

To Retire or not to Retire: Intention towards Concept of Retirement Village in Malaysia

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Abstract

The aging population has become a global phenomenon, posing as a major societal issue, especially in developing countries. The retirement village concept has emerged as a reliable option to suit the retirement lifestyle of the elderly. The present study aims to explore the perceptions of Malaysians' buying intentions of retirement village units in Malaysia. Utilizing a quantitative approach, a total of 261 usable questionnaires were collected via self-administrated method and subsequently analyzed using PLS-SEM. Perceived risk, communicability, retirement planning, and social sustainability were found significant in influencing retirement village buying intention. The research findings have implications for both developers and academicians when embarking on retirement village project developments in Malaysia.

Keywords: Retirement Village, Elderly, Sustainability, Buying Intention, PLS-SEM, Malaysia

Introduction

The Malaysian population aged over 65 years old is projected to increase by more than 15% in 2030 (Department of Statistic, 2016). With the aging population increasing so rapidly, it is imperative to find ways to assist the older population to live their golden years in relatively good health and comfort. A home acts as a symbolic shelter to people as it represents a sense of safety and comfort. In particular, Tinker et al. (2013) stated that a tailored-made housing design, especially for the elderly, will increasingly become indispensable. Boaz et al. (1999) too had suggested that housing aspirations is more entwined with health and care issues as people turn older. Recently, the concept of retirement villages, which focuses on elderly healthcare and lifestyle, has emerged as a desirable housing option. Likewise, Stimson (2002) stated that retirement village has been extensively been accepted as a viable living option for retired life.

As highlighted by Simpson and Cheney (2007), the development of retirement villages has been associated with three social trends; (1) the medicalization of aging; (2) the development of positive-aging institutions; and (3), the improved lifestyle of the contemporary customer society. Some other push factors that encourage retirees to stay in the retirement village includes deteriorating health, weak family ties, loneliness, the death of a spouse, social isolation, and perceived high health risk (Stimson & McCrea, 2004).

The acceptance and demand for retirement villages are popularized among the aging population around the world in recent decades (Bernard et al., 2012). In Australia, almost 63% of the elderly was found to prefer living in retirement villages with professional care services (Judd et al., 2010). Similar trends are expected to be seen in developing countries (i.e., Malaysia). According to the Ministry of Women, Family and Community Development, the demands for senior's citizen homes are expected to increase tremendously by the year 2030 (Thestar.com.my, 2017). As pointed by Thestar.com.my (2017), the percentage of elderly who live alone in Malaysia spiked from 5.1% from year 2004 to 9% to year 2014, providing a vast opportunity for the development of retirement villages in Malaysia.

The landscape for retirees, especially among the baby boomers and future generations are changing as they see themselves as more than just grandparents who stay home to look after their grandchildren (Grant, 2006). The current and future elderly now look forward to living a more productive life in their retirement years. Thus, it is likely that the retirement village concept would be perceived positively among Malaysians as well. The current provision for health care facilities, old folk's homes and other facilities for elderly and retirees established by the government and private sectors were insufficient to cater for all the needs of the elderly (Kerr, Rosenberg & Frank, 2012). An exhaustive review of the pertinent literature revealed that there is a dearth of published research that specifically focused on retirement village buying intention in developing countries. Therefore, the current research, with the moderating effects of generation, aims to examine the factors that influence retirement village buying intention in Malaysia. This study is important for policymakers and housing developers in dealing with decisions that relate to housing properties for the elderly. The awareness to provide appropriate retirement homes for the elderly in Malaysia should be of pivotal interest to ensure elderly's quality of life is enhanced.

The structure of this paper proceeds as follows. In the next section, we introduce the ecological theory of aging (ETA) as the primary theory that supports the research framework and justification for hypotheses development. Next section discusses the research and sample design, followed by statistical results for the current study. Finally, we offer discussion on the results and conclude the paper with implications as well as recommendations for future studies.

Literature Review

Ecological Theory of Aging (ETA)

In the field of gerontology, the ecological theory of aging (ETA) is extensively applied in examining issues on person-environment interaction during old ages (Hu et al., 2015). ETA theorizes a significant relationship between the effects of the environment and the well-being of human beings. According to ETA, the competencies of the elderly and the environment, which refer to the surroundings that the elderly live in, need to be matched in a balanced way to establish a sense of well-being (Lawton, 1977). Different combinations of competencies and environment will result in different behavioral outcomes, whereby an imbalance between the two can lead to maladaptive behaviors (Iwarsson, 2005; Lawton, 1977). Based on the above discussion, Figure 1 provides a pictorial depiction of this research model for examining retirement village buying intention. It includes seven main components, namely; perceived risk, communicability, retirement planning, social sustainability, economic sustainability, environmental sustainability and buying intention.

