | **5** | 3 | 9 | 15 | 28 | 22 | 7 | 6 | 1 | 1 |
| | **6+** | 2 | 9 | 13 | 13 | 8 | 10 | 4 | 0 | 3 |
| **Total** | | 8 | 40 | 55 | 115 | 96 | 40 | 24 | 6 | 6 |

Table 2 shows that married respondents had the greatest financial difficulties; they are the majority who have income less than RM 3000 per month; out of 390 people almost 122 of them earn between RM1001-3000 per month. In 2009, the government has announced that RM 3,000 is poverty line for the urban poor. This means if you have three children and your household income is RM3000 or below, you are almost on the poverty line (National Economic Advisory Council, 2010).

## Determining The Characteristic Of Affordable Housing
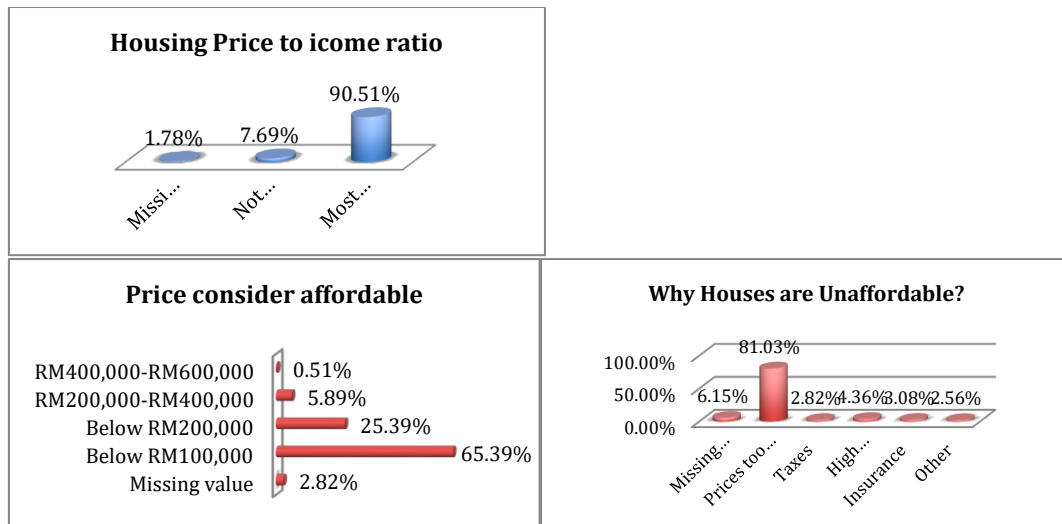### Housing Price

Figure: 4

The above figure (4) indicated that the majority complains about house price, they considered it as the most important issue these days. The Malay respondents reported that they can only afford to pay house price between RM100,000-200,000. The current house prices are beyond this amount, as it keeps increasing yearly. Chang Kim Loong, the HBA secretary-general, says just six years ago it was still possible for a single middle level manager earning RM5,000 a month to buy a new double-storey link house in areas like Kajang (Kuala Lumpur) for less than RM250,000, and for a single executive earning RM3,000 a month to buy a new condominium in the Old Klang Road area for about RM200,000. "Today, a new house are in excess of RM700,000 but a middle level manager is just earning RM6,000 or thereabout a month. Recent launches of condominiums around Old Klang Road area are in excess of RM600,000, while the average salaries of executives are still around RM3,500 a month" (Angie Ng, 2014). This in short, signifies that the house price in Kuala Lumpur is very expensive and not affordable at all.

Table 3
*Cross Tabulation Between reasons house not affordable and other variables*

