

The Link between Homeownership Motivation and Housing Satisfaction

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ABSTRACT

It is reasonable to believe that the degree of housing satisfaction may depend on the motivation of home owning as motivation has been an important reason in the explanation of homeownership. There is little empirical evidence demonstrating how homeownership motivation, as defined by local amenities investment, social capital investment, residential stability, and financial benefits of home owning affect housing satisfaction in the Malaysian context. In this paper, Structural Equation Modeling (SEM) was used to examine the link between homeownership motivation and housing satisfaction. Results showed that social capital investment and residential stability of homeownership appears to be important determinants of housing satisfaction. The findings also indicated that interdependencies among homeownership motivation variables were important extensions of the housing satisfaction model because they help improve the ability of model to predict housing satisfaction.

Keywords: Homeownership, motivation, housing satisfaction, Structural Equation Modeling (SEM)

INTRODUCTION

Homeownership has long been a major goal of national housing policy in Malaysia; therefore, housing policies and programs are formulated to increase the homeownership rate in the country. However, this desirable goal is still difficult to achieve for some families in Malaysia despite efforts by the government. There are two challenges relating to the housing delivery system in Malaysia. On one hand, there is a mismatch of housing supply and demand for the poor as the completed low-cost houses fall below the targeted level. On the other hand, there is a high amount of unsold properties, and these unsold houses do not attract the target market nor

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cater to the housing needs of the targeted house buyers. The efficiency of the housing delivery system depends on how effective public and private housing builders are in regulating their housing activities to suit households' needs and wants.

In order to achieve sustainability in the housing delivery system, it is important to know what the market really wants by examining factors which account for satisfaction or dissatisfaction among households, and a model which may explain housing satisfaction. House builders should understand a detailed knowledge of the motivation of homeownership in order to increase housing satisfaction among households in Malaysia.

Housing satisfaction is recognized as an important component of home owners' general quality of life (Adam, 1984). The degree to which home owners' needs and aspirations are matched by their housing conditions is a concern for housing developers. Measures of housing satisfaction provide necessary information to evaluate the performance of the current and future housing development projects (Preiser, 1989; Natham, 1995). Thus, the result of this study would assist housing developers in understanding and predicting the overall satisfaction of their housing projects.

Previous housing studies have focused on the relationship between homeownership and housing satisfaction. Majority of these studies showed that homeowners generally are satisfied with their housing situations. However, these studies do not explain to what extent homeownership affects housing satisfaction. It is reasonable to believe that the extent of housing satisfaction may depend on what motivates a household to own a house. There is little empirical evidence to demonstrate the link between homeownership motivation and housing satisfaction in Malaysian context. Therefore, this paper intends to fill the gap that currently exists in housing satisfaction literature by developing an understanding on which homeownership motivation may contribute to overall satisfaction of households in a developing country.

LITERATURE REVIEW

Housing Satisfaction

Housing evaluation is relevant to housing developers as it provides the necessary information to improve the development of housing projects (Preiser, 1989). In order to evaluate the performance of housing, a suitable indicator has to be developed. Amongst the various indicators developed, the concept of satisfaction has become the most commonly used to evaluate the performance of housing (Adriaanse, 2007; Kellekc and Berkoz, 2006; Paris and Kangari, 2005).

Increasing interest is shown towards the study of how households think of their housing and how it affects their lives. As defined by Ogu (2002), housing satisfaction refers to the degree of contentment experienced by a household with

reference to the current housing situation, and it is a non-economic and normative quality evaluation approach to assess the quality of the housing units and services. There are various approaches to conceptualize housing satisfaction. One common approach is the aspiration-gap approach. Under this approach, households make their judgments on housing and neighborhood conditions according to their needs and aspirations (Galster, 1987). Satisfaction with their housing and neighborhood conditions indicates a high degree of congruence between actual and desired situations. An incongruity between housing needs and aspirations, on the other hand, may lead to dissatisfaction. The incongruence may be due to the difference in life-cycle pattern of housing consumption in terms of space requirements (Lu, 1999).

Additionally, households judge their housing conditions based on the actual housing situation and housing norms. Households are likely to express a high level of satisfaction with housing and neighborhood if the households' current housing situation meets the norms. On the other hand, incongruence between housing needs and norms may result in a housing deficit, which in turn gives rise to housing dissatisfaction (Morris and Winter, 1975). In order to reconcile the incongruity, households may consider some form of housing adjustment, such as revising their housing needs and aspirations, renovating their housing conditions, or moving to another place (Lu, 1998; Gibson, 2007).

Homeownership

Homeownership appears to be a significant determinant of housing satisfaction. Many studies revealed that housing satisfaction is much higher among homeowners compared to renters (Rossi and Weber, 1996; Rohe and Basolo, 1997; Lu, 2002; Vera-Toscana and Alteca-Amestoy, 2008). Similarly, Elsinga and Hockstra (2005) reported that homeowners are more satisfied than tenants with their housing situations in seven out of eight European countries. Barcus (2004) also found that tenure shift from renters to owners is the only significant variable in predicting housing satisfaction of urban-rural migrants in the United States. The most likely explanation for this is that homeownership gives homeowners a greater sense of control over their housing units. For example, they have more control over who enters their units, and renovate their units they wanted (Kaitilla, 1993; Lu, 2002). Homeownership also provides a feeling a security and personal identity, and therefore higher self-esteem (Rohe and Stegman, 1994). Housing can act as means of establishing and communicating social status and this, in turn, impacts self-esteem. Homeownership may then have a feeling of achievement (Rohe *et al.*, 2001).