Hypotheses Development

Perceived Risk and Buying Intention

Sweeney et al. (1999) stated that perceived risk is “defined as consumers’ subjective expectations of a loss when buying or utilizing a product”. In this study, perceived risk is proposed as one of the determinants that influence Malaysian’s retirement village buying intention. The idea of perceived risk was initially utilized by Bauer (1960) in consumer behavior research. Basically, consumers face various degrees of risk in their daily purchases (Kim, Ferrin, & Rao, 2008; Taylor, 1974) especially in buying “large ticket” items such as real-estate. This is because house buying is one of the most expensive and complex purchases one can make, which requires a high level of involvement for the consumer (Gibler & Nelson, 2003; Gronhaug, Kleppe & Haukedal, 1987). In view of that, perceived risk is typically experienced by individuals when evaluating the buying intention of a retirement village unit; that is, the higher the risk, the lower the overall evaluation of retirement village. As suggested by the previous study (Schiffman & Kanuk, 2004; Laforet, 2007) perceived risk is categorized into five sub-dimensions namely, financial risk, functional risk, physical risk, psychological risk, and social risk. Hence, we suggested that:

- H1** There is a negative relationship between perceived risk and retirement village buying intention.

Communicability and Buying Intention

Communicability is also suggested as a factor which may impact the elderly's buying intention of a retirement village unit. Morrison et al. (2001) stated that communicability is concerned with the frequency of imitating behavior performed by others, therefore maybe one of the most persuasive factors that could alter individual decision (Burnkrant & Cousineau, 1975). From consumer perspectives, adopting recommendations from other users is considered less biased, more credible and truthful compared to information provided by marketers (Daugherty & Hoffman, 2014). Past studies provided evidence of more than 77% of shoppers were influenced by the recommendation of other's in decision making (Bigne et al., 2010). To be precise, customer decisions are frequently impacted by communicability from people who they trust, especially in a huge buying situation (Lutz & Reilly, 1974). In the case of a retirement village unit, communicability refers to the reviews and comments shared by existing buyers that is expected to affect a person's opinion. Therefore, communicability is viewed as one of the factors in influencing buying intention of a retirement village, and the hypothesis is formulated as:

H2 There is a positive relationship between communicability and retirement village buying intention.

Retirement Planning and Buying Intention

Retirement planning is an individual's financial and non-financial preparation for their retirement life (Hanisch, 1995). Lai et al. (2009) found that that lack of preparation for retirement will generally cause some form of disappointment during retirement. Although planning for retirement can be a challenging task, people are advised to do so as earlier as possible to guarantee a higher living standard in their golden years (Ng et al., 2011). Just the action of retirement planning can be highly associated with a person's sense of control over their life (Moen et al., 2005). Therefore, individuals with sufficient retirement planning in place will tend to feel high intention towards buying a unit in retirement village during their old age.

H3 There is a positive relationship between retirement planning and retirement village buying intention.

Social Sustainability and Buying Intention

Sustainable retirement villages offer living options where elderly' social, economic and environmental needs are well-satisfied (Xia et al., 2015). Social sustainability features highlight all the facilities and activities in a retirement village that caters to the needs the elderly's needs. In terms of living space, the elderly look forward to an independent, secure and private living environment, with access to health-related facilities (KPMG, 2009) due to their physical limitations. The elderly also prefers to participate in community's activities actively to retain and expand their social networks during their old age (Taylor et al., 2014; Quine & Carter, 2006). Stimson and McCrea (2004) found that independent living with complete facilities and support services were the primary factors that influence relocation to a retirement village. Therefore, the village's developers should respond to this criterion when developing and managing retirement villages, and thus, this study posits the following hypothesis:

- H4** There is a positive relationship between social sustainability and retirement village buying intention.

Economic Sustainability and Buying Intention

Affordability is an imperative concern when considering staying in a retirement village as majority of the elderly experience reduced financial capability during their retirement age (Poterba et al., 2011). Numerous scholars have suggested that low living costs are one of the push factors that influence residents to move into a retirement village (Buys, 2001; Stimson & McCrea, 2004). Therefore, neglecting the issue of affordability can negatively influence the consumer demand of retirement village, as financial consideration is an important concern for residents in both pre and post-relocation phases (Crisp et al., 2013; Finn et al., 2011; Kennedy & Coates, 2008). Even though elderly aspired for an eco-friendly living environment, affordability is still a priority for them (Barker et al., 2012; Zuo et al., 2014). Hence, cost is always a significant element when choosing between retirement options. This leads us to the following hypothesis:

- H5** There is a positive relationship between economic sustainability and retirement village buying intention.

Environmental Sustainability and Buying Intention

Sustainability issues are gaining momentum in the construction industry (Xia et al., 2013). The on-going environmental campaigns provoked an increased awareness in implementing sustainable technologies and innovations in developing housing projects (West, 2001). Developers are encouraged to utilize environmentally friendly materials and consider an efficient architecture building design to minimize environmental issues (Smith, 2009). In the same token, retirement village with sustainable construction practices are highly prioritized by stakeholders as it alleviates negative environmental impact as well as improve elderly's health and well-being (Korkmaz et al., 2010; Green Building Council of Australia, 2011). Thus, the village's developers should focus on environmental sustainability issues when delivering a sustainable retirement village (Zuo et al., 2014). With the widespread acceptance of the green building philosophy, sustainable retirement villages should be viewed as a potential prerequisite in altering elderly's buying intention. The following hypothesis is developed:

- H6** There is a positive relationship between environmental sustainability and retirement village buying intention.

