An Analysis of the Selection Criteria in Purchasing a House in Klang Valley towards the Quality Affordable Housing

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Abstract: The world has seen an increment demand of affordable housing areas because the houses currently built in the market are not affordable to the public. This issue has been widely discussed not only in Malaysia, but also in other developing countries. The Malaysian Government has taken an initiative to overcome this problem by developing low-cost housing areas. However, this initiative has been met with poor reviews to the disappointment of the public. No fixed criteria has been set to determine the minimum quality of housing development. Emphasizing on quality housing as a home does not only serve the purpose of being a shelter, but also as a means of creating quality communities. Several factors help in the decision to buy a house. One of these factors is the quality of the house. Therefore, this paper identifies factors that influence the decision of purchasing a house. The feedback and perceptions of the respondents show human needs and requirements. These perceptions are important to identify the criteria for quality affordable housing. Two hundred respondents were interviewed to obtain their perceptions and views on the factors that influence the outcome of purchasing a home. To gauge the needs and requirements of respondents, the samples were distributed randomly to the respondents who purchased a house or are planning to buy one. These factors are assessed using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive analysis is used to determine the frequency and total percentage. The Cronbach's alpha is used to determine the validity, which shows that the questions regarding home selection criteria has a good fit with Cronbach's alpha of 0.952. The research finding shows that 74% of the respondents strongly agreed that house price is the main criteria that they would consider when purchasing their own house. The research findings also reveal the deficiencies of the current home of the respondents, which include the small gross floor area was small compared to the house price.This study is important in determining the criteria that should be considered in promoting quality affordable housing in the future and in understanding customer needs. This study provides the implications of the development of new affordable housing. Thus, these criteria could be used as a checklist for the designer or the architect in developing a new affordable housing design in Malaysia.

1. Introduction

Appraising and detemining public satisfaction and response are among the strategies to gauge quality level. The traditional method of controlling quality to satisfy customer requirements is to look for the causes of problems and prevent the causes from recurring (Mizuno and Akao, 1994). Studies were conducted that examined the various aspects of satisfactions, such as residential and customer satisfaction. The present study explores the factors in purchasing a house and the criteria that influence the purchase satisfaction. The existing quality paradigm, which indicates that a quality product conforms to specifications, is inadequate. Consumers expect their needs to be satisfied even when those needs are not defined perfectly (Kenny, 1988).

Shelter is one of the basic human needs. Demand for quality housing area has increased rapidly especially in urban areas. During the early 1990s, Malaysia experienced rapid urbanization because of continuous economic growth (Syafiee Shuid, 2010). In 2000, majority of the population were concentrated along the west coast of peninsular of Malaysia, especially in Klang Valley (Statistical Department of Malaysia, 2009). Housing issue occurred in Malaysia because of the urbanisation process (Taib Osman, 2004). Thus, urbanisation is one of the main factors that increased the demand for housing in urban areas (Aminah Md. Yusof and Azimanh Razali, 2004). Generally, a high demand for housing causes the prices of houses to increase. This phenomenon has directly affected low and middle income families because they cannot afford housing

prices (Aminah Md. Yusof and Azimah Razali, 2004; Mohd Razali Agus, 2000).

Housing has became a popular issue in developed countries all over the world. Housing issues, especially the issue of affordability, is substantial because of the increasing housing market price and the lack of affordable housing supply. Housing supply issue arises when house developers have less interest in developing a low- to medium-cost housing area (Bujang and Abu Zarin, 2008). This situation occurred because developers tend to develop high-cost housing in consideration of margin profit. To meet the demands, the goverment launched various housing policies and programs (Tan, 2012). These housing policies focus on various housing programs in rural and urban areas to pprovide affordable housing. Under the Seventh Malaysia Plan (1996 to 2000) and the Eight Malaysia Plan (2001 to 2005), the Malaysian goverment is committed to providing adequate, affordable, and quality housing for all Malaysians (Noor Yasmin Zainun et al., 2010). The Tenth Malaysia Plan ensures that citizens of Malaysia from all income levels have the opportunity to acquire houses that are within their affordability (Alinor Sufian and Ahmad Ibrahim, 2011). However, the challenge is to match the demands for housing supply based on location and affordability (The Economic Planning Unit, 2010).

