



Available Online at www.e-iph.co.uk
 Indexed in Clarivate Analytics WoS, and ScienceOPEN

Lisbon – Malacca Port Cities Twin Conferences 2019 / 2020

E-B
 Environment - Behaviour
 Proceedings Journal

AicQoL2020Malacca

ASLI (Annual Serial Landmark International) Conferences on QoL2020
<https://www.amerabra.org/>; <https://fspu.uitm.edu.my/cebs/>; <https://www.emasemasresources.com/>

8th AMER International Conference on Quality of Life

Mahkota Hotel Melaka, Malacca, Malaysia, 18-19 Mar 2020

(Due to the Covid-19 lockdown, paper virtually presented on 25 Mar 2020)



The Elderly (Senior) Housing Preferences among Generations in Malaysia

Hafiszah Ismail¹, Faridah Muhamad Halil², Aida Wati Zainan Abidin⁴, Mohamad Sufian Hasim³

¹Centre of Studies for Estate Management,

²Centre of Studies for Quantity Surveying,

³Centre of Studies for Bulding Surveying,

Faculty of Architecture, Planning and Surveying

³Centre of Studies for Statistical and Decision Science, Faculty of Computer and Mathematical Sciences

Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia

hafiszah@uitm.edu.my, faridahmh@uitm.edu.my, moham315@uitm.edu.my, aida@tmsk.uitm.edu.my

Tel. No.: ++603-5544 4285

Abstract

The elderly (senior) is a unique generation with specific housing preferences. This study aims to provide an overview on the elderly housing preferences of the Malaysian generations. The objectives of this study are: (i) To define elderly; (ii) To identify the elderly housing preferences features; and (iii) To determine the elderly housing preferences by different age group (generations). The study adopts mixed-method strategy and revealed; (i) Health; (ii) Safety; (iii) Convenience; (iv) Amenity; and (v) Community as the preferred elderly housing features. This study provides guidance to the main actors of property development on the preferred elderly housing features.

Keywords: Elderly (Senior) Housing; Aging-in-Place; The Residential Environment Preferences; Generations

eISSN: 2398-4287 © 2020. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.
 DOI: <https://doi.org/10.21834/e-bpj.v5i13.2102>

1.0 Introduction

Every generation is distinctive as they linked with diverse characteristics alongside with different needs and preferences. Generations are different types of population which distinguished based on their age group or on the year they were born. The elderly (senior) generation which also known as the Baby Boomers generation is a group of population of 60 years and above of age. The year born of this generations are; Baby Boomers - born between 1946 to 1961; Generation X (Gen-X) - born between 1962-1976; Generation Y (Gen-Y) - born between 1977-1999; and Generation Z (Gen-Z) - born after 1992 (Ismail et. al., 2019). The continuous rise of the Elderly (Senior) population or the Baby Boomers generation alongside the world population worldwide have resulted studies and discussion conducted on various issues concerning the population. Facts and figures (statistics) of the Elderly (Senior) or the Baby Boomers generations continually forecasted and presented showing the importance of this generation towards nation and community. The numbers of Asia's population aged 60 and over projected to increase from 507.95 million (or 11.6% of the population) in 2015 to 1,293.7 million (or 24.6% of the total population) by 2050 (United Nations, 2015). As for Malaysia, the population anticipated rising from 28.6 million (2010) to 41.5 million (2040) (Department of Statistics Malaysia, 2019). The current numbers of Malaysian aged 60 years and above is estimated to be 1.4 million and projected to increase to 3.3 million in the year 2020. The Malaysian elderly will also continue to

eISSN: 2398-4287 © 2020. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.
 DOI: <https://doi.org/10.21834/e-bpj.v5i13.2102>

