Locational, Neighborhood, Structural and Socio-Cultural Attributes of Housing in Homeownership Decisions

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ABSTRACT

The sharp increase in house prices has brought government and housing developers to take close attention to the housing need of first-time homebuyers by supplying quality affordable housing to them through PR1MA housing scheme. The goal of this paper is to determine the right housing attributes required by potential first-time homebuyers which will ensure this affordable housing scheme gets off the right footing. A total of 300 questionnaires were distributed to potential first-time homebuyers in Klang Valley, Malaysia but only 265 questionnaires were returned. Results revealed that accessibility and guarded neighborhood influence homeownership preferences by first-time homebuyers. It also showed that first-time homebuyers were receptive to environmentally-sensitive homes. However, socio-cultural attributes of housing exert less influence on homeownership decisions.

Keywords: Housing Attributes, First-Time Homebuyers, Homeownership Preferences

INTRODUCTION

Sirmans, Macpherson, and Zietz (2005) defined home as the social unit formed by a family inhabiting together. For many individuals in the United States, homeownership is part of the “American Dream” (Broady, 2009). Similarly, homeownership has also becomes a major objective of every Malaysian (Tan, 2008). Malaysian’s government has even viewed homeownership as a vital part of social services to the nation since 1966 (Tan, 2008).

For a long time prior to the boom years of the 1990s, homeownership had been affordable for most of the population. But the increase in the cost of living together with escalating house prices has made it harder for Malaysian to buy a house, particularly

first-time homebuyers. The solution for this problem may be imminent as the government has recently introduced PR1MA (*Project Perumahan Rakyat 1Malaysia*) housing scheme to provide affordable quality homes to first-time homebuyers at the discounted price. PR1MA housing scheme will only focus on house prices priced between RM220, 000 and RM 300, 000 for first-time homebuyers with a household income of less than RM6, 000 per month. Under this program, the qualified buyers can apply for a loan of up to 105% from financial institutions with a 30-year payment scheme.

It is encouraging to note that the government is looking into providing more affordable housing to cater to homebuyers who are in need of housing but are not able to afford conventional homes at market rates. To ensure this noble measure gets off the right footing, it should be planned based on a long-term and holistic approach. While pricing the property affordably is the main objective of the affordable housing scheme, there should not be any compromise on the quality of these projects. It is also vital to ensure that these projects are accessible to good public transportation facilities and close to public amenities as the lower income group is most dependent on these amenities to improve their standard of living. Therefore, it is critical for housing developers to understand the first-time homebuyers' preferences before undertaking affordable housing development projects.

Homebuyers' preferences are continuously transforming and this is well demonstrated by the evolution of house styles in Malaysia from past till present. House styles such as terraced, detached, apartment and condominium are the evidence of continuing advancement to meet homebuyers' preferences. The evolution of house styles in Malaysia began with Malaysia's vernacular house, particularly the "suckling elephant house". This is a type of conventional Malay house and it is also commonly known as a regional style of village house (Bahauddin & Abdullah, 2008). The structure of this house is known by the shape of its roof whereby the formation of the main house is higher than the roof of the veranda (Wahab et al., 2005). Thus, the structure is viewed alike to a calf (baby elephant) being fed by its mother (Wahab, Kamal, Husin, & Zaidi, 2005). These houses are in fundamental nature with post and beam constructions elevated on stilts with gabled roofs, penetrable walls and flooring (Jayapalasingam, 2009). Now, many house styles are constructed such as detached, semi-detached, low-cost houses, low-cost flats and condominium (Tan, 2008).

The housing industry will continue evolving to suit the ever-changing homebuyers' preferences which create motivation for homebuyers to own their homes (Aarland & Nordvik, 2007). Conventionally, housing is mainly for the need of physical sheltering, however, as time passes, housing needs encompass broader setting (Foley, 1980). As pointed by Yam and Ismail (2008), housing developments in Malaysia has experienced significant transformation from 1985–2004, where the buyer preferences changed from basic shelter to quality living environment. Furthermore, Tan (2011) stated that when households purchase or rent a housing unit, they have other concerns toward the housing unit such as location, environmental amenities, proximity to the workplace, symbolic characteristics and investment.

LITERATURE REVIEW

Homeownership

According to Saunders (1990), individuals have natural preference towards homeownership. The decision to own a house might be affected by a desire to have a property of one's own, a desire for stability and pride of ownership, things that cannot be easily captured by age or income (Haurin, Parcel, & Haurin, 2002). Following psychologist Abraham Maslow's motivation theory, owning a house may satisfy more than wide-ranging households' needs. For example, a home offers basic protection from physical discomfort of harm (shelter). A home also can provide protection from unwanted social contact (privacy). As such, shelter and privacy form a 'physiological' and 'safety' dimensions of needs.