This paper is important as it identifies factors that influence the decision of purchasing a house. The feedback and perceptions of the respondents show human needs and requirements. Study on customer perception or satisfaction is important to identify the criteria for quality affordable housing; a similar approach was adopted by the British Government to improve the quality of new housing, wherein the house builders from the private sector searched for ways to become more customer-focused (Barlow and Ozaki, 2003). Customer focus should be able to identify the needs of users; this concept also contributed to the marketing component because customer satisfaction could lead to positive consequences (Chee and Peng, 1996).

2. Quality Affordable Housing

Quality is one of the competitive strategies in today's global market (Park and Kim, 1998). One aspect that the construction industry can improve on is its ability to accurately determine client requirements and successfully transform these requirements into plans and specifications to construct a facility. The rapid pace of development in the world of industrialisation, mechanisation, technological breakthroughs, and innovative designs has set a new paradigm of product quality expected by consumers (Abdul-Rahman, Kwan, and Woods,

1999). The concept of quality affordable housing emerged in Malaysia because of people's dissatisfaction with the quality of low-cost housing. Quality housing has received considerable attention because of the lack of standard criteria in determining quality housing. The quality of affordable housing has been discussed mostly for the purposes of the structure itself, wherein the house is not only a shelter but also as a means of creating communities, which emphasizes on the functions of the house (United Nations, 1978; Noor Sharipah, 2010). Quality affordable housing involves two elements that should be clearly defined in this research. The first element is affordable housing, and second element is quality housing.

Ahmad Zaki (1997) defined affordable housing as the affordability of housing that measures the cost of a house against the amount of buyers that can afford it. Housing affordability ensures that every income group, whether low-income earner or high income group, can afford to buy a house (Tawil, 2010). Most agencies and experts agree that housing is deemed as affordable if it does not cost more than 30% of the household income. This assessment is usually taken as rule-of-thumb in allocating family expenses. However, as income goes down, the percentage of income spent on housing rises.

The quality of housing remains part of the discussion on the criteria and standards of quality housing. However, Noor Sharipah (2010) suggested that the quality of housing should be assessed on a multi-dimensional perspective, particularly with respect to the functions of housing in meeting human needs. Good housing should fulfil the various functions, the important ones being for shelter, family life, economic stability, family participation, and access to community facilities (United Nations, 1977; Noor Sharipah, 2010).

Realising the importance of quality in any housing program, HUD) established the minimum criteria that should be observed to ensure the health and safety of the owner of a housing program. Housing spaces have physical and psychological effects to the owner because spaces are places for personal development, recreation, and self-accentuation. This finding also shows that the size of a room is another factor that affects the occupant. People who live in unhealthy indoor environments are likely to contract diseases, such as pneumonia, tuberculosis, typhoid fever, and others (Zinas and Jusan, 2014). Zinas and Jusan (2014) also stressed that the housing interior space is of paramount significance. House owners and prospective house owners perceive the interior as a key to develop attachment to the house. The choices of finishing materials always create certain motivations and

perceptual orientations while they are being undertaken. Housing and housing spaces are places for personal development. The lack of sufficient rooms could restrain family institutions. This shows that the provision of quality affordable housing elements should be parallel to the design of affordable housing.

The statistical information obtained from the UN Habitat shows that by the beginning of the third millennium, an estimated number of 1.1 billion people would live in inadequate housing conditions in urban areas alone. In many cities in developing countries, more than half of the population live in informal settlements, without security of tenure and in conditions that can be described as life- and health-threatening (United Nations Human Settlements Programme). In 2003, the Human Rights Commission of Malaysia criticised the Malaysian government for implementing low-cost housing schemes for the poor, but it failed to address issues related to habitability, suitability, defects and shoddy workmanship, lack of maintenance, and physical safety of occupants (Goh, 2011). In the United States, the cost and quality of one's housing are among the most important factors that influence quality of life (Rosie Tighe, 2010).

According to Chowdhury (1985), housing design is the most difficult task in the field of architecture. A proper understanding of human needs is of crucial importance in the formulation of houses and space standards (Chohan, 2011). Similarly, M. Lazenby (1977) suggested that architects, planners, and social scientists should work together in developing a framework for the provision of good housing design. These findings show the importance of improving the quality of affordable housing.

3. Methodoly

This research was conducted as a field survey that utilised primary data collection method, which was conducted in the form of a questionnaire survey. Two hundred respondents were interviewed to obtain their views and perceptions on the factors that influence the outcome of a home purchase. To gauge the needs and requirements of the respondents, the sample was distributed randomly to respondents who have purchased a home or are planning to buy a home in Klang Valley.