increase up to 14.5% out of the total population by 2040. The continuous demographic changes especially rising numbers of the elderly (senior) population will hugely give impact to the housing market, particularly on the demand side due to the unique needs and preferences. Nevertheless, despite this continuous increase as compared to other developed countries currently, less attention is being given on the Malaysian elderly (senior) housing provisions. Due to the growth and improvement of the longevity of the elderly (senior) population in Malaysia, more emphasis should be put in offering more options of housing concept or living arrangement for this unique group of generation. According to Amiri (2018), challenges faced by the elderly should be given an earnest emphasis by providing housing facilities for them. It is increasingly clear that changes and improvements are urgently needed in terms of providing adequate housing for a steadily ageing population and creating community environments that are supportive and livable for all (Mohd. Tobi et al., 2017). Therefore, it is vital to conduct a study in determining the Malaysian elderly (seniors) housing needs and preferences to enhance the quality of life of this specific community through the promotion of the elderly-friendly housing concept. This study aims to provide an overview of the elderly (senior) housing preferences of the Malaysian generations. The main objectives of this study are: (i) To define elderly (senior); (ii) To identify the elderly (senior) housing preferences features; and (iii) To determine the elderly (senior) housing preferences by different age group (generations) in Malaysia.

2.0 Literature Review

2.1 The Elderly (Senior) and the needs for Elderly (Senior) Housing

There is a various range of age in defining the elderly (senior) worldwide. In Western societies, the start of old age considered to be coinciding with the age of retirement, which is from 60 to 65 years of age (WHO, 2007). In accordance to the United Nations World Assembly on Ageing held in Vienna in 1982, in which the age of 60 years and above adopted for deliberating issues on ageing. Malaysia has also taken this age range in formulating and implementing plans for its senior citizens with the present age of 55 years of age (Phillip and Chan, 2002). For the Asian countries, the age group of the elderly (senior) population can be referred to The Association of Southeast Asian Nations' (ASEAN) age scale for the population. ASEAN a political and economic organization consists of ten members' countries including Malaysia, Indonesia, Philippines, Singapore, Thailand, Brunei, Laos, Myanmar and Cambodia defined seniors or elderly are those aged 60 years and above. In relevance, the retirement age in Malaysia used to be 58 years for the public sector and 55 years for the private sector, but this increased to 60 years for both sectors in 2014. Therefore, for this study, the term Elderly (Senior) generation in Malaysia is implying to those ages 60 years old and above. The effect of population ageing on housing demand has been concerned by scholars locally and globally. The growth of the ageing population and their high purchasing power will in future make one of the most important customer groups and a decisive driver for the success of companies in many industrial sectors (Bloom et al., 2011). Hence, the seniors (elderly) are now becoming the unique potential housing consumers accompanied with special needs and preferences. In relevance, a key concern of seniors will be the quality of life in their old age. Housing is essential not only because an older person (elderly) needs a secure and comfortable home but also because housing provides a social surrounding for seniors to interact with others in the community. Planning for the housing situation of an ageing population is one of the challenges of many countries. Numerous studies on elderly housing have been conducted internationally due to the awareness of the importance of needs of the elderly in the community. The experiences of the elderly are diverse. Thus, understanding diversity requires a comprehensive analysis of the elderly in various contexts. In Malaysia, the issues of elderly housing needs and aspirations are often either neglected or not given proper emphasis. Lim (2012) implied that the understanding of the critical issues surrounding the needs and desires of the elderly is crucial to reform the existing policy and framework for related elderly service provision.

2.2 Aging-in-Place and the Elderly (Senior) Housing Preferences

The concept of Aging-in-Place is the central concept in discussions or studies on Elderly (Senior) Housing Preferences. Initial Aging-in-Place concepts created to gain an understanding of the meaning of older persons attached to a place or a physical or emotional space. While the early definitions of ageing in place do not exclusively connect the place with one's own home, over the years, the meaning has shifted to be more home-specific. Much of the literature and the field think ageing in place as the ability to remain in one's own home or a community setting over one's life, until old age (Weil & Smith, 2016). Ismail et al. (2019) stated that although the Malaysian senior (elderly) generations preferred to age in place and lived independently for as long as possible, however, there is a time where this generation would have no choice but to be dependent to others. Thus, as a result, this forced them to move to other housing location or different types of housing or living arrangement specifically for elderly (senior).