Homeownership Motivation

There is much evidence that motivation has been an important reason in the explanation of homeownership. Psychologist Abraham Maslow generalized a

very useful theory of basic human motivation. Owning a house may satisfy more wide-ranging households' needs. For example, a home offers basic protection from physical discomfort or 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. Additionally, most households want them located conveniently in relation to place of employment, schools, shops, recreational facilities, and transportation (location). They may also place priority on the characteristics of the surrounding area, such as the appearance of the neighborhood, the quality and cost of public facilities, social environment, absence of noise and pollution, and any prestige attached to the area (amenities) (Tan, 2011). In this aspect, location and amenities combine into a 'social', 'esteem', and 'self-actualization' dimensions of needs.

In this study, the expectancy theory of motivation is used to examine how and why homeowners are motivated. The expectancy theory emphasizes the importance of the link between behavior and performance. Individuals choose how to behave from among alternative course of action, based on their expectation of what there is to gain from each action. In this case, individuals are motivated to own a house when they see a favorable combination of what is important to them and what they expect as a reward for their efforts, and they behave accordingly. An individual's behavior will depend, to some extent, on the types of expected rewards of becoming homeowners.

Homeownership Motivation: Local Amenities and Social Capital Investment

Households are motivated to be homeowners because homeownership is often thought to promote stability in the neighborhood. One way to promote stability in the neighborhood is to invest in local amenities and social capital investments. Rossi and Weber (1996) and DiPasquale and Glaeser (1999) showed that homeowners are believed to be more likely to participate in local neighborhood organizations, and to associate informally with their neighbors. The main reason of participation in local improvement organizations is to ward off outside threats by both public and private entities and inside threats such as poor property maintenance by homeowners (Rohe and Steward, 1996; Tan, 2008). Furthermore, homeowners generally have a larger financial state in their communities as their wealth ties up in their homes and communities (Green and White, 1997; Tan, 2010). As a result, they are often more involved in their communities as compare to renters (Harkness and Newman, 2003; Lien *et al.*, 2008; Tan, 2008). Homeowners differ from renters in terms of political behavior as they have a greater chance of being interested in public affairs, are member of group to solve local problem, serve as a committee member and officer of local improvement group, give money to local improvement group, attend meeting of local improvement group, and are more likely to have lobbied a

local, state or federal official (Rossi and Weber, 1996; Haurin *et al.*, 2002; Harness and Newman, 2003). There is little studies in literature that examine the effect of local amenities investment on housing satisfaction, the argument seems to be that increased local amenities investment in the neighborhood may lead to higher satisfaction among homeowners. Homeowners will benefit both economically and socially if the attachment to local improvement organizations is successful and productive as these organizations will perform their duties to solve the problems of negative externalities on their housing and neighborhood conditions. Therefore, it could be hypothesized as follow:

H1: An increase in local amenities investment will contribute to higher housing satisfaction among homeowners

As defined by Bolin *et al.*, (2003), social capital consists of all the networks, norms, structures and institutions which facilitate social interaction. Homeowners invest in social capital by interacting and maintaining link with their neighbors. The returns on this investment can be obtained either directly or indirectly. Social ties with neighbors living nearby may mitigate neighborhood instability and promote neighborhood cohesion by encouraging individuals to stay as they can derive financial and emotional supports from its social networks (Kan, 2007). Additionally, moderate neighborhood organization attachment and frequent interaction with neighbors are found to be associated with positive health outcomes of households (Carpiano, 2007; Poortinga *et al.* 2008). As investment in social capital grows, it is possible that children raised in owned homes do better in school and are less likely to be involved in social problems (Aaronson, 2000; Harness and Newman, 2003). Evidence about the relationship between social capital investment and housing satisfaction is less extensive in Malaysian context. Therefore, it could be hypothesized that homeowners evaluate their housing situation based on social interaction with others.

H2: An increase in social capital investment will contribute to higher housing satisfaction among homeowners

Homeownership Motivation: Residential Stability

Another motivation to own a house is that homeowners prefer to remain in the neighborhood longer. Rohe and Steward (1996) showed that, holding all the other factors constant, there is a positive relationship between homeownership and the length of tenure. This study suggested that households normally own their house units only if they are committed to remaining in the neighborhood for a long time. It is due to the fact that transaction costs associated with buying and selling houses are relatively high. These costs include legal fees, stamp duty and mortgage processing fees, as well as hidden costs such as the time it takes to find the right house. As

residential stability improves, it is possible that children outcomes will improve (Haurin *et al.*, 2002; Lien *et al.*, 2008). Lien *et al.* (2008) further supported that residential stability reduces the effort necessary for children to adapt to the new social network. Greater stability of households will develop greater social capital in their communities and eliminate the need to change schools. Residential stability may be shown to have a positive association with housing satisfaction. The longer the individuals stay the more satisfied they become. One possible explanation is that through the passage of time individuals are adapted to the living conditions of their housing environment (Amole, 2009; Mohit *et al.*, 2009). Given the reduced mobility that individuals possessed, it is reasonable to believe that the length of tenure is a predictor of housing satisfaction.