The benefits of home ownership to both owners and society can be found in many housing studies ranging from sociological to economical benefits. Haurin et al., (2002) proved that owning a house improves the home environment in which a child lives, improve child's cognitive ability and reduces behavior problems. Rohe, Van Zandt, and McCarthy (2001) and Tan (2009) both pointed out home owning increases households' self-esteem and life satisfaction because it can be viewed as a significant achievement of a household. Increased parental self-esteem has resulted in a greater emotional support for the households' children. Green and White (1997) also found that children of homeowners stay in school longer than children of renters. From an investment perspective, owning a house serves to create wealth in terms of capital appreciation and decreasing mortgage liabilities (Rohe et al., 2001).

Housing Attributes

Wang and Li (2006) argued that purchasing a house is a multi-elements effort, involving tenure options, housing types, neighborhood, location *etc*. As housing preferences will thereafter be determined a set of various attributes of the housing households will search for (Hurtubia, Gallay, & Bierlaire, 2010). Housing attributes have been shown in many literatures as major determinants of homeownership ranging from interior living spaces (Lindberg, Garling, & Montgomery, 1989; Cupchik, Ritterfeld, & Levin, 2003), exterior design and exterior space (Bhatti & Church, 2004) to neighborhood and locational indicators (Zabel & Kiel, 2000; Yusuf & Resosudarmo, 2009).

As far as the locational attribute of housing is concerned, distance to the workplace, schools, shopping centers and public transportation stations have been found to be a significant consideration for homeownership decisions. Tan (2011) and Kauko (2007) both mentioned that a desire location is an important factor that determines the success or failure of the residential housing project. Levine (1998) pointed that travel time may have an effect on homebuyers' preference, particularly for lower income groups. In general, homebuyers prefer a house that is convenient to their workplace (Tu & Goldfinch, 1996; Tan, 2011). Also, they prefer live in a place that could provide convenience to get to public amenities such as school, retailers and public transport.

When deciding the location for a house, distance to schools is particularly relevant for homebuyers with children (Clark, Deurloo, & Dieleman, 2006).

A number of research studies have been conducted on neighborhood attributes of housing ranging from neighborhood cleanliness (Zabel & Kiel, 2000) to neighborhood crime (Karim, 2008). As stated by Tan (2011), a house that is located in a good neighborhood is preferred as households are willing to pay extra for a house in the neighborhood with good environmental qualities in the neighborhood. Also, households are willing to pay more to live in a neighborhood with low crime rate and other security problems (Wang & Li, 2006). Tan (2011) noted that a good housing developer should take safety aspect of neighborhood into consideration in housing development project. This is to assure that households living in the neighborhood are safe, secure and their well beings are guaranteed. Tan (2011) further revealed that the gated-guarded neighborhood with landscape compound could raise housing property prices by 18.1%, indicating households will place preference on the gated-guarded neighborhood when it comes to the matter of living in a safe and secure condition.

As for structural attributes of housing, these attributes of housing have been brought up in many housing surveys as affecting households' home buying preferences (Opoku & Abdul-Muhmin, 2010). According to Clark and Onaka (1983), living space is a leading aspect within the household decision making process for house buying preferences. Clark et al. (2006) pointed that most of the households at all times make an effort to increase their existing size of housing lot as it symbolizes more luxury for the inhabitants. Hurtubia et al. (2010) revealed that the number of rooms or bathrooms in a house is an importance feature to be considered by households in making homeownership decisions particularly in western countries. In Saudi Arabia, private living spaces such as number of bedrooms, size of bedrooms and number of bathrooms are considered the key attribute of housing because private living space may be directly related to the issue of privacy (Opoku & Abdul-Muhmin, 2010).

Numerous of empirical studies have identified the relative importance of socio-cultural attributes of housing in house buying decisions (Jabareen, 2005). Sultan Sidi (2010) explained that these attributes can be seen mostly in the settlement pattern and house style, for instance, the Feng Shui system of the Asian society. Most households will mostly prefer houses that promote good Qi in Asian countries (Tse & Love, 2000; Wang & Li, 2006; Yong, 2006). For example, the direction that the house faces, which affects sunlight penetration and air ventilation is one of the key considerations among households in Guangzhou, China when buying a house. In general, south-facing houses are preferable as these houses will not hit directly by the afternoon sun. The house address number is another important factor affecting households' housing preferences. For instance, house address numbering ending with the number 4 such as 4, 14 and 24 or other number such as 13 is usually regarded as bad luck, whereas house address numbering ending with the number 8 such as 8, 18 and 28 symbolize wealth and fortune (Yong, 2006).