In relevance, household motives for moving vary by age group. Households more than 50 years old tend to move less often than do younger households, and when they do move, they move for different reasons. For example, households in the 50-64 range tend to move for better jobs or better housing. Households over 75 years old will move to obtain more affordable housing or for health reasons. Overall, the desire to be closer to family and friends rises in importance as the household ages (Mathews, 2007). This action of moving/mobility for the elderly can also refer to as 'late-life moves'. Litwak and Longino (1987) suggested late-life moves can be classified according to their triggering mechanism (retirement, moderate, disability and significant chronic disability), and would be expected, if undertaken, to occur sequentially along the life course. Positive environmental and lifestyle preferences motivate the first move in the topology. It is most often taken by recent retirees who are married, relatively healthy and has sufficient retirement income. The second move is, widowed and increasing chronic disabilities combined with lack of financial resources which can make it difficult for residents to perform everyday household tasks within a traditional house. Those anticipating or experiencing such problems may move to adjust their housing to a lower cost, more manageable dwelling with easier access to services and kin (Friedrich and Warnes, 2000; Longino

et al., 1991; Speare and Meyer, 1988). This second assistance move may be either a short-distance move or long-distance return migration into smaller, shared and rental housing (Warnes, 1992a). Finally, the third move in the topology often occurs because severe illness or severe chronic disabilities push the mover into shared or institutional housing. This move may be local or long-distance (Litwak and Longino, 1987), depending on where its available for assistance (Gibler et al., 2009). The other reasons/decisions for the elderly to move can be listed as follows (see Fig. 1).

Reasons to move during the Elderly (Senior) Age		
Lee and Gibler (2004)	Livette (2006)	Gibler (2009)
<ul style="list-style-type: none"> • Need continuous health care assistance • Access to personal care services • Unwilling/unable to do household chores • Loss of spouse • More social contacts and activities • Freedom and independence • Reduce housing costs • Closer to children or relatives 	<ul style="list-style-type: none"> • Stairs difficult to climb • Garden difficult to manage • Loneliness • Bereavement 	<ul style="list-style-type: none"> • My previous property was not suitable for my needs • I had to move due to health, mobility or other problems • I did not enjoy living in that type of home (flat, villa, etc.) • Urban issues of traffic, noise, pollution etc • It was an expensive property to maintain • There were not enough facilities/services • To capitalize on the increase in the value of my previous property • It was not a safe area • I did not like the neighbourhood • There was an increase in the cost of living • It was far away from friends and relatives properties

Fig. 1: The Decisions to Move of the Elderly (Senior)

The above elaboration on 'late-life moves' can be further explained by referring to Mathews (2007) who defines; 'Boomerang retirees' are individuals who, after moving to an amenity-oriented location, later leave to return to their original community or move closer to family. Anecdotal evidence suggests that such moves are triggered by increasing disability or loss of a spouse.

Buying a house is a multi-elements exercise, involve considering a list of choices or attributes, including tenure options, housing types, neighbourhood, location, etc. Different age category such as elderly or youngster will ascribe different values to these attributes in which, influence their purchasing decision Wang & Li (2006). Boumeester (2011) (Fig. 2) has summarized that there are two types of housing features, known as the dwelling and environmental features, which would become the fundamental framework for developing the attributes for this study.

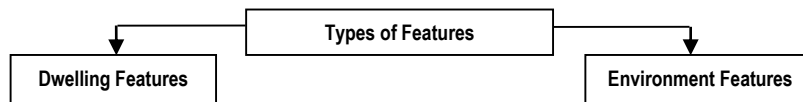


Fig. 2: Types of housing features that will influence the preference of Elderly
(Source: Boumeester, 2011)

3.0 Methodology

Mixed method research strategy via qualitative and quantitative data gathering employed in this study of elderly (senior) housing preferences of the Malaysian generations. A research problem can better understand by the use of mixed-method strategy (qualitative and quantitative) a combination of data collection and analysis in a single study or cycle of studies (Creswell, 2006; Creswell and Plano, 2007). The use of mixed method strategies in each study provides better understanding of research problems rather than a single unaided strategy. The importance that mixed methods add up to the study can be achieved through numerous basis (Cresswell, 2009). Three (3) primary purpose of data collection in survey research involve interviews, questionnaire administration and observation on people or phenomena (Sekaran and Bougie, 2010). Demographics or the population are the prime factor of property development, particularly for housing provisions that strongly relate with demand and supply of housing. Demographic changes will influence the housing market with the variation of housing needs and preferences. The first data collection conducted via qualitative strategy through interviews with the main actors of property development (local authorities and housing developers in Selangor). Officers from the planning department of 12 local authorities in Selangor (i.e. the City Councils, Municipalities and District Councils) and representatives of prime housing developers in the state were interviewed in this study by using structured and semi-structured questions. The interviews were relevant to prove the link between population (generations) growth and the effect of the changes to the property market. This process is also vital to validate two main issues of the study by the expert from the industry. The concerning issues were; (i) the importance of demographics (populations) as one of the prime factors in property development; and (ii) the elderly (senior) housing preferences factors derived from the literature reviews. Next, determinations of the preferred elderly (senior) housing features among Malaysian generations were acquired through quantitative data via survey questionnaires with a total sum of 1,067 respondents of samples for the study. The findings from the quantitative data were significant in observing the differences between needs and preferences of elderly (housing) between Malaysian generations (different age group of housing consumers). The quantitative respondents contacted for this study through several survey strategies that include drop-off, face-to-face interview, postal interview, and internet survey (web-survey). Therefore, this study is limited under several grounds; (i) The Case Study - Selangor; (ii) Qualitative - 12 local authorities & 2 main housing developers in Selangor; (iii) The Malaysian housing consumers preferences - Baby Boomers, Gen-X, Gen-Y and Gen-Z. This paper will present and discuss the quantitative data obtained.