H3: An increase in residential stability will contribute to higher housing satisfaction among homeowners

Homeownership Motivation: Financial Benefits of Home Owning

Individuals are more likely to own their house units because they can obtain potential financial benefits of homeownership. It has become important to consider ownership of a home as an investment for which the home owners will receive an attractive and positive financial return (Tan, 2008). The financial return from residential housing takes the form of income and capital growth. The income may be the actual income through rental payments from tenants. The capital growth is achieved through inflationary gains or through increased price of the property as a result of higher demand. Several housing studies have examined the risk and return of residential property investment. Goetzmann (1993) found that the capital appreciation of property is higher than the total return to bonds, but less that of stock. Flavin and Yamashita (2002) revealed that the owner-occupied housing return and the standard deviation are lower than those of shares. Hutchison (1994) added to the literature that the return from housing exceeds the rise in the retail price index, but falls below the return from shares. Similarly, Masron and Fereidouni (2010) supported the fact that housing can be an effective asset for investment as it has a lower risk-to-reward ratio as compared to stock, gold coin and US dollar. In addition to the capital and income growth, owning a house is proved to be an investment instrument to hedge against inflation (Fama and Schewert, 1977; Rubens *et al.*, 1989; Bond and Seiler, 1998; Goetzmann and Spiegel, 2000). An early study on housing inflation hedging ability was conducted by Fama and Schwert (1977). They concluded that the expected responses of asset return to inflation for government securities and residential property are consistent with the Fisher hypothesis, and the residential property is the only complete hedge against expected and unexpected inflation. Rubens *et al.* (1989) also tested the inflation-hedging effectiveness of residential property, farmland and business property as well as corporate and government

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bonds and common stock. They found that only residential property is a complete hedge against actual inflation shocks. They also found that by incorporating residential property in portfolios of assets, the risk per unit return is lowered and inflation hedging is improved. The effect of the housing return might be expected to influence housing satisfaction. Although there is little empirical evidence to support the claim that financial benefits of homeownership has positive effects on housing satisfaction, it is reasonable to believe that housing satisfaction might be expected to rise with higher housing returns in Malaysian context.

H4: An increase in financial benefit of home owning will contribute to higher housing satisfaction among homeowners

It is also reasonable to believe that housing satisfaction is not a function of parallel or independent sets of home owning motivation variables, but of a rather complex set of interdependencies of home owning motivation variables. As a result, the interrelationships between latent exogenous variables (homeownership motivation) will be explored in Malaysian context.

H5: Social capital investment of homeownership is positively related to financial benefit of homeownership

H6: Social capital investment of homeownership is positively related to local amenities investment of homeownership

H7: Social capital investment of homeownership is positively related to residential stability of homeownership

H8: Financial benefit of homeownership is positively related to local amenities investment of homeownership

H9: Financial benefit of homeownership is positively related to residential stability of homeownership

H10: Local amenities investment of homeownership is positively related to residential stability of homeownership

METHODOLOGY

The Respondent

The respondents, who are eligible to participate in the survey, are households in Klang Valley, Malaysia. In this study, the list of households was obtained from one of the leading real estate agency. The Klang Valley was selected in this study because the total number of households accounted for 31% of overall households in the country (Department of Statistics Malaysia, 2000). To ensure sufficient variations

in responses, data were collected directly from respondents through mail survey or e-mail using stratified random sampling. The stratification criteria were (1) the household head from Cheras and KL city in Kuala Lumpur and Subang Jaya and Petaling Jaya in Selangor, and (2) the house type (high rise, terrace, semi-detached and detached). Of 2,000 distributed survey forms, only 250 forms were received and used for this study.

Questions Used in the Survey

The survey instrument was based on prior literature with homeownership motivation measures, as defined by local amenities investment, social capital investment, financial benefits and residential stability (Tan, 2008). Local amenities investment was measured using 4 items, and social capital investment was measured using 7 items. As for financial benefits and residential stability, 6 items and 3 items were used respectively. In addition, 3 measures of housing satisfaction was adapted from measures contained in Francescato *et al* (1989), Lu (1999), Adriannese (2007) and Amole (2009). In this survey, responses were recorded on a five-point scale.

RESULTS AND DISCUSSION

Descriptive Statistics

A descriptive statistics was performed to know the general socio-demographic characteristics of respondents in this survey. Of the total respondents, most of them were married household heads (72 percent). As shown in Table 1, 52 percent of the respondents were female. The majority of the respondents were Chinese (47.6 percent) as they commonly reside in the targeted areas in this study. Households with primary education level comprised only 1.2 percent of the sample, while 25.2%, 54% and 19.6% received secondary, college and postgraduate education respectively. The age group of the respondents in the survey was fairly distributed. Table 1 also indicated that the monthly income of the households head was in the range from RM 4000 to RM 8000 (36.4 percent), then followed by the range of RM 2500 to RM 4000 (28.8 percent). As for the monthly housing expenditures, 46% of the respondents spent between RM 1000 to RM 2500, followed by less than RM 1000 (34.8 percent). In terms of types of present residence, 67.6 percent of the respondents were currently lived in a terraced house, 7.6 percent in a high rise apartment or a condominium, 17.2 percent in a semi-detached house and 7.6 percent in a detached house. Table 1 showed the profile of respondents in the survey.