| The Reasons Why Houses are Not Affordable | | Missing value | Prices too high | Taxes | High labor and material cost | Insurance | Other |
|---|---|---|---|---|---|---|---|
| **Gende** | Missing value | 3 | 3 | 0 | 0 | 0 | 0 |
| | Male | 7 | **183** | 5 | 10 | 7 | 5 |
| | Female | 14 | 130 | 6 | 7 | 5 | 5 |
| **Employment Secto** | Missing value | 2 | 2 | 1 | 0 | 0 | 0 |
| | Unemployed | 6 | 39 | 2 | 3 | 1 | 2 |
| | Government sector | 5 | 52 | 2 | 7 | 4 | 1 |
| | Private sector | 7 | **184** | 5 | 5 | 7 | 6 |
| | Own business | 4 | 39 | 1 | 2 | 0 | 1 |
| **Ag** | Missing value | 2 | 3 | 0 | 0 | 0 | 0 |
| | Under 30 years old | 10 | **133** | 5 | 8 | 2 | 5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 30-39 | 6 | 79 | 4 | 4 | 2 | 2 |
| | 40-49 | 4 | 58 | 1 | 4 | 6 | 1 |
| | 50-59 | 2 | 38 | 1 | 0 | 2 | 2 |
| | 60-65 | 0 | 3 | 0 | 1 | 0 | 0 |
| | Over 56 | 0 | 2 | 0 | 0 | 0 | 0 |
| **Marital Status** | Missing value | 0 | 2 | 0 | 0 | 0 | 0 |
| | Single | 9 | 117 | 4 | 9 | 2 | 3 |
| | Married | 13 | **183** | 5 | 7 | 9 | 7 |
| | Divorce | 1 | 8 | 2 | 0 | 1 | 0 |
| | Widowed | 1 | 6 | 0 | 1 | 0 | 0 |
| **Monthly Income** | Missing value | 2 | 6 | 0 | 0 | 0 | 0 |
| | No income | 5 | 31 | 1 | 3 | 0 | 0 |
| | Below 1000 | 6 | 35 | 4 | 4 | 1 | 5 |
| | 1001-2000 | 6 | **98** | 1 | 4 | 5 | 1 |
| | 2001-3000 | 3 | **81** | 3 | 2 | 5 | 2 |
| | 3001-4000 | 0 | 33 | 2 | 3 | 1 | 1 |
| | 4001-5000 | 0 | 23 | 0 | 1 | 0 | 0 |
| | 5001-6000 | 1 | 4 | 0 | 0 | 0 | 1 |
| | Over 6001 | 1 | 5 | 0 | 0 | 0 | 0 |

Measuring the reasons "why houses are not affordable"; majority reported, "Prices are too high". Similar result was found by Salfarina et al (2011), that the main issue faced by the Malaysia citizen is housing prices, which are too high, and beyond their affordability. The above table (3) also revealed that male respondents complain more about housing price than female respondents. Married respondents, staff in private sectors, respondents below 30-years old, and those income levels are between RM1001-3000 per month complain more about housing price than non-married, government staff, above 30 years old, and those income is more than RM3000, respectively.

**Determining The Characteristic Of Livable Housing**
**1. Housing Features**



Figure: 5

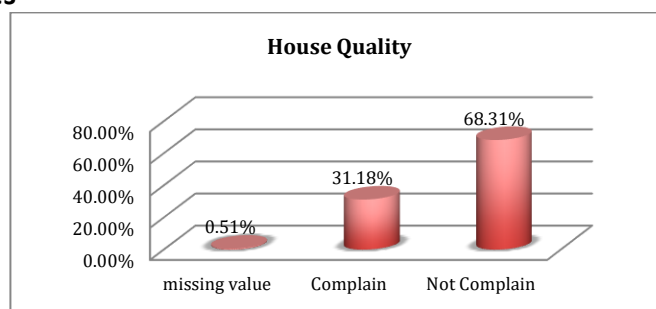The above figure 5 shows that majorities of 68.31% did not complain about housing quality and feature. This might conclude that either the house is in a good condition or participants have no choice but to accept the house as it is.
To be more detailed, the entire home quality was measured in order to see what are the things that respondents did not like at their current place, and the details are as follows:

Table 4
*Housing Quality and Criteria*

|  | HOUSING QUALITY AND FEATURE |  | Frequency | Percent |
|---|---|---|---|---|
| 1 | Do you live in the city/town? | Yes | 333 | 85.38% |
|  |  | No | 57 | 14.62% |
| 2 | Is your home crowded? | Missing Value | 3 | 0.77% |
|  |  | Yes | 148 | 37.95% |
|  |  | No | 239 | 61.28% |
| 3 | Is your house too small in size? | Missing Value | 3 | 0.77% |
|  |  | Yes | 192 | 49.23% |
|  |  | No | 195 | 50% |
| 4 | Are you living in a share house? | Missing Value | 4 | 1.03% |
|  |  | Yes | 104 | 26.67% |
|  |  | No | 282 | 72.31% |
| 5 | Would you like to keep living there? | Missing Value | 7 | 1.79% |
|  |  | Yes | 179 | 45.89% |
|  |  | No | 204 | 52.31% |
| 6 | Is the quality of your house acceptable to you? | Missing Value | 7 | 1.79% |
|  |  | Yes | 218 | 55.89% |
|  |  | No | 165 | 42.31% |
| 7 | If you live in an apartment is there lifts provided? | Missing Value | 58 | 14.87% |
|  |  | Yes | 193 | 49.49% |
|  |  | No | 139 | 35.63% |
| 8 | Do you have enough parking? | Missing Value | 9 | 2.31% |