4.0 The Senior (Elderly) Housing Preferences: Main Findings

4.1 Types of housing preferred among generations: Comparisons between current and senior (retirement) age

Each generation is associated with different needs and preferences due to different generational characteristics (Ismail et al., 2019). The following tables and figures presented the main findings on the Malaysian Senior (Elderly) Housing preferences by generations. Table 1 shows the preferences of current housing types by generations. Most of the Baby Boomers currently stay in terrace houses (61.1 per cent) and bungalow (19.4 per cent). The other generations such as Generation X (59.3 per cent), Generation Y (49.7 per cent) and Generation Z (46.7 per cent) also currently stays in terrace housing.

Table 1: Preferred Housing Types by Generations – Current Housing Preferences

Type of housing	Baby Boomers		Generation X		Generation Y		Generation Z	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Terraced house	22	61.1	108	59.3	151	49.7	21	46.7
Semi-detached	4	11.1	10	5.5	14	4.6	1	2.2
Detached	-	-	1	0.5	3	1.0	-	-
Cluster house	-	-	2	1.1	3	1.0	1	2.2
Townhouse	-	-	4	2.2	2	0.7	1	2.2
Flat	1	2.8	22	12.1	48	15.8	11	24.4
Apartment /Condominium	2	5.6	23	12.6	62	20.4	6	13.3
Service apartment	-	-	4	2.2	5	1.6	1	2.2
SOHO	-	-	-	-	3	1.0	-	-
Bungalow	7	19.4	7	3.8	12	3.9	3	6.7
Others	-	-	1	0.5	1	0.3	-	-

Table 2: Preferred Housing Types by Generations - Senior (Retirement) Age

Type of housing	Baby Boomers		Generation X		Generation Y		Generation Z	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Terraced house	7	21.2	49	28.2	84	29.1	8	18.2
Semi-detached	8	24.2	46	26.4	72	24.9	6	13.6
Detached	1	3.0	7	4.0	11	3.8	1	2.3
Cluster house	-	-	3	1.7	1	.3	1	2.3
Townhouse	-	-	10	5.7	7	2.4	2	4.5
Flat	-	-	4	2.3	2	.7	2	4.5
Apartment /Condominium	1	3.0	4	2.3	11	3.8	2	4.5
Service apartment	2	6.1	1	.6	2	.7	-	-
SOHO	-	-	-	-	1	.3	-	-
Bungalow	14	42.4	48	27.6	98	33.9	22	50.0
Others	-	-	-	-	-	-	-	-

* Single-storey wooden kampung house/Village home

Table 3: Senior/Elderly (Retirement) Age: Types of Terrace Housing Preferred by Generations

Type	Baby Boomers		Generation X		Generation Y		Generation Z	
	Number of respondents	Percent	Number of respondents	Per cent	Number of respondents	Per cent	Number of respondents	Percent
Single storey terrace	4	57.1	13	26.5	34	40.5	-	-
2 – 3 storey terrace	3	42.9	36	73.5	50	59.5	8	100
Total	7	-	49	100.0	84	-	-	-

Table 4: Senior /Elderly (Retirement) Age: Types of Semi-Detached Housing Preferred by Generations