Moderating Role of Generation

The generational theory proposed that individuals can be differentiated based on their different age groups (Ting, de Run, 2015; Rotolo & Wilson, 2004). For example, individuals born in the early 1950' will behave in ways completely different as compared to those born in the 1960'. Generational cohort marketing has become a practical tool for marketers when segmenting their products as an individual born in the same cohort will share similar values (Schewe & Noble, 2000). Numerous studies revealed that age arises as an important factor towards individual's retirement

planning (Richardson & Kilty, 1989; Joo & Pauwals, 2002). Hence, it is not far to suggest that the perception of retirement living may also differ according to different age groups. Also, research findings reported that younger and older retirees' have different motivations when relocation to retirement village (Stimson & McCrea, 2004; Bradsher et al., 1992). Specifically, the younger cohort (i.e., Gen-X) appeared to be more open-minded to the concept of retirement village (Crisp et al., 2012). Thereby, the present study suggests that buying intention of retirement village among Gen-X is perceived to be higher compared to baby boomers. In light of above discussion, the hypotheses are developed as:

- H7a** Generation moderates the relationship between perceived risk and retirement village buying intention, where the negative relationship between perceived risk and buying intention is stronger among Gen-X.
- H7b** Generation moderates the relationship between communicability and retirement village buying intention, where the positive relationship between communicability and buying intention is stronger among Gen-X.
- H7c** Generation moderates the relationship between retirement planning and retirement village buying intention, where the positive relationship between retirement planning and buying intention is stronger among Gen-X.
- H7d** Generation moderates the relationship between social sustainability and retirement village buying intention, where the positive relationship between social sustainability and buying intention is stronger among Gen-X.
- H7e** Generation moderates the relationship between economic sustainability and retirement village buying intention, where the positive relationship between economic sustainability and buying intention is stronger among Gen-X.
- H7f** Generation moderates the relationship between environmental sustainability and retirement village buying intention, where the positive relationship between environmental sustainability and buying intention is stronger among Gen-X.

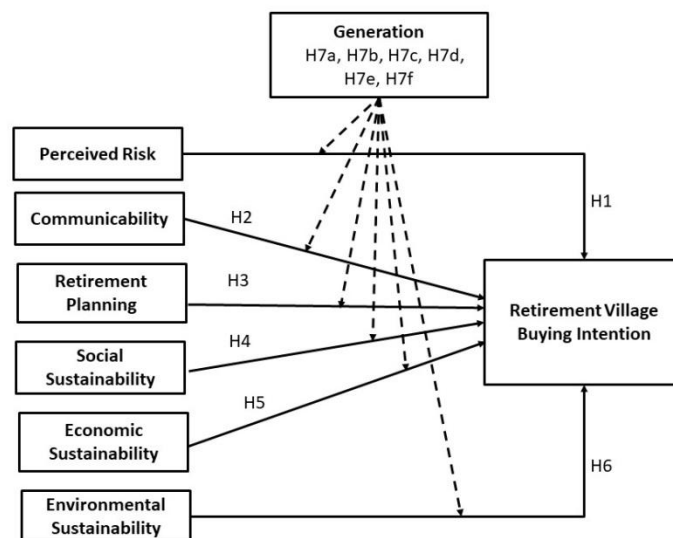


Figure 1: Research Framework

Research Design

Sample Design

Data was collected via a questionnaire through a self-administered survey technique. In quantitative research, a survey design is extensively used by scholars in social sciences, and is the best way to examine the correlation between variables (Zhang, Lu, Gupta, & Zhao, 2014). This study was participated by 261 (128 male and 133 female) Malaysian in urban areas (see Table 1). Overview of respondent profiling was assessed through SPSS software. Majority of the elderly were married (63.20 %), Malay (41%) and have 3-4 children (28.4%). In terms of occupation, 34.10% of them work in the private sector and 21.80% of them from the public sector. Retirees compose of 20.60% of the total respondents.

Table 1: Demographic Characteristics (n=261)

Demographic Profile		Frequency	Percentage (%)
Gender	Male	128	49%
	Female	133	51%
Marital Status	Married	165	63.20
	Divorced	18	6.90
	Single	59	22.60
	Widowed	19	7.30
Number of Children	None	65	24.90
	1-2	71	27.20
	3-4	74	28.40
	5-6	34	13.00
	7-8	15	5.70
	8 or more	2	0.80
Ethnicity	Malay	107	41.00
	Chinese	98	37.50
	Indian	32	12.30
	Others	24	9.20
Occupation	Government sector	57	21.80
	Private sector	89	31.40
	Self-employed	24	9.20
	Housewife	37	14.20
	Retired from government sector	21	8.00
	Retired from private sector	33	12.60
Total		261	100.00

Instrumentation

All constructs in this study were measured via multiple-item scales and adopted from previous studies as changed to fit the retirement village context. Perceived risk (composed of financial risk, psychological risk, social risk, physical risk, and functional risk) was measured using fifteen items adopted from Featherman and Pavlou (2003). Retirement planning was operationalized using 15 items, adopted from MacFarland et al. (2004); Noone et al. (2010) Petkoska & Earl (2009); Van Rooij, Lusardi, & Alessie (2012). Communicability and buying intention was measured

using two and four items, respectively, adapted from Li & Buhalis (2006), Morrison et al. (2001) and Ha & Janda (2012). Three of the sustainability features incorporate of social sustainability, economic sustainability and environmental sustainability were adapted from Hu et al (2017). All exogenous items were rated on a 5-point Likert scale, where 1 indicated “strongly disagree” and 5 indicated “strongly agree”, whereas endogenous variable was measured using 7-point Likert scale.