| | | | | |
|---|---|---|---|---|
| | | Yes | 147 | 37.67% |
| | | No | 234 | 60.02% |
| 9 | | Missing Value | 8 | 2.10% |
| | | Yes | 100 | 25.60% |
| | Are you living somewhere, which is poor repair? | No | 282 | 72.30% |
| 10 | | Missing Value | 6 | 1.54% |
| | | Yes | 289 | 74.10% |
| | Is there any clinic nearby your home? | No | 95 | 24.36% |
| 11 | | Missing Value | 1 | 0.26% |
| | | Yes | 190 | 48.72% |
| | Is you house enough for the number of people who stay? | No | 199 | 51.03% |
| 12 | | Missing Value | 9 | 2.31% |
| | | Yes | 191 | 48.97% |
| | Are you living too far from your family or other supports? | No | 190 | 48.72% |
| 13 | | Missing Value | 3 | 0.77% |
| | | Yes | 219 | 56.15% |
| | Do you have Swimming pool, football field or/and playground near your place? | No | 168 | 43.08% |
| 14 | | Missing Value | 1 | 0.26% |
| | | Yes | 319 | 81.79% |
| | Does your house near to the shops, laundries, and food courts? | No | 70 | 17.95% |
| 15 | | Missing Value | 4 | 1.03% |
| | | Yes | 173 | 44.36% |
| | Does your house is suitable for the disability of the person you care for or for you when you get older? | No | 213 | 54.62% |

With regards to the home conditions of middle-income group, table 4 illustrates that the majority declared their homes do not have sufficient parking (60.02), the home size is too small (49.23%), the space does not fit the number of people who stay in (51.03%), and the design does not suit disabled people (54.62), therefore, they do not like to continue living there (52.31%).

**Safety and Security**
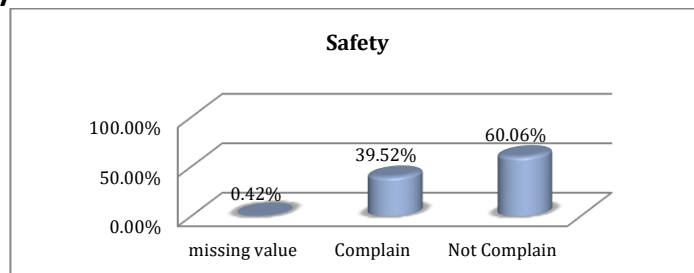


Figure: 6

In terms of safety, figure 6 showed that only 39.52% of the respondents complained about home safety, but the other 60.06% did not complain.

Table 5
*Home Safety and Security*

| | SAFETY AND SECURITY | | Frequency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 2 | 0.51% |
| | | Yes | 137 | 35.13% |
| | Do you have guards at your place? | No | 251 | 64.36% |
| 2 | | Missing Value | 1 | 0.26% |
| | | Yes | 212 | 54.36% |
| | Is it safe walking at night in your area? | No | 177 | 45.38% |
| 3 | | Missing Value | 3 | 0.77% |
| | | Yes | 180 | 46.15% |
| | Are you living somewhere, which is noisy? | No | 207 | 53.08% |
| 4 | | Missing Value | 6 | 1.54% |
| | | Yes | 304 | 77.95% |
| | Do you trust the neighbors in your place? | No | 80 | 20.51% |

| 5 | Do the people in your place involve in crime? | Missing Value | 6 | 1.54% |
| | | Yes | 122 | 31.28% |
| | | No | 262 | 67.18% |
| 6 | Are you living somewhere where you feel safe? | Missing Value | 3 | 0.77% |
| | | Yes | 207 | 53.08% |
| | | No | 180 | 46.15% |
| 7 | Do the guards keep awake at night in your condominium? | Missing Value | 49 | 12.56% |
| | | Yes | 106 | 27.179% |
| | | No | 235 | 60.26% |
| 8 | Is the fire hose available at your place? | Missing Value | 1 | 0.26% |
| | | Yes | 271 | 69.49% |
| | | No | 118 | 30.26% |
| 9 | Are you living someplace where their residents involve in drugs? | Missing Value | 9 | 2.31% |
| | | Yes | 109 | 27.95% |
| | | No | 272 | 69.74% |
| 10 | Are you living someplace where their residents involve in petty crimes? | Missing Value | 2 | 0.51% |
| | | Yes | 186 | 47.69% |
| | | No | 202 | 51.79% |
| 11 | Are you living someplace where their residents involve in house robbing? | Missing Value | 1 | 0.26% |
| | | Yes | 158 | 40.51% |
| | | No | 231 | 59.23% |
| 12 | Are you living someplace where their residents involve in bag snatching? | Missing Value | 3 | 0.77% |
| | | Yes | 146 | 37.44% |

|  |  |  |  |  |
|---|---|---|---|---|
|  |  | No | 241 | 61.79% |
| 13 | Is there any kidnapping cases ever reported around your place? | Missing Value | 1 | 0.26% |
|  |  | Yes | 88 | 22.56% |
|  |  | No | 301 | 77.18% |
| 14 | Is there police posts/patrol near/around your place? | Missing Value | 6 | 1.54% |
|  |  | Yes | 208 | 53.33% |
|  |  | No | 176 | 45.13% |