Type	Baby Boomers		Generation X		Generation Y		Generation Z	
	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent
Single storey semi-detached	6	75.0	19	41.3	29	41.4	2	33.3
2 – 3 storey semi-detached	2	25.0	27	58.7	41	58.6	4	66.7
Total	8	-	46	100.0	70	-	6	-

Table 5: Senior/Elderly (Retirement) Age: Current vs. Elderly (Retirement) Age Preferences

PERIOD OF HOUSING PREFERENCES	GENERATION / PREFERRED TYPE OF HOUSING			
	Baby boomers	Generation X	Generation Y	Generation Z
Current Housing	(1) Terraced house (2) Bungalow (3) Semi-detached	(1) Terraced house (2) Apartment/Condo (3) Flat	(1) Terraced house (2) Apartment/Condo (3) Flat	(1) Terraced house (2) Apartment/Condo (3) Bungalow

Senior (Retirement) Age Housing	(1) Bungalow	(1) Terraced house (2-3 storey)	(1) Bungalow	(1) Bungalow
	(2) Semi-detached (single storey)	(2) Bungalow	(2) Terraced house (2-3 storey)	(2) Terraced house (2-3 storey)
	(3) Terraced house (single storey)	(3) Semi-detached (2-3 storey)	(3) Semi-detached (2-3 storey)	(3) Semi-detached (2-3 storey)

The only difference arises if being compared to the Baby Boomers generation were on the next type of current accommodation accommodated by the other generations. It shows that besides terrace houses the other type of current housing were strata type; Generations X – apartment/condominium (12.6 per cent) and flat (12.1 per cent), Generation Y – apartment/condominium (20.4 per cent and flat 15.8 per cent) while the Generation Z – flat (24.4 per cent) and apartment/condominium (13.3 per cent).

4.2 Housing Options at Senior (Retirement) Age

Table 7.91 shows the preferred housing options at Senior (Retirement) age. In detail by generations; most of both the Baby Boomers (52.3 per cent) and Generation X (43.4 per cent) prefers to 'age in place'. As explained by Mathew and Turnbull (2007), the meaning of ageing in place can divide into two categories; (i) Living in a particular home as long as possible, or; (ii) Living in a series of home within a specific community. Therefore, with this finding of high preference to age in place by the Baby Boomers and Generation X show two (2) possibilities. The first possibility of which they prefer to be living in a particular home as long as possible and thus resembles the sense of belonging to 'home attachment'. The second possibility is they prefer to be living in a series of home in a particular community that resembles the sense of belonging to 'community attachment'. The findings show the Baby Boomers, and the Generation X prefers to be living in the same housing location found for their current, future and senior housing preferences (i.e., the same location under the same local authorities; City Council and Municipal Councils). Moreover, findings on the essential attraction factors for future housing (i.e., location, house and neighbourhood) also reveal that both the Baby boomers and Generation X chose neighbourhood as their priority as compared to the other attraction factors. These two (2) previous findings show sign of community attachment.

In contrast, the difference found between these two (2) generations were on their next preferred options of senior housing. The Baby boomers beside the preference to 'age in place' this generation chose to 'move to other location and be living with family members' (25.3 per cent) if they have to do so at the senior age. While as for Generation X, their next preferred options were to 'move to other location and live independently' at their senior age. The other two (2) generations of Generation Y and Generation Z also show significant differences in the preferred options of senior housing as compared to the Baby boomers and Generation X. For example, in the majority of the Generation Y (37.4 per cent) and Generation Z (45.5 per cent) chose and put the highest priority and will decide to 'move to other locations and live independently' at the senior age. Also, their next preferred options were to 'age in place' at the senior age (Generation Y – 37.4 per cent and Generation Z – 34.1 per cent). The only similarity found were, all of the generations (Baby boomers, Generation X, Generation Y and Generation Z) show the least preferences on the option of 'move to other types of housing specifically for the elderly/senior citizen. The types were referring to the Single-Family Housing, Retirement/Age-Restricted Community, Nursing home'.