Inferential Statistics

A series of statistical techniques were performed to examine the link between homeownership motivation and housing satisfaction, i.e. reliability analysis,

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Table 1 Profile of the respondents

	Frequency	%
Gender		
male	120	48.00
female	130	52.00
Race		
Malay	63	25.20
Chinese	119	47.60
Indian	56	22.40
Others	12	4.80
Marital status		
single	70	28.00
married	180	72.00
Age of the respondents		
< 30	60	24.00
30 – 40	70	28.00
40 – 50	70	28.00
> 50	50	20.00
Education background		
Primary	3	1.20
Secondary	63	25.20
Tertiary	135	54.00
Others	49	19.60
Monthly household income (RM)		
< 2500	56	22.40
2500 – 4000	72	28.80
4000 – 8000	91	36.40
> 8000	31	12.40
Types of your present residence		
high rise	19	7.60
terrace	169	67.60
semi-detached	43	17.20
detached	19	7.60
Monthly housing expenditures (RM)		
< 1000	87	34.80
1000 - 2500	115	46.00
2500 - 4000	44	17.60
> 4000	4	1.60

exploratory factor analysis, confirmatory factor analysis and structural equation modelling. First, exploratory factor analysis and reliability analysis via Cronbach's alpha were used to measure constructs with multiple indicator variables as well as the internal consistency of variables in the study. Second, confirmatory factor

analysis (CFA), also known as measurement model, was conducted to assign variables to manifest a construct. This strength of manifestation was measured by factor loadings in the complex factor structures. Once the constructs were identified, H1 through H10 were tested through structural equation modeling, using maximum likelihood estimation with covariance matrix as the input. In order to have a good model fit, the chi-square normalized by degree of freedom should not exceed 3, goodness of fit (GFI) should exceed 0.9, non-normed fit index (NNFI) should exceed 0.8, comparative fit index (CFI) should exceed 0.9, and root mean square error (RMSEA) should not exceed 0.08. Details of each analysis follow.

Exploratory Factor Analysis (EFA)

EFA is a data reduction technique which aggregates variables into sets of manageable factors or dimensions. In short the objective of EFA is to examine “possible relationships in only the most general form and then allows the multivariate technique to estimate relationships” (Hair et al, 1998). When conducting EFA, principal component analysis with varimax rotation was performed to examine whether all variables relating to housing satisfaction and homeownership motivation variables can be grouped into a small number of factors. Questionnaire questions with factor loading less than 0.40 were to be deleted from the set. As a result, all variables were retained for further analysis. After performing exploratory factor analysis, 23 survey items have sorted into 5 factors. In line with the finding of Tan (2008), homeownership motivation was composed 4 factors: Factor 1, which referred to as social capital investment, has 7 items ($\alpha = 0.876$); Factor 2, which referred to as financial benefits, consisted of 6 items ($\alpha = 0.864$); Factor 3 comprised 4 survey items regarding local amenities investment ($\alpha = 0.877$); and Factor 4, which was defined as residential stability, consisted of 3 items ($\alpha = 0.785$). Lastly, the housing satisfaction factor consisted of 3 items ($\alpha = 0.885$). In addition, exploratory factor analysis for each scale revealed that each construct is unidimensional with the scree plots indicating one dominating factor for each scale.

Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is conducted to assign variables to manifest a construct, where the manifestation is the highest (Hair et al., 2006). This strength of manifestation is measured by factor loadings in the complex factor structures. When variables are assigned or confirmed, these variables become a linear combination of their respective factors. In order to fully assess the reliability and validity of the model, the measurement model was assessed via confirmatory factor analysis. The indicators were then confirmed to manifest a specific construct, where the factor loadings were the highest. Therefore indicators did not show a unique manifestation

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of a single factor were then omitted from further analysis. As a result, 3 indicators of social capital investment construct, 1 indicator of financial benefit construct and 1 items of housing satisfaction construct were dropped from further analysis respectively (see Table 2).

Table 2 CR and VE results on the Indicators retained after CFA

Label	Construct	Loadings	VE	CR
	Social Capital Investment (SC)		0.568	0.835
S2	I socialize with my neighbors	0.617		
S4	My neighbors are friendly	0.928		
S5	My neighbors are helpful	0.841		
S7	My neighbors look after my property when I am away	0.569		
	Local Amenities Investment (LA)		0.644	0.877
L1	I have participated in the local community projects	0.708		
L2	I am a member of residential association	0.731		
L3	I contribute time and efforts to improve my neighborhood	0.812		
L4	I involve in local improvement groups in my neighborhood	0.938		
	Residential Stability (ST)		0.513	0.751
T1	I stay in the neighborhood longer due to my neighbors	0.810		
T2	I stay in the neighborhood longer due to amenities	0.806		
T3	I stay in the neighborhood longer due to high relocation cost	0.483		
	Financial Benefits (FB)		0.533	0.848
V2	Property has the potential for income gains	0.829		
V3	Property has the potential for capital gains	0.832		
V4	Property is a good investment to hedge against inflation	0.752		
V5	Property is a good investment for retirement	0.675		
V6	Property is a good investment for children education	0.515		
	Housing Satisfaction (L)		0.582	0.713
H2	I am satisfied with my dwelling	0.467		
H3	I will recommend my friends to move into my neighborhood	0.973		

Following Chiu and Wang (2008), construct reliability (CR) and convergent validity were tested for the measurement quality. CR or composite reliability and variance extracted (VE) measures the internal consistency of a particular construct implying high degree of shared variance between the manifesting variables and the construct (Hair et al., 2006; Yap and Khong, 2006). As shown in Table 2, the CR and VE for each construct were above 0.7 and 0.5 respectively, suggesting sufficient reliability and validity of the measurement used. Furthermore, the goodness-of-fit indices suggested that the measurement model provided good model fit according to usual conventions (normed $\chi^2 = 1.243$, CFI = 0.961, RMSEA = 0.049, GFI = 0.901). There was a clear implication that the latent variables of respective hypothetical concepts were converged in their respective factors. Meanwhile validity test on constructs was performed as well. Referring to the results from VE, discriminant validity can be measured. Discriminant validity was to ensure exogenous constructs do not have excessive shared variance, e.g. measuring the same hypothetical concept or latent meaning. Discriminant validity in this case can be measured using the approach from Fornell and Larcker (1981). Based on this method, the average variance expected (AVE) of the selected two constructs must be more than the square of the correlations between these two constructs. Based on Table 3, all AVEs were more than the respective square of correlations. Therefore the constructs proposed have discriminant validity indicating that all constructs are distinctive but correlated with one another. These results from CR and discriminant validity substantiate the instrument used in the survey and highlight the consistency of the literature in the Malaysian context.