With regards to the house safety and security, table 5 shows that although almost half of the respondents live somewhere that is not safe walking at night (45.38%), the residents involve in petty crimes (47.69%) and robbing (40.51%), the houses either have no guards at all (64.36%) or the guards hardly keep awake at night (60.26%).
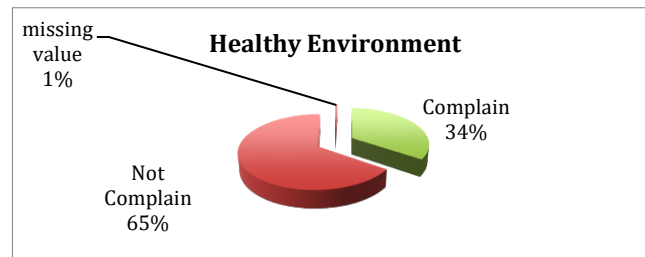
**Healthy Environment**



Figure: 7

In terms of healthy environment, figure 7 shows that only 34% of the respondents complained, however, the other 65% did not complain. And for those who complained, the details as follows

Table 6
*Home Environments*

| | HEALTHY ENVIRONMENT | | Freqency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 2 | 0.51% |
| | | Yes | 326 | 83.59% |
| | Is the rubbish being taken care frequently in your area? | No | 62 | 15.89% |
| 2 | | Missing Value | 4 | 1.03% |
| | | Yes | 168 | **43.08%** |
| | Do you complain about mosquitos or flies? | No | 218 | 55.89% |
| 3 | | Missing Value | 2 | 0.51% |
| | | Yes | 231 | 59.23% |
| | Do you have a clean air quality at your area? | No | 157 | **40.26%** |
| 4 | | Missing Value | 4 | 1.03% |
| | | Yes | 70 | 17.95% |
| | Are you living somewhere that is too dirty? | No | 316 | 81.03% |
| 5 | | Missing Value | 4 | 1.03% |
| | Are you living somewhere that costs a lot to heat and/or cool? | Yes | 192 | **49.23%** |
| | | No | 194 | 49.74% |
| 6 | | Missing Value | 2 | 0.51% |
| | | Yes | 255 | 65.38% |
| | Are you satisfied with electromagnetic (power lines, cell phones, etc.)? | No | 133 | 34.10% |
| 7 | | Missing Value | 2 | 0.51% |
| | | Yes | 265 | 67.95% |
| | Are you satisfied with the quality of drinking water supply in your home? | No | 123 | **31.54%** |

| 8 | | Missing Value | 6 | 1.54% |
|---|---|---|---|---|
| | | Yes | 178 | **45.64%** |
| | Are you disturbed with vehicle pollution, Industrial or any other pollution? | No | 206 | 52.82% |

With regards to the environment of the middle-income group areas, table 6 illustrates that the majority complained about mosquitos (43.08%), air pollution (40.26%), hot location (49.23%), and vehicle disturbance (45.64%).
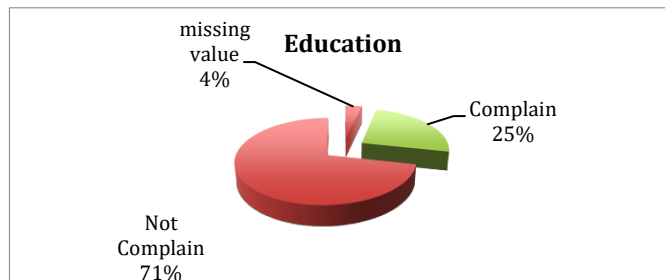
**Education Choice**



Figure: 8

Figure 8 show that only 25% of the respondents complained about educational choices, whereas, the other 71% did not complain at all.