The Malaysian Baby Boomers prefer to age in place, live by their own and to be living near to their family members during the retirement life stage. Mobility on the housing market plunges with age (Ismail et al., 2019). The Elderly (Senior) were less mobile as compared to the younger generations. However, due to specific reason, the Baby Boomers will once again become mobile and move. If this happens, the findings show that the Baby Boomers will move to other location but still prefer to live on their own (independently). They would also move to other to other location and chooses to be living in with their family members. Most importantly, although with limitation of Elderly (Senior) housing options in Malaysia the generations show preferences to be living in a specific type of housing for elderly (senior) which also known as the 'Age-Restricted' Housing. The strongest predictor of isolation in old age is living alone (Wu and Chan, 2012). The preferences of the Malaysian generations on the Elderly (Senior) housing options show that the Malaysian generation supports Active Ageing and thus indicates that there will be no sign of 'isolation' in retirement life stage.

Table 6: Housing Options at Senior Age (Retirement Age) by Generations

Housing option	Baby Boomers		Generation X		Generation Y		Generation Z	
	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent
Ageing in place	23	52.3	75	43.4	97	33.9	15	34.1
Move to other location & live independently	8	18.2	68	39.3	107	37.4	20	45.5
Move to different location & live with family members	11	25.3	18	10.4	73	25.5	8	18.2
Move to a different type of housing specifically for the elderly	2	4.5	12	6.9	9	3.1	1	2.3

4.3 Reasons for Moving to Other Location at Senior Age

Mobility on the housing market plunges with age. Conversely to younger age groups, older adults were less mobile and displayed some trend to 'stay-put' or age-in-place. The elderly (senior) or households of more than 50 years tend to move less often than the younger households, and when they do move or decides to be mobile, they move for diverse reasons (Ismail, 2019). The respondents by generations (Baby Boomers, Generation X, Generation Y and Generation Z) were asked to rank (scale 1 – 5) on the reasons for moving to move to other locations during their senior age (retirement age) (Table 7a, Table 7b, Table 7c and Table 7d). The questions are given to obtain some idea on senior housing mobility by generations at the senior age. The reasons for moving to other locations at the senior age (retirement age) by generations were as follows:

- **Loss of spouse** – The ranking of choices on this reason was similar on three (3) generations. It was considered to be as the most important reason and ranked as; 1st choice - Baby Boomers (66.7 per cent); Generation Z (41.2 per cent); and 2nd choice by Generation Y (25.5 per cent). In contrast, Generation X was the only generation who regard 'loss of spouse' as the least important reason of moving to other locations at the senior age (ranked as the 5th choice – 29.8 per cent).
- **Unwilling or unable to do house chores** – The ranks of choices for this reason varied. This reason regarded to be as vital by the Baby Boomers (ranked as the 2nd and 3rd choices of reason – 33.3 per cent). Generation Y viewed this reason as much less important - 3rd and 4th choice (321.8 per cent). This was also considered to be as less critical reason by Generation X (4th choice – 26.6 per cent) and Generation Z (5th choice – 33.3 per cent).
- **To reduce housing costs** – This reason was regarded to be as among the most important reason of moving to other locations at the senior age by all generation (Baby Boomers, Generation X, Generation Y and Generation Z). It was ranked as; 1st choice by the Generation X (28.7 per cent); 2nd choice by the Generation Y (25.5 per cent); and as the 3rd choice by the Baby Boomers and Generation Z.

Table 7a, 7b, 7c & 7d: (a) Reasons for Moving To Other Locations at Senior Age – Baby Boomers; (b) Reasons for Moving To Other Locations at Senior Age – Generation X; (c) Reasons for Moving To Other Locations at Senior Age – Generation Y; (d) Reasons for Moving To Other Locations at Senior Age – Generation Z

7a: Reasons for Moving to Other Locations at Senior Age
Baby Boomers

Rank	BABY BOOMERS		
	Reasons for Moving at Senior Age	%	No.
1 st	• Loss of spouse	66.7	20
2 nd	• Unwilling or unable to do house chores (2&3)	33.3	8
	• To be closer to friends and relatives	34.6	9
	• To have access to personal-care services	36.4	8
	• To have more social contacts and activities (2&3)	30.4	7
3 rd	• Unwilling or unable to do house chores (2&3)	42.9	12
	• To have more social contacts and activities (2&3)		
	• To reduce housing costs		
4 th	• The advice of relatives (4&5)		
5 th	• Need for continuous health-care assistance	33.3	9
	• To have more freedom and independence	29.6	8
	• The advice of relatives (4&5)	26.7	4