Table 3 Correlations among constructs and discriminant validity

	r	r²	AVE	p value
Social Capital Investment (SC) <--> Financial Benefit (FB)	0.204	0.042	0.551	***
Social Capital Investment (SC) <--> Local Amenities Investment (LA)	0.370	0.137	0.606	***
Social Capital Investment (SC) <--> Residential Stability (ST)	0.455	0.207	0.541	***
Financial Benefit (FB) <--> Local Amenities Investment (LA)	0.242	0.059	0.588	***
Financial Benefit (FB) <--> Residential Stability (ST)	0.316	0.099	0.523	0.084
Local Amenities Investment (LA) <--> Residential Stability (ST)	0.570	0.325	0.578	***

Note: r denotes correlation coefficient

*** denotes significance at 0.05.

ASSESSMENT OF THE STRUCTURAL MODEL

In assessing the model, Structural Equation Modeling (SEM) is conducted using SPSS Analysis of Moment Structures (AMOS). This statistical technique encompasses methods like covariance structure analysis, latent variable analysis, confirmatory factor analysis, path analysis and linear structural relation analysis (Hair et al., 2006). It is used to estimate shared variances and interrelated dependence relationships among constructs. Therefore SEM is considered the most appropriate technique due to its ability to estimate “a series of separate, but interdependent, multiple regression equations simultaneously” (Hair et al. 1998, p. 584). Although the goodness-of-fit index (GFI) was below the acceptable threshold ($GFI = 0.840 < 0.90$), the structural model was considered to show adequate model fit, based on other established fit indices. The standardized root mean square residual was below 0.08 ($RMSR=0.067$). A good incremental fit measure denoted by non-normed fit index ($NNFI = 0.820$) and comparative fit index ($CFI = 0.940$) was obtained in the model, where acceptable threshold is above 0.80 and 0.90 respectively. As for parsimony fit index, the model reported normed χ^2 of 1.395, where the threshold is between 1 and 3. In short, the structural model can adequately measure and predict the causal relationships of the exogenous and endogenous constructs.

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Results in Table 4 showed that social capital investment was significantly and positively related to housing satisfaction with a standardized regression weight of 0.359 (H1 was supported), indicating homeowners in this survey evaluate their housing satisfaction based on the social interaction with others from the same neighborhood. These regression weights denote the degree of association between the exogenous and endogenous constructs. As explained earlier, individuals are motivated to own a house because they are able to reach a desired social status by communicating and interacting with their neighbour and friends. They are also able to derive supports from their social networks emotionally and financially. As a result, this motivation may contribute to higher housing satisfaction.

A positive and significant relationship was reported on the impact of local amenities investment on housing satisfaction. However, the relationship was not statistically significant (H2 was not supported). Contrary to previous findings, the active participation in local organizations to improve conditions in the surrounding neighbourhood may not lead to higher satisfaction.

Residential stability was significantly and positively associated with housing satisfaction with a standardized regression weight of 0.347 (H3 was supported). Similar to previous findings, the longer the households stay the more satisfied they become. As explained by Amerige and Aragories (1990) and Amole (2009), this is usually attributed to the tendency of households conforming or adapting to

their housing and residential environment over time, and consequently reporting a high level of satisfaction towards their housing and neighbourhood conditions. .

This study did not support the hypothesis that an increased in financial benefits of homeownership may contribute to higher housing satisfaction among homeowners. The most likely explanation for this insignificant relationship is that purchasing a home is the largest investment that most families will ever make. Unlike property investors, homeowners generally purchase their properties for own stay. They rather show a deeper commitment and greater satisfaction with the neighborhood, and they are directly linked with the surrounding area they live. The higher financial benefit may not manifest in greater housing satisfaction among homeowners.

Table 4 Regression weights among constructs

	Standardized estimates	p value
Housing Satisfaction (HS) <--- Social Capital Investment (SC)	0.359	***
Housing Satisfaction (HS) <--- Financial Benefit (FB)	-0.077	0.435
Housing Satisfaction (HS) <--- Local Amenities Investment (LA)	0.093	0.430
Housing Satisfaction (HS) <--- Household Stability (ST)	0.347	***

Note: *** denotes significance at 0.05.

The Interdependency of Homeownership Motivation Variables

Of six relationships between all exogenous variables, only financial benefit and residential stability were not significantly correlated with one another (Hypothesis 9 was not supported). As expected, social capital investment was significantly related to financial benefit, local amenities investment and residential stability of homeownership respectively (Hypothesis 5, Hypothesis 6, and Hypothesis 7 were supported). It is reasonable to believe that social capital may promote residential stability for homeowners as they can derive social and financial supports from their social networks in the stable environment. Furthermore, a social link among friends and family members may lead to active participation in local improvement groups. It is due to the fact that the equity homeowners have in their homes is affected by conditions in the surrounding neighborhood, thus, they work to influence these conditions through participation in local amenities and social capital investment.

Political activism among homeowners has obviously caused positive externalities for other homeowners who can freely ride on others' efforts to make the neighborhood a better place to live in. As a result, they are committed to remaining in the neighborhood for a long time (Hypothesis 10 was supported), and they may

obtain financial benefits of owning a house (Hypothesis 8 was supported). These results suggested that all home owning motivation variables are not independent but interdependent in housing satisfaction situations. The correlation results also implied that five additional paths are important extensions of the model because they help improve the ability of the model to predict housing satisfaction in Malaysian context.