Based on previous empirical studies, there has been an interesting debate about the relative importance of these factors in homeownership decisions. Therefore, this paper intends to contribute to literature by developing an understanding on which housing attributes, as defined by locational, neighborhood, structural and socio-cultural attributes contribute required by potential first-time homebuyers to own a house in the Malaysian context.

METHODOLOGY

The population for this study is defined as all potential first-time homeowners in Klang Valley. To represent this population, a sample of 300 households from Klang Valley, particularly Kuala Lumpur and Subang Jaya districts were chosen. According to Ministry of Information, Communications and Culture (2010), the population of these two districts (about 2.3 million) contributes 40% of the whole population in Klang Valley. Another rationale to base this study on these two districts is that these particular areas are experiencing immense expansion of the economy and has attracted settlers from every part of the country (Saw, 2007).

Survey

A self-administered questionnaire was constructed using 5-point Likert-Scale. For validation purposes, a pilot testing was conducted with the preliminary developed questionnaire. After conducting pilot testing, suggestions and feedback from respondents were taken into consideration to make appropriate changes on the questionnaire in order to ease respondents' understanding and interpretation of each question. In this study, 300 sets of questionnaire were distributed between the periods of December 2010 to January 2011 among potential first-time homebuyers in Klang Valley. Of 300 questionnaires distributed, only 265 questionnaires were coded into SPSS for further analysis.

Variables Used in this Study

The survey instrument of home owning was adapted from Likert-scale measures contained in Tan (2008). The construct of home owning was an index or highly correlated item rather than a single-item question; therefore, the construction of the composite indices of home owning priorities was obtained from factor analysis. Based on factor analysis results, the unidimensional measure of homeownership preferences (H) comprised of 5 questions (Cronbach's alpha 0.954): "home owning increases households' self-esteem", "home owning gives a feeling of achievement", "home owning creates wealth", "home owning improve the home environment in which a child lives" and "home owning increases households' self-satisfaction" with factor loadings of 0.725, 0.812, 0.741, 0.725 and 0.806 respectively.

The measure of housing attributes, as defined by locational, neighborhood, structural and socio-cultural housing attributes was measured in a dichotomous code. Five locational housing attributes were considered in this study: distance to the workplace

(Workplace), to shops (Retail), to schools (School), to recreational facilities (Recreational) and to public transportation centers (Transport). Neighborhood attributes included in the study were the level of neighborhood crime rate (Crime), neighborhood cleanliness (Cleanliness) and guarded neighborhood (Guarded). The number of bedrooms (Bedroom), bathroom (Bathroom), size of living area (Living), size of kitchen area (Kitchen), built-up area (Build-up) and environmentally-sensitive home (Eco) were included to indicate structural attributes of the housing. Last, two socio-cultural housing attributes included in this study, namely house number (Number), and house orientation (Orientation). Table 1 shows a summary of exploratory variables used in this study.

Table 1: Definition of Exploratory Variables in the Study

Variables	Definition
Locational Attributes of Housing	
Retail	1 if the traveling distance to retailing outlets is a main consideration when buying a house, 0 otherwise
School	1 if the traveling distance to the school is a main consideration when buying a house, 0 otherwise
Transport	1 if the traveling distance to the public transportation station is a main consideration when buying a house, 0 otherwise
Workplace	1 if the traveling distance to the workplace is a main consideration when buying a house, 0 otherwise
Recreation	1 if the traveling distance to recreational parks is a main consideration when buying a house, 0 otherwise
Neighborhood Attributes of Housing	
Crime	1 if the level of crime in the neighborhood is a main consideration when buying a house, 0 otherwise
Cleanliness	1 if the cleanliness of the neighborhood is a main consideration when buying a house, 0 otherwise
Guarded	1 if the guarded neighborhood is a main consideration when buying a house, 0 otherwise
Structural Attributes of Housing	
Bathroom	1 if the number of bathrooms is a main consideration when buying a house, 0 otherwise
Bedroom	1 if the number of bedrooms is a main consideration when buying a house, 0 otherwise
Living	1 if the size of the living area is a main consideration when buying a house, 0 otherwise
Kitchen	1 if the size of the kitchen area is a main consideration when buying a house, 0 otherwise
Eco	1 if an environmentally-sensitive home is a main consideration when buying a house, 0 otherwise
Built-up	1 if the built-up area of the house is a main consideration when buying a house, 0 otherwise
Social Cultural Attributes of Housing	
Orientation	1 if the house direction is a main consideration when buying a house, 0

	otherwise
Number	1 if the house address number is a main consideration when buying a house, 0 otherwise