An assessment was conducted, wherein researchers asked the respondents on their views on a number of home selection criteria. Respondents were asked whether they agree, disagree, or are neutral in their responses via a Likert scale. According to Carr et al. (1996), a Likert scale can be used to measure the degree of consensus on the selection criteria (home variable space). These factors are assessed

based on a Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The data in this study were analysed using the Statistical Package for Social Sciences (SPSS) version 16.0 and Microsoft Excel. Descriptive analysis was used to determine the frequency and the total percentage. The Cronbach's alpha is a reliability test that requires a single test administration to provide a unique estimate of the reliability of a given test. The Cronbach's alpha is the average value of the reliability coefficients that could be obtained for all possible combinations of items when divided into two half-tests.

The Cronbach's alpha was used in this study to determine validity and reliability. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, the coefficient has no lower limit (Gliem and Gliem 2003). Cronbach's alpha value approaching 1.0 indicates good reliability and validity. A value of 0.8 is not an acceptable level of reliability for an error, whereas a value less than 0.6 is considered low. A high value for Cronbach's alpha indicates good internal consistency of the items in the scale; it does not mean that the scale is one-dimensional (Gliem and Gliem, 2003).

Table 1 shows the Cronbach's alpha for 6 items of home selection criteria. The Cronbach's alpha value of the 6 items of home selection criteria is 0.952, which shows that the Cronbach's alpha value is higher than 0.80. This finding also shows that the reliability of the questions about the home selection criteria are good.

Table 1. Reliability Values for Home Selection Criteria

Cronbach's Alpha	N of Items
0.952	8

4. Finding and Discussion

Discussions on home ownership have received a relatively good response from the respondents. A total of 200 respondents had responded to the questionnaires distributed in Klang Valley. Majority of the respondents involved in this questionnaire are are female. The percentage of female respondents are 84%, which indicate that there were 168 female respondents who responded to the questionnaires. The remainders of this percentage were male respondents or 16% of respondents. This composition shows that only 32 male respondents were involved in this questionnaire. The numbers of respondents were distributed according to gender. Figure 1 shows the percentages.
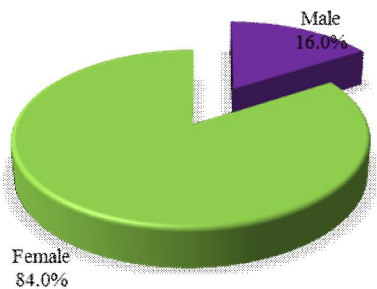
Figure 1. Distribution of the number of respondents according to gender

Study on type of accommodations of respondents was conducted using a questionnaire survey. Figure 2 shows the result and the distribution of the number of respondents according to the type of accommodation. Two hundred respondents were interviewed. The result shows that 95% of the respondents inhabit two- or three-storey houses with a terrace. This percentage shows that majority of the respondents were interviewed inhabit two- or three-storey houses with a terrace. This percentage also shows that this type of residence is the famous choice among respondents. This questionnaire was possibly inadvertently focused on two- or three-storey houses with a terrace. However, this finding did not affect the final result. The remaining 4.5% of respondents reside in a single-storey houses with a terrace. The smallest percentage shows that 0.5% of the respondents inhabited single-storey, semi-detached houses. This finding means that only 1 respondent inhabit a single-storey semi-detached house.
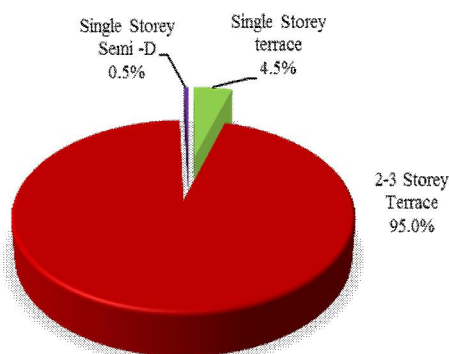

Figure 2. Distribution of respondents according to the type of recent accommodation.

Studying the residential status of the respondents was important to identify the perception of respondents in selecting their own house. The result shows that 190 or 95% of the respondents occupy two to three-storey houses with a terrace, whereas 178 or 89% purchased their house. Table 3 shows the habitat distribution of respondents

according to the types of dwelling and their residential status. Two types of status were asked in this study, that is, whether their residence is rented or purchased.