Findings

Common Method Bias

Common method variance issue has gained interest among researchers especially when the data was collected via self-reported questionnaires. Common method variance holds significant attention if data is collected from a single source (Podsakoff et al., 2003). By using Harman’s single factor approach, the results revealed that 31.87% (< 40%) of the variance was explained by the first factors (Hair et al., 2014), and thus, common method bias was not a serious issue for this study.

Measurement Model

In this study, confirmatory factor analysis was assessed via Smart PLS 3.2.8 software by examining both the outer model (i.e., validity and reliability) as well as inner model (i.e., hypotheses testing). According to Hair et al. (2017), SEM-PLS was the most appropriate approach for analyzing a complex model as it incorporates both formative and reflective constructs.

Reflective Model

In reflective measurement model, composite reliability (CR) was used to assess construct internal consistency, with accepted values should greater than 0.70 (Hair et al., 2017). Next, convergent and discriminant validity was assessed. According to Hair et al. (2017), outer loading and average variance extracted (AVE) revealed that convergent validity for the constructs surpassed the recommended thresholds with the value of 0.708 and 0.50 respectively (Hair et al., 2017). As presented in Table 2, all three constructs meet the minimum cut off value for CR, rho_A and AVE. Six items from retirement planning was deleted due to low loading (< 0.40). Hulland (1999) stated that items with loading less than 0.40 can be excluded from the reflective model. Identically, Hair et al. (2017) highlighted that items with lower loadings can be considered to be removed from the scale when the deletion will leads to an increase in AVE score.

Table 2: Measurement Model (n=261)

Constructs	Indicators	Outer Loading	CR	AVE
Communicability	COMM1	0.915	0.935	0.878
	COMM2	0.958		
Buying Intention	BI1	0.883	0.936	0.786
	BI2	0.910		
	BI3	0.904		
	BI4	0.848		

Retirement Planning	RP1	0.777	0.911	0.534
	RP2	0.126	Item Deleted	
	RP3	0.681		
	RP4	0.744		
	RP5	0.663		
	R_RP6	0.562		
	R_RP7	0.452	Item Deleted	
	R_RP8	0.148	Item Deleted	
	R_RP9	0.323	Item Deleted	
	RP10	0.133	Item Deleted	
	RP11	0.202	Item Deleted	
	RP12	0.748		
	RP13	0.820		
	RP14	0.729		
	RP15	0.816		

Note: CR (Composite Reliability), AVE (Average Variance Extracted); RP2, R_RP7, R_RP8, R_RP9, RP10, RP11 are deleted due to low loadings.

Assessment of discriminant validity has become common practice in PLS-SEM studies (Shah & Goldstein, 2006; Shook et al., 2004). The purpose of examining discriminant validity is to ensure that one construct measure is empirically distinct and symbolize phenomena of interest that do not capture by any others construct in a structural equation model (Hair et al., 2017). Discriminant validity between constructs was assessed using the Heterotrait-Monotrait Ratio of Correlations (HTMT) in the present study. In the HTMT criterion, HTMT value below than HTMT.85 value of 0.85 (Kline, 2011) or HTMT.90 value of 0.90 (Gold, Malhotra, & Segards, 2001) signifies the construct are different among each other. Therefore, the results as shown in Table 3 indicate sufficient discriminant validity.

Table 3: Discriminant Validity (HTMT Criterion, n=261)

	Buying Intention	Communicability	Retirement Planning
Buying Intention			
Communicability	0.611		
Retirement Planning	0.547	0.522	

Formative Model

Formative measurement model for this study is represented by three components of sustainability features (i.e., social, environmental and economic sustainability). Assessment of redundancy analysis with global item as recommended by Cheah et al. (2018) shows that the path coefficient with global items for three of the constructs values is at 0.752, 0.749 and 0.882 (>0.70), indicating a sufficient level of convergent validity (Sarstedt, Wilczynski & Melewar, 2013). Next, variance inflation factor (VIF) values were found below 5 which signify there were no multicollinearity issues for this data set (Hair et al., 2017). Lastly, the significance of formative indicators was assessed via outer weight. Table 4 shows that all the indicators for economic sustainability was significant (p <0.05). On the other hand, some of the indicators for

environmental and social sustainability were not significant (p -value > 0.05); however, all these indicators still be retained on the basis of content validity (Hair et al., 2017).