For regression analysis, this study used the equation below:

$$H_i = \beta_0 + \beta_l L_i + \beta_n N_i + \beta_s S_i + \beta_{sc} SC_i + \varepsilon_i$$

where β_l is the coefficient vector for the locational attributes (*L*) which measure the locational effect on homeownership *(H)*, while β_n, β_s and β_{sc} are neighborhood (*N*), structural (*S*) and social-cultural (*SC*) coefficient vectors, respectively, reflecting the neighborhood, structural and social- cultural effects on homeownership. ε is the stochastic disturbance vector.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 showed the profile of the respondents. There were more female respondents (61.9%) than male respondents in the study. Also, most of respondents were single (58.9%). In terms of age, 52% of the respondents were between 25 – 34 years of age, followed by 24.5% and 18.9% in the under 25 and 35 – 44 age range, respectively. Only 4.1% in the age range of 45 and above. The educational level of most respondents was undergraduate degree (46.8%). As for monthly income, 48.7% of the respondents earned between RM 2, 000 and RM 3,999, 20.8% earned less than RM 2,000, 24.5% earned RM 4, 000 and RM 5, 999, respectively and 6% earned RM 6, 000 and above.

Table 2: Summary of Demographic Profile of Respondents

		Total Respondents	Percentage (%)
Gender	Male	101	38.1
	Female	164	61.9
Age	Under 25	65	24.5
	25 – 34	139	52.5
	35 – 44	50	18.9
	45 above	11	4.1
Marital Status	Single	156	58.9
	Married	109	41.1
Education	Secondary	61	23
	Undergraduate	124	46.8
	Postgraduate	79	29.8
	Other	1	0.4
Monthly Income	Under RM 2, 000	55	20.8

	RM 2, 000 – RM 3, 999	129	48.7
	RM 4, 000 – RM 5, 999	65	24.5
	Above RM 6, 000	16	6

Regression Analysis

As shown in table 3, the equation explained about 52 of variation in homeownership preferences. The estimation results revealed that distance to retailing outlets was significantly and negatively related to homeownership, holding all other things constant. In this survey, first-time homebuyers preferred not to own the house which was near retailing outlets (29.2% less preferable). A study by Hurtubia et al. (2010) acknowledged that proximity to retail centers may be least preferred by homebuyer owing to the fact that overcrowding and noise pollution may occur. Similarly, Tse and Love (2000) showed that proximity to retailing outlets does not contribute to any positive impact on the house price.

Respondents in the survey preferred to own a house which was closer to public infrastructures. It is because living near to public infrastructures may give convenience for traveling purpose such as travel to work and public transports as shown by Australian Bureau of Statistics (2009). The results showed that the distance to the workplace and public transportation station both were significantly and positively associated with home owning consideration. In this survey, 53.7% and 28.4% higher possibilities of home buying were observed for the houses that are not far away from the workplace and public transport station, respectively. As highlighted by Tan (2011), a long distance to the workplace and public transport station means incurring more travelling time and cost which may affect homeownership preferences. The study by Wu (2007) also presented similar results which demonstrated that homebuyers place more importance on public infrastructures than other housing attributes when considering a house.

However, the distance to the school was insignificantly related to homeownership decisions. It appeared that respondents in the survey have excluded this variable in determining home choice. This finding is not consistent with previous study by Clark et al., (2006) who addressed that distance to schools is principally relevant to homeownership. They further explained that this preference will be more relevant if households have children in house. The Study by Shi (2005) also revealed similar results which demonstrated that households with children place more importance on distance to schools (80.2%) and households without children place lesser importance on distance to schools (43.5%) in their homeownership preferences. Similarly, the distance to recreation parks was not significantly related to the likelihood of home owning. Generally, the environmental qualities are what homebuyers would consider before buying a house, and such elements are reflected in the property prices. Good environmental qualities carry significance property values. Most of housing studies focused on either the distance to recreation parks or the proportion of open space in the neighborhood to measure their environmental qualities (Bolitzer & Netusil, 2000;

Poudyal et al., 2009; Tan, 2011) In this study, it appeared that proximity to parks exerts less influence on the homeownership decision.