Table 7
*Educational Choices*

| | **EDUCATIONAL CHOICE** | | Freqency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 16 | 4.10% |
| | | Yes | 249 | 63.85% |
| | Do you have a childcare at your place? | No | 125 | 32.05% |
| 2 | | Missing Value | 17 | 4.36% |
| | | Yes | 294 | 75.38% |
| | Do you live near to your child s pre-school/primary school/secondary school? | No | 79 | 20.26% |
| 3 | | Missing Value | 16 | 4.10% |
| | | Yes | 250 | 64.10% |
| | Is there any tuition centre nearby? | No | 124 | 31.79% |

With regards to educational choice, Table 7 shows that only small numbers of respondents illustrated that no childcare facilities (32.05%) and tuition centers (31.79%) near their home, and 20.26% of respondent's children travel daily to schools that are located far from their house.
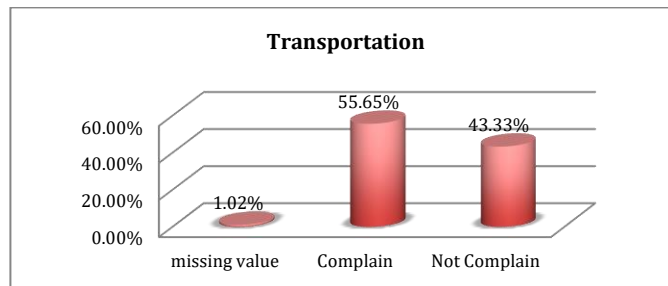
**Transportation Choice**



Figure: 9

Figure 9 illustrates the transportation issue for middle-income group, the majority 55.65% declared that transportation is a big issue, whereas, only 43.33% did not complain.

Table 8
*Transportation Choices*

| | TRANSPORTATION CHOICE | | Freqency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 42 | 10.77% |
| | Does your child use school bus to go into the school? | Yes | 203 | 52.05% |
| | | No | 145 | 37.18% |
| 2 | | Missing Value | 46 | 11.79% |
| | | Yes | 139 | 35.64% |
| | Do your children have transportations problems when they go to schools? | No | 205 | 52.56% |
| 3 | | Missing Value | 9 | 2.31% |
| | | Yes | 271 | 69.49% |
| | Do you use private transportation? | No | 110 | 28.21% |
| 4 | | Missing Value | 9 | 2.31% |
| | | Yes | 99 | 25.38% |
| | Do you have more than two cars? | No | 282 | 72.31% |

| | | | | |
|---|---|---|---|---|
| 5 | | Missing Value | 5 | 1.28 % |
| | | Yes | 157 | 40.26 % |
| | Do you often use public transportation? | No | 228 | 58.46 % |
| 6 | | Missing Value | 2 | 0.51 % |
| | | Yes | 268 | 68.72 % |
| | Is your house near to the bus station? | No | 120 | 30.77 % |
| 7 | | Missing Value | 3 | 0.77 % |
| | | Yes | 283 | 72.56 % |
| | Do taxis easily come to your place? | No | 104 | 26.67 % |
| 8 | | Missing Value | 5 | 1.28 % |
| | | Yes | 116 | 29.74 % |
| | Is your house near to the LRT/MRT station? | No | 269 | 68.97 % |
| 9 | | Missing Value | 6 | 1.54 % |
| | | Yes | 212 | 54.36 % |
| | Do you spend more money on transportation? | No | 172 | 44.10 % |

With regards to the transportation choice, table 8 shows that although 40.26% of respondents often use public transportations, 54.36% complained about it's cost; they spend more money on transportations than other things. And 68.97% complained about the distance; they stay far from LRT/MRT stations.
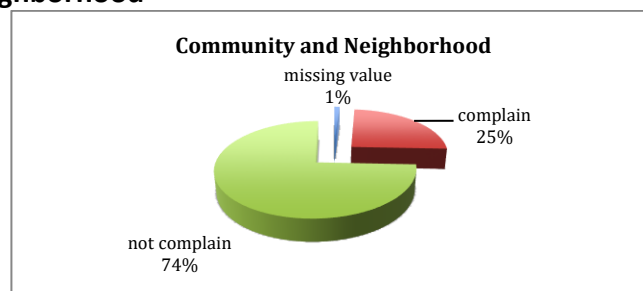
**Community and Neighborhood**



Figure: 10

The above figure 10 shows that only 25% of the respondents complained about community and neighborhoods issue, whereas, the other 74% did not complain.