Table 4: Formative Measurement Model (n=261)

Constructs	Items	Convergent Validity (with the global item)	Outer Weight	VIF	t-value	p-value
Economic Sustainability	ECN1	0.752	0.713	1.575	6.746**	0.000
	ECN2		0.223	1.967	2.445**	0.007
	ECN3		0.206	2.051	1.737**	0.042
Environmental Sustainability	ENV1	0.749	-0.034	2.915	0.249	0.402
	ENV2		0.137	3.955	1.014	0.156
	ENV3		0.021	2.115	0.226	0.411
	ENV4		0.406	1.759	4.476**	0.000
	ENV5		0.174	1.506	1.986	0.024
	ENV6		0.520	1.791	5.553**	0.000
Social Sustainability	SS1	0.882	-0.047	3.313	0.530	0.298
	SS2		-0.015	2.789	0.184	0.427
	SS3		0.063	3.442	0.733	0.232
	SS4		-0.054	1.999	1.033	0.151
	SS5		0.053	3.725	0.560	0.288
	SS6		-0.157	3.952	1.577	0.058
	SS7		0.021	2.882	0.249	0.402
	SS8		-0.033	3.423	0.371	0.356
	SS9		0.107	3.134	1.215	0.113
	SS10		0.181	4.114	1.981*	0.024
	SS11		0.074	4.398	0.690	0.245
	SS12		0.116	4.555	1.253	0.105
	SS13		0.018	3.388	0.222	0.412
	SS14		0.135	3.116	1.751*	0.040
	SS15		-0.036	3.795	0.310	0.378
	SS16		0.072	3.374	0.952	0.171
	SS17		0.218	3.251	2.660**	0.004
	SS18		0.108	4.261	1.173	0.121
	SS19		-0.054	1.818	1.089	0.138
	SS20		0.118	3.649	1.361	0.087
	SS21		0.196	4.018	2.051*	0.020
	SS22		0.029	3.456	0.327	0.372
	SS23		0.122	2.285	1.883*	0.030
	SS24		-0.003	4.251	0.028	0.489
	SS25		-0.121	4.634	1.143	0.127
	SS26		0.065	1.818	1.002	0.158
	SS27		0.185	2.750	2.395**	0.008
	SS28		-0.081	2.973	0.925	0.178
	SS29		0.158	3.883	1.862*	0.032
	SS30		0.181	3.285	1.582	0.057

Note: ** $p < 0.01$, * $p < 0.05$; VIF < 5

Higher Order Construct (Perceived Risk)

In this study, perceived risk represents reflective-formative higher order components (HOCs) that constitute five lower-order components (LOCs) (i.e., financial risk, psychological risk, social risk, physical risk, and functional risk). Repeated indicator approach is used to obtain the latent variables scores (LVS) for the LOCs in the first stage (Hair et al., 2016). In the second stage, LOCs serve as the manifest variable in the HOC measurement variable (Hair et al., 2016).

Convergent validity of 0.789 (correlations between LOCs) greater than the ideal magnitude of 0.70 (Hair et al., 2016) indicates that all dimension for perceived risk was correlated positively. Collinearity issue was checked using variance inflation factor (VIF) as shown in Table 5. All the LOCs constructs are distinct from each other's with VIF scores less than 3.33 (Diamantopoulous & Siguaw, 2006). Assessing of significance test exhibited that, functional risk is the only dimension significant (t-value=2.335; p-value=0.01). Although the remaining dimensions (i.e., financial risk, psychological risk, social risk, and physical risk) were insignificant, these sub-dimensions were retained as priori research and theory support for the relevance of these dimension in capturing the concept of perceived risk (Bauer, 1960).

Table 5: Second Order Constructs (n=261)

Sub-Dimension or LOCs	Convergent Validity (Global item)	Weight	VIF	t-value	p-value
Financial Risk	0.823	0.104	2.822	1.372	0.085
Psychological Risk		0.184	3.179	1.922*	0.028
Social Risk		-0.018	1.746	0.269	0.394
Physical Risk		0.157	3.205	1.858*	0.032
Functional Risk		0.667	2.468	8.999**	0.000

Note: **p<0.01; LOC (Low Order Constructs)

Descriptive Statistics

Table 6 exhibited that the mean score for all the latent variables are ranged between 2.308 to 4.448 whereas the standard deviation ranges from 0.503 to 1.175 within a five-point Likert scale. Among that, social sustainability scored the highest mean (4.448) whereas functional risk showed the lowest mean (2.308). The dispersion values as reported by standard deviation demonstrated that communicability showed the highest value (1.175) however social sustainability represent the lowest value (0.503). Additionally, buying intention exhibited a high mean score (5.074) and a moderate standard deviation (1.369) on a seven-point Likert scale. Table 6 summarizes the result for descriptive analysis.

Table 6: Descriptive Analysis (n=261)

No	Construct	No of Items	Mean	Std. Deviation
1	Perceived Risk- (Financial Risk) *	3	2.457	0.893
2	Perceived Risk- (Psychological Risk) *	4	2.514	0.852
3	Perceived Risk- (Social Risk) *	2	2.345	0.969
4	Perceived Risk- (Physical Risk) *	3	2.314	0.815
5	Perceived Risk- (Functional Risk) *	3	2.308	0.855
6	Communicability*	2	2.889	1.175

7	Retirement Planning*	9	3.799	0.735
8	Economic Sustainability*	3	4.342	0.614
9	Environmental Sustainability*	6	4.192	0.650
10	Social Sustainability*	30	4.448	0.503
11	Buying Intention**	4	5.074	1.369

Note: *5 points Likert scale, ** 7point Likert scale

Structural Model

Prior to the analysis, the potential existence of multicollinearity issues between the variables was tested using a variance inflation factor (VIF) test, which results indicate that all the variables have VIF values of between 1.266 and 1.808. According to Diamantopoulos & Siguaw (2006) VIF value of less than 3.33 is apart with collinearity issues.