Table 2 shows that 8% of the respondents were renting their dwelling, whereas 92% of the respondents have purchased their home. Figure 3 shows the results. The survey focused on respondents who purchased their own house because the selection criteria in purchasing a house could be determined from their experience in purching their own house. The total percentage of respondents who purchased their home or are occupying a self-owned house was 89%, which is composed of respondents who purchased two to three storey houses with a terrace. About 2.5% of the respondents purchased a house with a terrace. The remaining 0.5% are occupying a single storey semi-detached house.

Given the total percentage of respondents who rented their house (8%), there were onlhousey 2% or 4 respondents who rent single-terrace houses. The remaining 6% of the respondents were renting two to three storey houses with a terrace, and none of the respondents rented a single storey semi-detached.

Table 2. Distribution of respondents according to the type of accommodation and residential status.

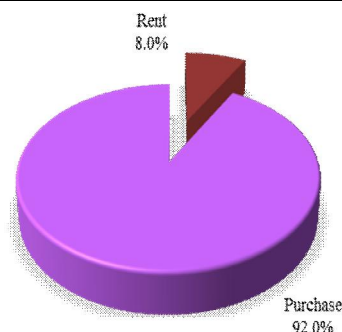| Type of Residential		Residential status		Total
		Rent	Purchase	
Single-storey Terrace	Nos	4	5	9
	%	2.0	2.5	4.5
Two to three-storey terrace	Nos	12	178	190
	%	6.0	89.0	95.0
Single-storey semi-detached	Nos	0	1	1
	%	0.0	0.5	0.5
Total	**Nos**	**16**	**184**	**200**
	%	**8.0**	**92.0**	**100.0**

Figure 3. Distribution of respondents according to current residential status

Table 3 shows the distribution of respondents based on their level of satisfaction on house prices. This research focuses on respondents who own their house. The finding shows that 184 respondents purchased a house, and 16 respondents are renting their house. Only 1.1% of the respondents are satisfied with the condition of the house they purchased, whereas 25% of the respondents were fairly satisfied. Majority of the respondents are dissatisfied with the condition of the house being purchased. The remaining 0.5% of the respondents did not respond to this question. This finding shows that majority of respondents are dissatisfied with the purchased housing price compared with the condition of their residence. This result also shows that housing price was expensive compare with the quality of their house or it does not meet their requirement. This questionnaire was administered to understand the housing needs of respondents.

Table 3. Distribution of respondents based on their level of satisfaction on house prices explained by examining the condition of their current residence.

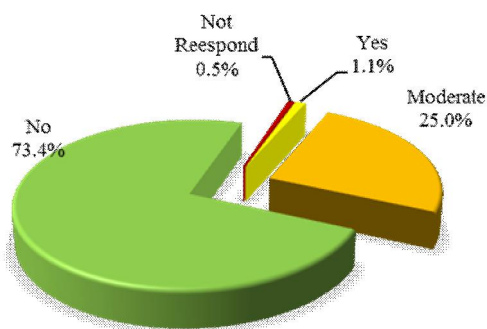| Satisfaction levels of house prices explained by examining the condition of their properties	Bil.	Percentage (%)
Yes	2	1.1
Moderate	46	25.0
No	135	73.4
Not Respond	1	0.5
TOTAL	**184**	**100.0**

Figure 4. Perception of respondents based on their level of satisfaction on house prices explained by examining the condition of their current properties

Weaknesses of Current Residence.
Respondents were asked about 8 aspects of the weaknesses of their current residence. Multiple dichotomy analysis is used to determine the main weaknesses of their house.

The finding shows the percentage of the weaknesses of their current house. The 8 weaknesses are:
i.   Inppropiate house's finishes
ii. Minimum ventilation
iii. Impractical interior design
iv. Lack of parking spots
v.   Small room size
vi. Lack of number of rooms
vii. Gross floor area is not commensurate to house price
viii. House located far from workplace

About 16.8% of the respondents chose "gross floor area is not commensurate to house price," which was closely followed by 'house located far from the workplace" at 14%, "impractical interior design" at 12.7%, and "lack of parking spots" at 12.3%. Figures 5 and 6 show the detailed distribution of respondents.

Studying the weakeness of the perception of respondents perception on their current houses is important to determine the criteria that should be considered in the provision of quality affordable housing.

Case Summary							
	Cases						
	Valid		Missing		Total		
	N	Percent	N	Percent	N	Percent	
$Weaknesses[a]	198	99%	2	1%	200	100%	
a. Dichotomy group tabulated at value 1.							