Table 9
*Community and Neighborhood*

| | COMMUNITY AND NEIGHBORHOOD | | Frequency | Percent |
|---|---|---|---|---|
| 1 | Are your neighbors friendly? | Missing Value | 7 | 1.79% |
| | | Yes | 320 | 82.05% |
| | | No | 63 | 16.15% |
| 2 | Are your neighbors helpful? | Missing Value | 5 | 1.28% |
| | | Yes | 315 | 80.77% |
| | | No | 70 | 17.95% |
| 3 | Do you like your neighbors? | Missing Value | 4 | 1.03% |
| | | Yes | 317 | 81.28% |
| | | No | 69 | 17.69% |
| 4 | Do you trust your neighbors? | Missing Value | 6 | 1.54% |
| | | Yes | 295 | 75.64% |
| | | No | 89 | 22.82% |
| 5 | Do you stay in a close community? | Missing Value | 5 | 1.28% |
| | | Yes | 262 | 67.18% |
| | | No | 123 | 31.54% |
| 6 | Did you face any problems with neighbors? | Missing Value | 6 | 1.54% |
| | | Yes | 107 | 27.44% |
| | | No | 277 | 71.03% |
| 7 | Do your place has a community club/association? | Missing Value | 4 | 1.03% |
| | | Yes | 223 | 57.18% |
| | | No | 163 | 41.79% |
| 8 | Are you a member of any of the association? | Missing Value | 5 | 1.28% |
| | | Yes | 142 | 36.41% |
| | | No | 243 | 62.31% |

With regards to community and neighborhood types, table 9 illustrates that the majority 81.28% of the respondents were happy, satisfied and likes their neighbors, because they believe that they are friendly (82.05%), helpful (80.77%), trustworthy (75.64%), close community (67.18%) and have no problem with them (71.03%).
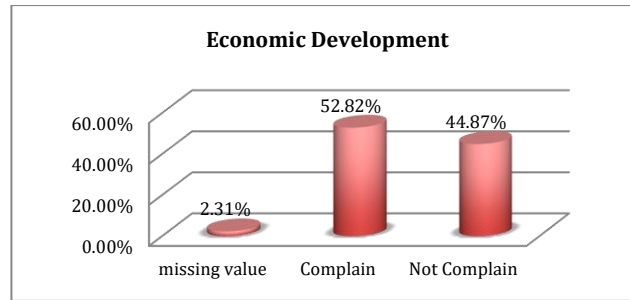
**Economic Development**



Figure: 11

The above figure 11 shows that majority 52.82% respondents complained about the economic development, whereas, the other 44.87% did not complain.

Table 10
*Economic Development*

| | ECONOMIC DEVELOPMENT | | Frequency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 15 | 3.85% |
| | Is your office near to your house? | Yes | 124 | 31.79% |
| | | No | 251 | 64.36% |
| 2 | | Missing Value | 14 | 3.59% |
| | | Yes | 161 | 41.28% |
| | Do you afford living near to your work? | No | 215 | 55.13% |
| 3 | | Missing Value | 15 | 3.85% |
| | | Yes | 248 | 63.59% |
| | Do you like to move nearer to your office? | No | 127 | 32.56% |
| 4 | | Missing Value | 14 | 3.33% |
| | | Yes | 208 | 53.33% |
| | Does your house price suite your incomes? | No | 169 | 43.33% |
| 5 | | Missing Value | 19 | 4.87% |
| | Do you work in the same city where you live? | Yes | 232 | 59.49% |

| | | | | |
|---|---|---|---|---|
| | | No | 139 | 35.64% |
| 6 | Is your home near to any commercial/industrial zone? | Missing Value | 20 | 5.13% |
| | | Yes | 190 | 48.72% |
| | | No | 180 | 46.15% |

In terms of economic development, table 10 shows that majority 64.36% respondents complained about the distance; they stay far from the workplace. Although 63.59% respondents like to stay near the office, 55.13% not afford the living cost of being near to the workplace.
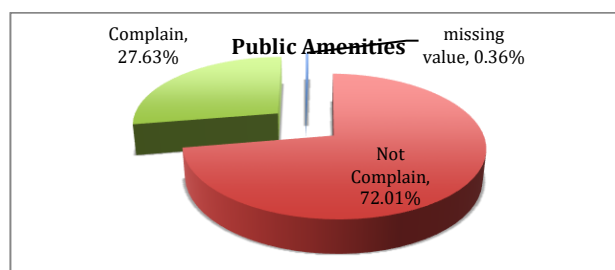
**Public Amenities**



Figure: 12

The above figure 12 shows that the majority 72.01% respondents did not complain about public amenities and only 27.63% respondents complained. More detail in table 11