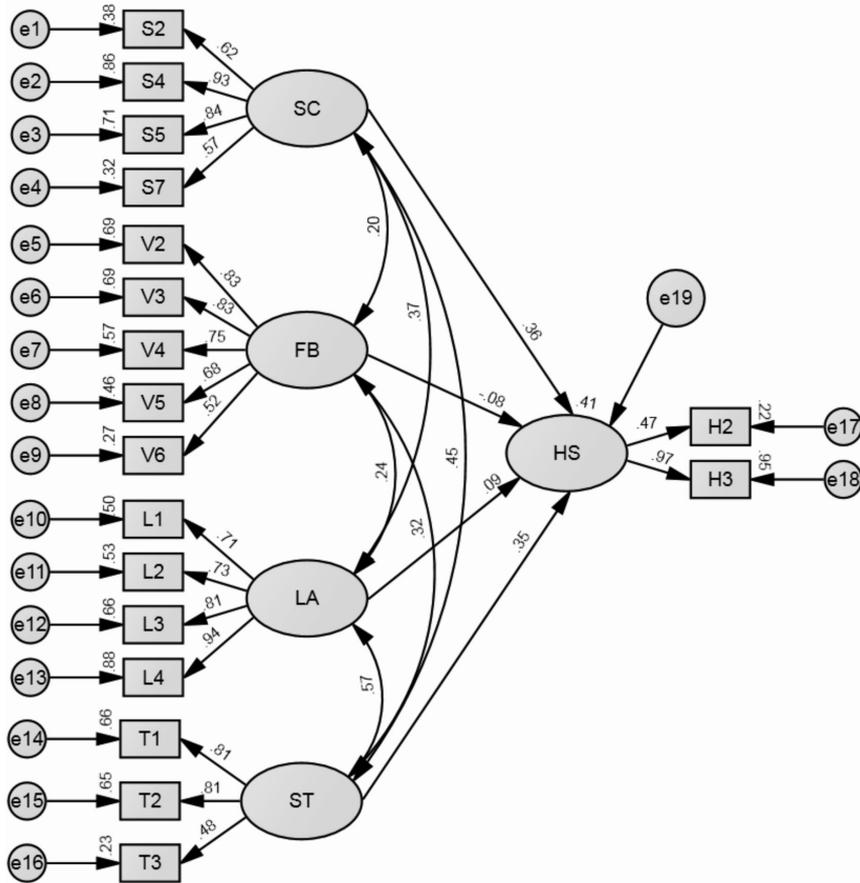


Figure 1 SEM path diagram (homeownership motivation and housing satisfaction)

CONCLUSION AND RECOMMENDATION

Results from previous studies show a strong statistical correlation between homeownership and housing satisfaction. Housing satisfaction is much higher

among homeowners compared to renters. Even with similar quality of housing units, homeowners are likely to be more satisfied than renters due to the fact that homeownership makes them psychologically proud (Kaitilla 1993). However, these relationships may be spurious because the degree of housing satisfaction may depend on households' motivations for homeownership.

To measure whether homeownership motivation matters, this paper includes several motivations of homeownership. These include social capital investment, local amenities investment, residential stability, and financial benefit of homeownership. Households are motivated to own a home because they expect to invest in the relationships by socializing and interacting with their neighbors and friends (social capital investment), improve the quality of neighborhood by participating local improvement groups (local amenities investment), receive housing returns by investing in housing (financial benefit), and avoid relocating costs by remaining in a neighborhood for a long time (residential stability). From the SEM analysis, social capital investment and residential stability of homeownership are shown to be significant determinants of housing satisfaction in Malaysian context. It may suggest that some of the effects of homeownership on housing satisfaction may be attributed to these motivations for owning a home. However, this study does not support the hypotheses where the higher the financial benefit and local amenities investment of home owning, the more likely homeowners are satisfied. The inconsistencies may be attributable to the fact that there seem to be other home owning motivation measures that may significantly explain households' housing satisfaction variance more significantly.

IMPLICATIONS FOR PRACTITIONERS

This study is relevant to housing developers as it also provides the necessary information to improve the housing delivery system by satisfying housing needs of homeowners. In order to achieve sustainability in the housing industry, housing developers should be sensitive to homeowners' interests by knowing the motivation of potential and existing homeowners. The main implications of this study are that housing developers should recognize the importance of orienting their activities to consider how and why households are motivated to home owning. For example, homeowners are motivated to own a house because they prefer to use public spaces outside of the home to interact and socialize with families and neighbors. They are also able to reach a desired social status by communicating with others. The open spaces in the neighborhood, particularly parks and gardens play an important role in supporting social sustainability as their primary function is for informal activities, relaxation, and social and community purposes (Choguill, 2008; Tan, 2011). Additionally, housing developers should pay attention to house designs that capture differences in life-cycle patterns of housing consumption of homeowners.

In the long run, meeting individuals' and families needs are critical to households who wish to stay in their houses for a long time.

LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDY

Given the limited number of empirical studies available, there is a need to explore further and undertake future research pertaining to homeownership in Malaysia. Although quantitative research has been conducted in this study, it is believed that qualitative research would further help to contribute to the research as it may create an understanding of the psyche behind the motivation of home owners, and gain insight by looking through different angles on the requirements of home owners of today. In-depth interviews have the ability to determine factors in great depth, which are typically not possible to determine through quantitative analysis.