Table 7: Collinearity Result (n=261)

Construct	Convergent Validity (Global item)
Communicability	1.475
Economic Sustainability	1.518
Environmental Sustainability	1.266
Perceived Risk	1.369
Retirement Planning	1.808
Social Sustainability	1.589

The coefficient of determination (R^2) indicates the amount of variance explained by the exogenous variables (Barclay, Higgins & Thompson, 1995). All six variables together explained 54.8% of the variance. By using a bootstrapping re-sampling technique with 500, the path coefficient, p-value and t-value revealed for the hypothesized relationships. As clear from Table 8, all four factors namely perceived risk ($\beta = -0.404$, $p=0.000$), communicability ($\beta = 0.244$, $p=0.000$), retirement planning ($\beta = 0.1444$, $p=0.015$) and social sustainability ($\beta = 0.43$, $p=0.006$) had significantly influence on retirement village buying intention. On the other hand, the relationship between economic sustainability ($\beta = 0.023$, $p=0.015$) and environmental sustainability ($\beta = 0.021$, $p=0.357$) on buying intention is insignificant.

Table 8: Path Coefficient (n=261)

Path	Direct Effect (β)	Std Error	t-value	p-value	f^2	Decision
H1) PR -> BI	-0.404	0.057	7.083**	0.000	0.264	Supported
H2) COMM -> BI	0.244	0.058	4.205**	0.000	0.089	Supported
H3) RP -> BI	0.144	0.067	2.167**	0.015	0.026	Supported
H4) SS -> BI	0.143	0.057	2.503**	0.006	0.028	Supported
H5) ECN -> BI	0.023	0.051	0.418	0.338	0.001	Not Supported
H6) ENV -> BI	0.021	0.058	0.367	0.357	0.001	Not Supported

Note: ** $p < 0.01$; PR (Perceived Risk), COMM (Communicability), RP (Retirement Planning), SS (Social Sustainability), ECN (Economic Sustainability), ENV (Environmental Sustainability), BI (Buying Intention)

In the same vein, to measure the magnitude of the effect size (f^2) we adopted Cohen's (1988) rule of thumb which 0.02, 0.15, and 0.35, representing small, medium, and large effects respectively. The f^2 score in Table 8 indicated that perceived risk (0.264) has a medium effect size on buying intention. However, there are three constructs demonstrated a small effect size on buying intention which comprises of communicability (0.089), retirement planning (0.026) and social sustainability (0.028). Conversely, both economic (0.001) and environmental sustainability (0.001) showed no effect on buying intention.

The last step of the structural model was evaluating on the predictive validity of the model via blindfolding procedure. Followed Hair et al. (2016), the study stated that exogenous variables have predictive relevance for the endogenous variable if $Q^2 > 0$. Similarly, the Q^2 of buying intention equivalent to 0.405 signifies that this model shows a good predictive relevance.

Moderating Effect

The initial R^2 (=0.548) for the structural model was compared with the model with the inclusion of generation as the moderator. The new R^2 (=0.570) with an increase of 0.022 shows that a generation raised a small explanatory power of 2.20% (Cohen, 1988) as compare to the original model.

Table 9 shows moderation analysis results with generation as the moderator. It can be seen that the effect of economic sustainability ($\beta=0.238$, $p<0.05$) and environmental sustainability ($\beta=-0.141$, $p<0.05$) on retirement village buying intention is moderated by generation. This relationship is strong in the case of Gen-X respondents. Hence hypothesis H7e and H7f are supported. However, all other hypotheses are not supported by generation as a moderator.

Table 9: Moderating Effect of Generation (n=261)

Path	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H7a	PR*GEN -> BI	-0.051	0.114	0.449	0.327	Not Supported
H7b	COMM*GEN -> BI	-0.114	0.108	1.057	0.146	Not Supported
H7c	RP*GEN -> BI	0.249	0.157	1.589	0.056	Not Supported
H7d	SS*GEN -> BI	-0.107	0.151	0.709	0.239	Not Supported
H7e	ECN*GEN -> BI	0.238	0.124	1.925*	0.027	Supported
H7f	ENV*GEN -> BI	-0.141	0.068	2.070*	0.019	Supported

Note: ** $p<0.05$; PR (Perceived Risk), COMM (Communicability), RP(Retirement Planning), SS (Social Sustainability), ECN (Economic Sustainability), ENV (Environmental Sustainability), BI (Buying Intention), GEN(Generation)

The significant moderating relationship was further explained by drawing the interaction plot (Dawson, 2014). As can see in both Figure 3 and4, the dotted line labeled for Gen-X has a steeper slope when compared to baby boomers. This phenomenon demonstrated that the relationship between environmental sustainability and retirement village buying intention as well as the relationship between economic sustainability and retirement village buying intention were stronger among Gen-X. Thus, our hypotheses H7e and H7f are supported.