Table 11
*Public Amenities*

| | PUBLIC AMENITIES | | Frequency | Percent |
|---|---|---|---|---|
| 1 | Do you stay near to the wet markets? | Missing Value | 4 | 1.03% |
| | | Yes | 259 | 66.41% |
| | | No | 127 | 32.56% |
| 2 | Is the grocery near to your house? | Yes | 334 | 85.64% |
| | | No | 56 | 14.36% |
| 3 | Is there a public library near to your house? | Missing Value | 5 | 1.28% |
| | | Yes | 82 | 21.03% |
| | | No | 303 | 77.69% |

| | | | | |
|---|---|---|---|---|
| 4 | | Missing Value | 2 | 0.51% |
| | | Yes | 272 | 69.74% |
| | Is there a playground near to your home? | No | 116 | 29.74% |
| 5 | | Missing Value | 1 | 0.26% |
| | | Yes | 200 | 51.28% |
| | Is there shopping complex near to your house? | No | 189 | 48.46% |
| 6 | | Missing Value | 2 | 0.51% |
| | | Yes | 220 | 56.41% |
| | Is there any sports facilities near to your house? | No | 168 | 43.08% |
| 7 | | Missing Value | 1 | 0.26% |
| | Is the coverage of internet/broadband access good at your place? | Yes | 256 | 65.64% |
| | | No | 133 | 34.10% |
| 8 | | Yes | 309 | 79.23% |
| | Is there a mosque near your place? | No | 81 | 20.77% |
| 9 | | Missing Value | 3 | 0.77% |
| | | Yes | 260 | 66.67% |
| | Is the drainage system being taken care in your place? | No | 127 | 32.56% |

With regards to public amenities, table 11 shows that 66.41% respondents stay near to the wet market, 85.54% respondents are closed to the grocery shops, 69.74% respondents have playground in their areas, 56.41% respondents have sports facilities nearby their place, 51.28% respondents stay close to the shopping complex, and 79.23% respondents have mosque near their house. And the only thing respondents complained was the public library; 77.69% respondents indicated that they do not have public library at their area.

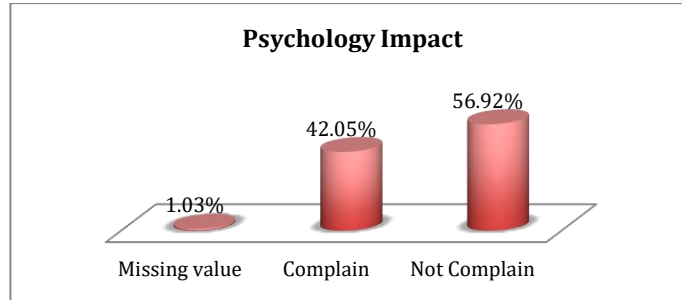**The Psychological Effect Of Housing Conditions**



Figure: 13

The situation in Malaysia is not optimistic for the affordable housing, which does not meet the criteria of livable home. About 42.05% of respondents complained that their house have an impact on their psychological wellbeing, and the details are as follows:

Table 12
*Psychological Impact*

| | PSYCHOLOGICAL IMPACT | | Frequency | Percent |
|---|---|---|---|---|
| 1 | | Missing Value | 4 | 1.03% |
| | | Yes | 275 | 70.51% |
| | Are you happy where you are staying? | No | 111 | 28.46% |
| 2 | | Missing Value | 6 | 1.54% |
| | Are you stressed where you are staying? | Yes | 113 | 28.97% |
| | | No | 271 | 69.49% |
| 3 | | Missing Value | 30 | 7.69% |
| | | Yes | 143 | 36.67% |
| | Is your place is affecting your child s behavior? | No | 217 | 55.64% |
| 4 | | Missing Value | 5 | 1.28% |
| | | Yes | 136 | 34.87% |
| | Are you shame of inviting friends at your place? | No | 249 | 63.85% |
| 5 | Are you tense thinking of your house condition? | Missing Value | 9 | 2.31% |
| | | Yes | 179 | 45.89% |

| | | | | |
|---|---|---|---|---|
| | | No | 202 | 51.79% |
| 6 | | Missing Value | 36 | 9.23% |
| | | Yes | 140 | 35.89% |
| | Is your child spending most of the time outside the house? | No | 214 | 54.87% |
| 7 | | Missing Value | 35 | 8.97% |
| | | Yes | 162 | 41.54% |
| | Is your house size affecting your child s growth and well-being? | No | 193 | 49.49% |
| 8 | | Missing Value | 5 | 1.28% |
| | | Yes | 102 | 26.15% |
| | Do you feel tense and can not breath because of your house size? | No | 283 | 72.56% |
| 9 | | Missing Value | 4 | 1.03% |
| | | Yes | 260 | 66.67% |
| | Have you ever worried over the possibility of robbery at your house? | No | 126 | 32.31% |
| 10 | | Missing Value | 10 | 2.56% |
| | | Yes | 212 | 54.36% |
| | Do you feel jittery because of the noises and pollutions at your place? | No | 168 | 43.08% |
| 11 | | Missing Value | 35 | 8.97% |
| | | Yes | 131 | 33.59% |
| | Are there any changes on your child's attitude as an outcome of the place you are staying? | No | 224 | 57.44% |
| 12 | | Missing Value | 4 | 1.03% |
| | | Yes | 257 | 65.89% |
| | Do you feel depressed when you heard about the cases of crimes at your place? | No | 129 | 33.08% |
| | Do you find it difficult to live in that kind of house but you have no other choice? | Missing Value | 4 | 1.03% |