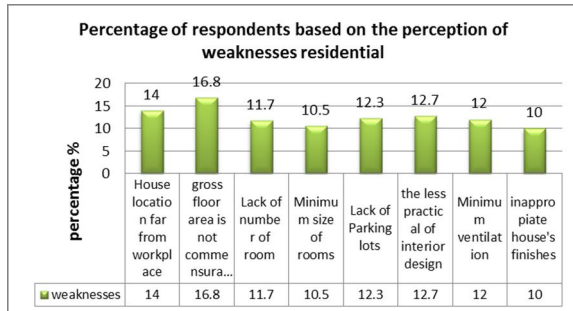| $Weaknesses Frequencies				
		Responses		Percent of Cases
		N	Percent	
The weaknesses of home[a]	G1A	112	14%	56.6%
	G1B	134	16.8%	67.7%
	G1C	93	11.7%	47%
	G1D	84	10.5%	42.4%
	G1E	98	12.3%	49.5%
	G1F	101	12.7%	51%
	G1G	96	12%	48.5%
	G1H	80	10%	40.4%
Total		798	100%	403%
a. Dichotomy group tabulated at value 1				

Figure 5. Distribution of respondents based on the perception of weaknesses of their residence.
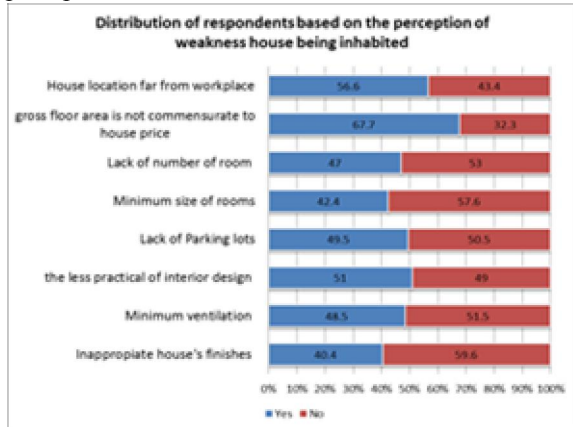

Figure 6. Distribution of respondents based on thire perception of the weakness of the house being inhabited.

Perception of Home Selection Criteria

The results show that the validity of the questions regarding home selection criteria is good

with Cronbach's alpha of 0.952. This questionnaire can be continued without the need to remove any item/question and is appropriate for distribution to respondents. Besides examining the weaknesess of the house inhabited by the respondents, this research also examines the respondent's perception of their home selection criteria. Most of the respondents strongly agreed (74%) that house price is the main criteria that should be considered when purchasing a house, and equal home criteria selection in final finishing. The results show that most respondents purchase houses within their affordability, but they also look at the ammenities. Second, respondents also consider the location of the house. Location refers to the distance of the house from the workplace. Finally minority of the respondents consider the area of the land.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Home safety	200	4	5	4.71	.455
Land area	200	4	5	4.71	.457
House design	200	4	5	4.72	.450
House price	200	3	5	4.73	.454
Final finishing (e.g., floors, walls, etc.)	200	4	5	4.74	.440
House location	200	4	5	4.73	.445
Valid N (listwise)	200				

Table 5. Respondents' perception on home selection criteria.

Home Selection Criteria		Strongly disagree	Do not agree	Neutral	agree	Strongly agree	Mean
Home safety		0	0	0	58	142	4.71
	%	0.0	0.0	0.0	29.0	71.0	
Land area	.	0	0	0	59	141	4.71
	%	0.0	0.0	0.0	29.5	70.5	
House design		0	0	0	56	144	4.72
	%	0.0	0.0	0.0	28.0	72.0	
House price		0	0	1	51	148	4.73
	%	0.0	0.0	0.5	25.5	74.0	
Final Finishes (e.g., floors, walls, etc.)		0	0	0	52	148	4.74
	%	0.0	0.0	0.0	26.0	74.0	
House location		0	0	0	54	146	4.73
	%	0.0	0.0	0.0	27.0	73.0	

5. Conclusion

This research examined the perception of respondents on the weaknesses and criteria of home selection. This research is important in understanding the needs and requirement in providing a comfortable

housing. The main weaknesses that respondents agreed on is "gross floor area small compared with house price," which means that current housing areas are mostly small but at a high prices. The weaknesses include the location of the house from the workplace,

the impractical interior design, and lack of parking area. Besides the weaknesses, this research also examined the home selection criteria taken into consideration when purchasing a house. The main criteria that respondent considered is house price, which shows that most of the respondents search for a house within their affodability.

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