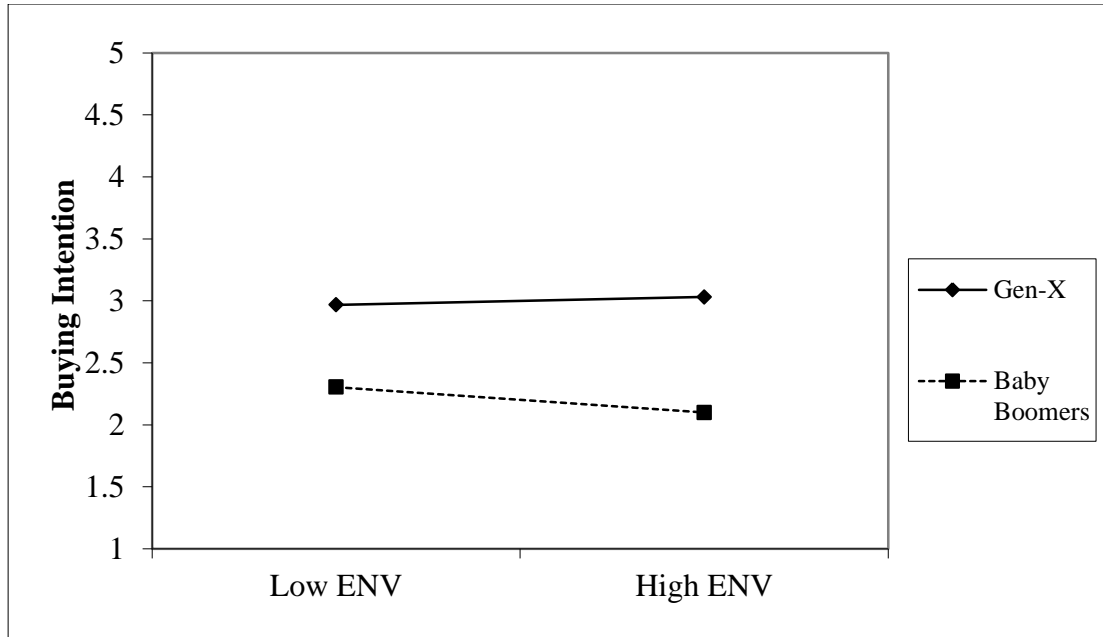


Figure 3: Interaction plot of Environmental Sustainability* Generation

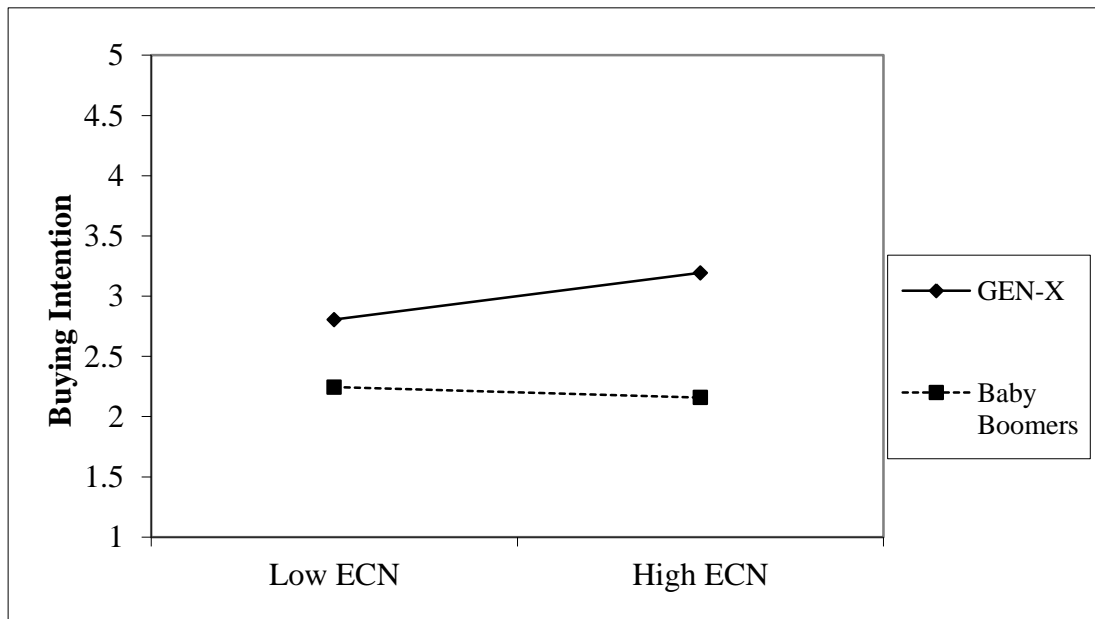


Figure 4: Interaction plot of Economic Sustainability* Generation

Discussion

Firstly, there is a significant effect of perceived risk on buying intention. This parallels with previous work which provides robust arguments regarding a direct relationship between perceived risk and buying behavior (Kataria et al., 2016; Gefen, 2002; Thorelli et al., 1989). This finding was similar in retirement village context as this housing option is still a novel idea and may take some time to be accepted among Malaysians. In other words, majority of the respondents are risk-averse when making buying decisions on retirement village. Therefore, developers with an in-depth understanding of the different types of risks experienced by potential retirement unit buyers could alter their value proposition accordingly and implement strategies to enhance the buyer's confidence. In particular, property developers are advised to provide detailed information to reduce buyer's financial, functional and physical risk. Meanwhile, social and psychological risk can be decreased through sharing of living experience by existing residents.