| | | | | |
|---|---|---|---|---|
| 1 3 | | Yes | 217 | 55.64% |
| | | No | 169 | 43.33% |
| 1 4 | Did you ever worry about your family because of the unsafe house environment? | Missing Value | 6 | 1.54% |
| | | Yes | 266 | 68.21% |
| | | No | 118 | 30.26% |
| 1 5 | Do you feel indecisive when you are out, and think whether to go back home or stay outside all the time? | Missing Value | 5 | 1.28% |
| | | Yes | 153 | 39.23 |
| | | No | 232 | 59.49% |

With regards to the psychological wellbeing table 12 illustrates that more than 30% of respondents are ashamed to invite their friends in their house, and that the size of the home affect their child's attitude and behavior. Due to the lack of space, their children are always spending most of their time outside the house. Furthermore, more than 40% of the respondents complained about the tension of thinking about their home conditions that is affecting the growth and wellbeing of the entire family. In addition to that, more than 50% of respondents are jittery because of the noises and pollutions that they face almost daily; respondents find it difficult to live in that kind of house but they have no other choice. Altogether, more than 60% of respondents were worried about the unsafe home environment and the possibility of robbery at their home.

**Conclusion**

Housing circumstances often have a direct impact on the family wellbeing. The issue of affordable livable housing is of a major concern to many families these days. In the past, housing was not a big issue as the populations were less and the houses were sufficient and cheap. But now the issue is just the opposite, the population is getting bigger and the houses are becoming more expensive. In the future, this issue will become worse and ever more important in promoting the health and well being of the middle-income groups. The significance of this study is that affordable housing is not sufficient if the house is not livable. Thus, any affordable house must be psychologically livable so the dwellers can feel safe and have peace of the living.

The purpose of this research was to measure the criteria of livable and affordable houses that contributed to well being of the middle-income group in Malaysia. According to Baqutayan et al (2015), due to the existing gaps between affordable and livable home; those affordable homes might not be livable or/and sustainable at all. Therefore, the focus was mainly on criteria as: home price (affordability); feature (size, spacing, lifts, parking and other needs); safety and security (area with low crime, caring neighbors); quality of life (proximately to education, health care center, and sports facilities); access to transportation (bus, LRT station, trains, and other transportation); social participation and connection (community facilities, meeting places, neighbors communication place); access to public amenities (shops, wet

market, supermarket, playground, mosque); access to services (offices, work, police, ambulance, fire and rescue and other government services); and open spaces (parks, trees, nature reserves).

The outcomes showed that they're a gap existed between affordable and livable home. Furthermore, the finding of the study detailed the followings: (a) majority of the respondents were Malays middle-income household, they monthly earn between RM1000-3000; (b) inconsistency between housing price, living cost and income ratio; (c) the majority were complaining about housing price that is beyond the affordability; (d) the housing affordability is the main issue in Malaysia; (e) the other issues were transportation cost, safety and security as well as economic development; (e) parking and home size is an issue to some respondents; (f) public library is not available at middle-income house areas.

Several conclusions can be drawn from this discussions and outcomes, which can clearly contribute to both theoretical and contextual research. First, housing affordability is a complex issue that is difficult to describe, because it involves individual judgments and different evaluations. Second, affordable livable home characteristic mentioned in this research is not the only one; there are many more characteristics need to be considered in future research. Third, government must work hard to understand affordable housing conditions in order to improve the quality of houses for all citizens without too much of burden to those in the low and middle-income groups. Therefore, affordable housing should be in an excellent location just few minutes to the garden, supermarket, playground and public library. The home should offers a range of lifestyle spaces such as room for parent, rooms for children, space for them to play and study, a hall for the family to sit, and kitchen with dining space. The property should be a walking distance to children's schools, an array of cafes and boutique shopping as well as public transport. The area should also be easily renowned for it is friendly neighborhoods, parks, tree lined streets and transformation with newly constructed homes.

**Acknowledgment**

**Conflict of Interest**
The authors hereby declare that they have no conflict of interests.

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