The findings and results obtained from the questionnaire administered and the interview conducted are limited to households from four districts of Klang Valley, Malaysia. This means the results obtained may not be generalized to other regions in Malaysia. Future research needs to obtain information relating to households in other regions of Malaysia to compare perceptions and expectations from home owners throughout the region. Additionally, further research could be conducted on having a comparison study between Malaysia and other countries to examine the magnitude of differences in home owning motivation of households.

It must also be highlighted that the research only focuses on four motivations. It is recommended that future research explore other factors of motivations to see whether they could result in any increased variance in the motivation of homeownership in Malaysia.

REFERENCES

- Aaronson, D. (2000) A note on the benefits of homeownership, *Journal of Urban Economics*, **47**, 356 – 369.
- Adam, J.S. (1984) The meaning of housing in America, *Annals of the Association of American Geographers*, **74(4)**, 515 – 526.
- Adriaanse, C. C. M. (2007) Measuring residential satisfaction: a residential environmental satisfaction scale (RESS), *Journal of Housing and Built Environment*, **22**, 287 – 304.
- Amole, D. (2009) Residential satisfaction in student housing, *Journal of Environmental Psychology*, **29**, 76 – 85.
- Barcus, H.R. (2004) Urban-rural migration in the USA: An analysis of residential satisfaction, *Regional Studies*, **38(6)**, 643 – 657.
- Bolin, K., Lindgren, B., Lindstrom, M. and Nystedt, P. (2003) Investment in social capital – implications of social interactions for the production of health, *Social Science and Medicine*, **56**, 2379 – 2390.

- Bond, M. T. and Seiler, M. J. (1998) Real Estate Returns and Inflation: An Added Variable Approach, *Journal of Real Estate Research*, **15**, 237 – 338.
- Bourassa, S. C., Haurin, D. R., Haurin, R. J. and Hendershott, P. H. (2001) Independent Living and Home Ownership: An Analysis of Australian Youth, *Australian Economic Review*, **107**, 29 – 44.
- Carmines, E. G. and Zeller, R. A. (1979) *Reliability and Validity Assessment*. California: Sage Publications, 59 – 70.
- Carpiano, R. M. (2007) Neighborhood Social Capital and Adult Health: An Empirical Test of a Boudieu-based Model, *Health and Place*, **13**, 639 – 655.
- Chin, C. M. and Wang, E. T. G. (2008) Understanding Web-based Learning Continuance Intention: The Role of Subjective Task Value, *Information Management*, **45(3)**, 194 – 201.
- Choguill, C. L. (2008) Developing sustainable Neighborhood, *Habitat International*, **32**, 41 – 48.
- Crowder, K. D. and South, S. J. (2003) Neighborhood Distress and School Dropout: The Variable Significance of Community Context, *Social Science Research*, **32**, 659 – 698.
- Department of Statistics Malaysia. (2000) *Population and Housing Census of Malaysia*. Government Printer: Kuala Lumpur.
- DiPasquale, D. and Glaeser, E. L. (1999) Incentives and Social Capital: Are Homeowners Better Citizens? *Journal of Urban Economics*, **45**, 354 – 384.
- Elsinga, M. and Hoekstra, J. (2005) Homeownership and Housing Satisfaction, *Journal of Housing and the Built Environment*, **20**, 401 – 424.
- Fama, E. F. and Schwert, G. W. (1997) Asset Returns and Inflation, *Journal of Financial Economics*, **5**, 115 – 164.
- Flavin, M. and Yamashita, T. (2002) Owner-occupied Housing and the Composition of the Household Portfolio, *The American Economic Review*, **92(1)**, 345 – 362.
- Francescato, G., Weidemann, S. and Anderson, J. R. (1989) Evaluating the Built Environment From the User Point of View: An Attitudinal Model of Residential Satisfaction, in *Building evaluation* (Ed.) W. F. E. Preiser, Plenum Press: NY:
- Fornell, C. and Larcker, D. F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, *Journal of Marketing Research*, **18(2)**, 39 – 50.
- Galster, G. (1987) Identifying the Correlates of Dwelling Satisfaction: An Empirical Critique, *Environment and Behavior*, **19(5)**, 539 – 568.
- Gibson, K. J. (2007) The Relocation of the Columbia Villa Community: Views from Residents, *Journal of Planning Education and Research*, **27**, 5 – 19.
- Green, R. K. and White, M. J. (1997) Measuring the Benefits of Homeowning: Effects on children, *Journal of Urban Economics*, **41**, 441 – 461.
- Goetzmann, W. (1993) The Single Family Home in the Investment Portfolio, *The Journal of Real Estate Finance and Economics*, **6(3)**, 201 – 222.
- Goetzmann, W. and Spiegel, M. (2000) The Policy Implication of Portfolio Choice in Underserved Mortgage Markets, *Yale School of Management Working Papers* ysm 161.