The study also found that communicability positively influenced the intention to buy a unit of retirement village. Today, with the increasing popularity of online social networks such as Facebook and Twitter, online reviews have become one of the most persuasive tools that will impact consumer's evaluation (Fu et al., 2011). Undeniably, online reviews were found to alter consumer behaviors (Goldenberg, Libai & Muller, 2001; Vermeulen & Seegers, 2009). Consequently, village developers should take great effort in building a good reputation and persuasive review when marketing the idea of retirement village among Malaysian.

Next, path coefficient results indicated that retirement planning has a significant positive relationship on retirement village buying intention, which suggested that strategic retirement planning will increase the likelihood of buying a retirement village unit. Planning and saving in advance of retirement will assist the elderly to enjoy a comfortable living during their old ages (Kimiyaalam et al., 2017).

In term of sustainability features, social sustainability has shown a positive relationship with retirement village buying intention. This suggests that a retirement village that comprises of ergonomic consideration will positively influence Malaysian buying intention. Croucher et al. (2006) asserted that the elderly highly value independent and secure living environments, as well as companionship among the community. Therefore, the village's developers must carefully consider social sustainable practices that are specially tailored to the elderly when managing and planning retirement village's facilities.

Meanwhile, contrary to Xia et al. (2015) and Zuo et al. (2014), the study found a non-significant relationship between environmental and economic sustainability with buying intention of retirement village. This may be explained by Papargyropoulou et al.'s (2012) study, which suggested that awareness towards environmental issues in Malaysia is relatively low compared to other developed countries. To add to that, the concept of sustainable development in the Malaysian real-estate industry is still at infancy stage (Hassan et al., 2011), hence this criterion was not fully highlighted among the buyers as well as developers (Hassan et al., 2011).

In terms of economic sustainability, affordability is less of a concern for respondents in this study compared living in a secure environment. This can be explained by the study's scope of the urban respondents with the majority belonging to medium and high-income group. Similarly, research by Crisp et al., (2013) found that higher education levels and greater employment opportunities of urban buyers might show a less constrained financial concern when making a housing decision, as compared to others group of consumers.

Lastly, the moderating effect of generation was found significant between economic sustainability-intention and environmental sustainability-intention relationship. This result was consistent with an extant study which reported that generational cohorts influence consumer's values, preferences, and shopping behavior (Parment, 2011). The findings indicated that generation moderates the relationship between both economic and environmental sustainability features in retirement village buying intention where these relationships are strengthened among Gen-X. This provides a useful insight for the village's developers by uncovering the differences when promoting the concept of retirement village in Malaysia. The significant effect of perceived risk, communicability, retirement planning as well as social sustainability on retirement village buying intention were seen to be identical among both generation (i.e., Gen-X and Baby Boomers). However, both features of economic and environmental sustainability should be prominent when targeting on Gen-X.

Implications and Future Studies

The current study provides few theoretical and managerial implications. From the theoretical perspective, the current study provides a new theoretical insight in the context of retirement village by using quantitative approach that was lacking in prior studies. Additionally, the present study also verified the applicability of ecological theory of aging (ETA) in explaining the determinants that influence retirement village buying intention in Malaysia.

From the managerial perspective, this study provides interesting insights for property developers to develop and promote retirement village developments in Malaysia. The study's findings show that perceived risk, communicability, retirement planning, and social sustainability are the significant factors that alter Malaysian's buying intention towards a retirement village unit. Hence, developers should highlight these features when developing and promoting their village project in order to gain more acceptances from the buyers. Also, generation cohort may also be used to segment the target market when devising a marketing strategy. In short, the development of retirement villages should be responsive to the perception of Malaysian consumers in order to enhance the quality of retirement life among the elderly in Malaysia.

This study has several limitations. First, the findings of this study merely captured the differences between two generation cohort (i.e., baby boomers and Gen-X). Future studies are suggested to explore other age cohorts as suggested by Ting et al. (2017). In particular, the Malaysian cohorts can be divided into five different groups; for instance, Strivers (those who born during the early 1960s to the late 1970s) were found to focus more on stability and a comfort lifestyle, while Reformers (those who born between 1940s-1960s) struggled to live for a better life, thus, it will be

interesting to understand their perception toward the concept of retirement village. It is also worth mentioning that this research only examines the elderly's buying intention. Follow-up studies are needed to verify the validity of the model tested in their actual behavior. Furthermore, future studies may delve into subsequent residents' living experience and satisfaction in the retirement villages to provide more useful insights.

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