It seems that snatch thefts and rampant break-ins in Klang Valley's urban area make first-time homebuyers a little more concerned about their personal security. The estimation result showed that the guarded neighborhood was the preferred choice (36.1% more preferable) by first-time homebuyers. Generally, these results were comparable to finding obtained in Tan (2011). However, the cleanliness in the neighborhood was not a highly significant factor for first-time homebuyers to own their homes. As for the effects of crime neighborhood, the sign was expected but the relationship was not statistically significant. This finding is not consistent with previous study by Wang and Li (2006) who stated that households will place concern on crime and other security problems in the neighborhood when making the decision for homeownership.

Of structural housing attributes, the number of bedroom (30.5% more preferable) was significantly related to home owning. This finding is consistent with a number of previous studies, for instance, Hurtubia et al. (2010) revealed that the number of rooms in a house is an importance feature to be considered by homebuyers in the homeownership decision making process. Hurtubia et al. also (2010) stated that households comprising of one to three persons typically prefer a small number of spacious rooms and on the other hand, larger families will rather opt for large number of rooms, so that each resident has its own personal space. Similar to the findings of Opoku and Abdul-Muhmin (2010), private living space such as the number of bedroom may appear to be an important structural attributes to be considered by first-time homebuyers in making home owning decisions. It could also be seen that the house of environmentally-sensitive living features was 62.6% more preferable than the normal house as eco-friendly homes could reduce greenhouse gas emissions by using renewable or durable local resources for construction. In terms of the number of bathrooms, size of the living room, the built-up area and the kitchen area, the results showed that there were insignificant relationships in homeownership preferences. It is reasonable to believe that most of the houses in Malaysia were built with appropriate allocation of the built-up area and the number of bathrooms which may fit the respondents' preference in this study; thus, most structural attributes of housing may not be the importance attributes for housing when making decisions for homeownership.

In theory, homebuyers preferred houses that have good Feng Shui. It seems that a house facing in a preferable direction and a preferable house address number might not affect the decision of home owning, holding factors constant. It appeared that social cultural attributes of housing exerted less influence on homeownership considerations by first-time homebuyers in Klang Valley. This finding is not in line with the study by Yong (2006) who pointed that house address number is an important factor on homebuyers' preferences towards homeownership preferences. As noted earlier, homebuyers prefer to own a house which house address number ending with the number 8 such as 8, 18 and 28 or ending with the number 9 such as 9, 19 and 29 because these numbers symbolize wealth and carry good fortune to them (Yong, 2006).

Also, respondents in the survey might not consider the “Feng Shui” of a house such as the direction that the house faces.

Table 3: Effects of Housing Attributes on Homeownership

	B	Std. Error	Impact	VIF
Constant	2.342	.186		
Retail	-.345*	.072	-.292	1.086
School	.111	.070	.117	1.063
Transport	.250*	.114	.284	1.225
Workplace	.430*	.132	.537	1.643
Recreation	.063	.041	.065	2.653
Crime	.127	.090	.135	1.117
Cleanliness	.168	.113	.183	2.340
Guarded	.308*	.118	.361	1.190
Bathroom	-.223	.145	-.200	1.608
Bedroom	.266*	.114	.305	1.647
Living	.099	.116	.104	1.613
Kitchen	-.067	.077	-.065	1.151
Eco	.486*	.106	.626	2.364
Built-up	.109	.162	.115	1.614
Number	.041	.074	.042	1.190
Orientation	.044	.079	.045	1.351
R^2	.515			
Std error	.523			
F stat	16.434			
Sig	.000			

** Significance at 0.05*

CONCLUSIONS

Meeting first-time homebuyers’ homeownership preferences is an important objective to many developers and government. Therefore, it is critical for housing developers to understand the homebuyers’ preferences that will encourage them to buy a house before undertaking housing development projects (Tan, 2012).

To determine whether housing attributes matter, this paper includes several attributes of housing. These include locational, neighborhood, structural and socio-cultural attributes of housing. In this survey, first-time homebuyers prefer to own a house which is closer to retail centers, workplace and public infrastructures. Besides that, they prefer to own a house that is located in the guarded neighborhood. Moreover, homebuyers prefer to own a green home that provides adequate number of rooms. However, socio-cultural attributes of housing are not preferred by first-time homebuyers.

In order to supply affordable housing under PR1MA effectively and efficiently, there is a need for the government and housing developers to build houses in the targeted areas that will include infrastructure and amenities. Quality affordable housing should be built and equipped with proper amenities as first-time homebuyers find it more cost-effective to live in a well-connected neighborhood, with easy access to daily facilities.

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