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- Hair, J.F., Anderson, R. E., Tatham, R.L. and Black, W. C. (1998) *Multivariate Analysis*, 5th edition. Prentice Hall International: New Jersey.
- Hair, J.F., Anderson, R. E., Tatham, R.L. and Black, W. C. (2006) *Multivariate Analysis*, 6th edition. Prentice Hall International: New Jersey.
- Harkness, J. M. and Newman, S. J. (2003) Effects of Homeownership on Children: The Role of Neighborhood Characteristics and Family Income, *Economic Policy Review*, June 2003, 87 – 107.
- Haurin, D. R., Parcel, T. L. and Haurin, R. J. (2002) Does Homeownership Affect Child Outcomes? *Real Estate Economics*, **30**, 635 – 666.
- Hutchison, N. E. (1994) Housing As An investment? A Comparison of Returns from Housing with Other Types of Investment, *Journal of Property Finance*, **5(2)**, 47 – 61.
- Kaitilla, S. (1993) Satisfaction with Public Housing in Papua New Guinea, *Environment and Behavior*, **25(4)**, 514 – 545.
- Kan, K. (2007) Residential Mobility and Social Capital, *Journal of Urban Economics*, **61**, 436 – 457.
- Kellekc, O. L. and Berköz, L (2006) Mass Housing; User Satisfaction in Housing and Its Environment in Istanbul, Turkey, *European Journal of Housing Policy*, **6**, 77 – 99.
- Lien, H. M., Wu, W. C. and Lin, C. C. (2008) New Evidence on the Link Between Housing Environment and Children's Educational Attainments, *Journal of Urban Economics*, **64**, 408 – 421.
- Lu, M. (1998) Analyzing Migration Decision Making: Relationship Between Residential Satisfaction, Mobility Intentions, and Moving Behavior, *Environment and Planning*, **30**, 1473 – 1495.
- Lu, M. (1999) Determinants of Residential Satisfaction: Ordered Logit vs Regression Models, *Growth and Change*, **30**, 264 – 287.
- Lu, M. (2002) Are pastures greener? Residential consequences of migration, *International Journal of Population Geography*, **8**, 201 – 216.
- Masron, T. A. and Fereidouni, H. G. (2010) The Performance and Diversification Benefits of Housing Investment in Iran, *International Journal of Economic and Finance*, **2(4)**, 7 – 11.
- Mohit, M. A. and Ibrahim, M. and Rashid, Y. R. (2009) Assessment of Residential Satisfaction in Newly Designed Public Low-cost Housing in Kuala Lumpur, Malaysia, *Habitat International*, **34(1)**, 18 – 27.
- Morris, E. W. and Winter, M. (1975) A Theory of family Housing Adjustment. *Journal of Marriage and the Family*, **37**, 79 – 88.
- Natham, V. (1995) Residents' Satisfaction with the Sites and Services Approach in Affordable Housing, *Housing and Society*, **22(3)**, 53 – 78.
- Ogu, V. I. (2002) Urban Residential Satisfaction and the Planning Implications in a Developing World Context: The Example of Benin City, Nigeria, *International Planning Studies*, **7**, 37 – 53.
- Paris, D. E. and Kangari, R. (2005) Multifamily Affordable Housing: Residential Satisfaction, *Journal of Performance and constructed facilities*, **19**, 138 – 145.

- Preiser, W. F. E. (1989) Towards a Performance-based Conceptual Framework for Systematic POES. In W. F. E. Preiser (Ed.) *Building evaluation*. Plenum Press: New York.
- Poortinga, W., Dunstan, F. D. and Fone, D. L. (2008) Neighborhood Deprivation and Self-rated Health: The Role of Perception of the Neighborhood and of Housing Problems, *Health and Place*, **14**, 562 – 575.
- Robbin, S and Coulter, M. (2009) *Management, 10th edition*. Pearson Prentice Hall: New Jersey.
- Robbin, S., Bergman, R., Stagg, I. and Coulter, M. (2006) *Management, 4th edition*. Pearson Education Australia: NSW.
- Rohe, W. M. and Stegman, M. A. (1994) The Effects of Homeownership on the Self-esteem, Perceived Control and Life Satisfaction of Low-income People, *Journal of the American Planning Association*, **60(2)**, 173 – 184.
- Rohe, W. M. and Basolo, V. (1997) Long Term Effects of Homeownership on the Self Perceptions and Social Interaction of Low-income Persons, *Environment and Behavior*, **29(6)**, 793 – 819.
- Rohe, W. M. and Stewart, L. S. (1996) Homeownership and Neighborhood Stability, *Housing Policy Debate*, **7(1)**, 37 – 81.
- Rohe, W. M., Van Zandt, S. and McCarthy, G. (2001) The Social Benefits and Cost of Homeownership: A Critical Assessment of Research. Low-income Homeownership Working Paper Series, Joint Center for Housing Studies, Harvard University: Boston, Massachusetts.
- Rossi, P. H. and Weber, E. (1996) The Social Benefits of Homeownership: Empirical Evidence from National Survey, *Housing Policy Debate*, **7**, 1 – 35.
- Rubens, J. H., Bond, M. T. and Webb, J. R. (1989) The Inflation-hedging Effectiveness of Real Estate, *Journal of Real Estate Research*, **4**, 45 – 56.
- Tan, T. H. (2008) Determinants of Homeownership in Malaysia, *Habitat International*, **32**, 318 – 335.
- Tan, T. H. (2010) The Effects of Housing Characteristics on Neighborhood Stability of Homeownership, *International Journal of Business and Emerging Market*, **2(3)**, 286 – 304.
- Tan, T. H. (2011) Neighborhood Preferences of House Buyers: The Case of Klang Valley, Malaysia, *International Journal of Housing Market and Analysis*, **4(1)**, 58 – 69.
- Vera-Toscano, E. and Ateca-Amestoy, V. (2008) The Relevance of Social Interactions on Housing Satisfaction, *Social Indicators Research*, **86**, 257 – 274.
- Yap, B. W. and Khong, K. W. (2006) Examining the Effects of Customer Service Management (CSM) on Perceived Business Performance Via Structural Equation Modeling, *Applied Stochastic Models in Business and Industry*, **22(5)**, 587 – 606.