7c: Reasons for Moving to Other Locations at Senior Age
Generation Y

Rank	GENERATION Y		
	Reasons for Moving at Senior Age	%	No.
1 st	• To be closer to friends and relatives	36.8	70
	• Need for continuous health-care assistance (1&2)	23.4	34
	• To have more freedom and independence	34.5	68
2 nd	• Loss of spouse	25.5	26
	• To reduce housing costs	25.5	51
	• To have more social contacts and activities	28.8	59
	• Need for continuous health-care assistance (1&2)		
3 rd	• Unwilling or unable to do house chores (3&4)	21.8	31
	• To have access to personal-care services	25.9	42
4 th	• Unwilling or unable to do house chores (3&4)		
5 th	• Advice of relatives	29.3	29

7b: Reasons for Moving to Other Locations at Senior Age
Generation X

Rank	GENERATION X		
	Reasons for Moving at Senior Age	%	No.
1 st	• To reduce housing costs	28.7	41
	• Need for continuous health-care assistance	34.9	29
	• To have access to personal-care services	24.3	27
	• To have more freedom and independence	34.8	47
2 nd	• To be closer to friends and relatives	24.4	29
	• To have more social contacts and activities	39.0	53
3 rd			
4 th	• Unwilling or unable to do house chores	26.6	25
5 th	• Loss of spouse	29.8	17
	• Advice of relatives	27.9	17

7d: Reasons for Moving to Other Locations at 60 years of Age
Generation Z

Rank	GENERATION Z		
	Reasons for Moving at Senior Age	%	No.
1 st	• Loss of spouse	41.2	7
	• To have more freedom and independence	33.3	9
2 nd	• Need for continuous health-care assistance (2&3)	29.4	5
	• To have access to personal-care services	40.0	6
	• To have more social contacts and activities (2&4)	31.0	9
3 rd	• To reduce housing costs	34.4	11
	• To be closer to friends and relatives (3&5)	28.6	8
4 th	• Need for continuous health-care assistance (2&3)		
	• To have more social contacts and activities (2&4)		
5 th	• To be closer to friends and relatives (3&5)	33.3	7
	• Unwilling or unable to do house chores		
	• Advice of relatives	53.8	7

- **The reason to be closer to friends and relatives** – This were considered to as the most important reason by three (3) generations; 1st choice - Generation Y (36.8 percent); 2nd choice – Baby Boomers (34.6 percent); and Generation X (24.4 percent). Adversely, it was considered to be as both the as an important and less important by the Generation Z (3rd & 5th choice - 28.6 percent).
- **Need for continuous health-care assistance** – This reason shows some differences in term of choices made. It was regarded as most important reason by three (3) generations; Generation X - their 1st choice (34.9 percent); Generation Y - 1st and 2nd choice (23.4 percent); and Generation Z - 2nd & 3rd choice (29.4 percent). In contrast, this was regarded to be as the least important reason (5th choice) by the Baby Boomers (33.3 percent).
- **The reason of to be having access to personal-care services** – This was regarded as among the most important reason by all generation with the ranking of being the 1st to 3rd choice of preferred reason. It was selected to be as; the 1st choice of reason - Generation X (34.9 percent), 2nd choice - Baby Boomers (36.4 percent) and Generation Z (29.4 percent); and 3rd choice - Generation Y (25.9 percent).
- **The reason to have more social contacts and activities** – This was chosen to be as among essential reason by all generation ranked as the 2nd and 3rd choice. This was also chosen to be as; the 2nd and 3rd choice - Baby Boomers (30.4 per cent); 2nd

choice – Generation X (39 per cent), Generation Y (28.8 per cent) and Generation Z (31 per cent). It was chosen to be important and the less important reason both at the same time by the Generation Z (31 per cent).

- **The reason to have more freedom and independence** – This show some differing ranks of choice by the generations. It was chosen to be the most important reason and ranked as the 1st choice preferred by three (3) generations; Generation X (34.8 per cent); Generation Y (34.5 per cent); and Generation Z (33.3 per cent). In contrast, it was regarded to be less critical and were chosen to be as the 5th choice of reason by the Baby Boomers (29.6 per cent).
- **The advice of relatives** – This were the least preferred reason by the generations. Ranked as; 4th & 5th choice - Baby Boomers (26.7 per cent); and 5th choice - Generation X (27.9 per cent), Generation Y (29 per cent) and Generation Z (53.8 per cent).

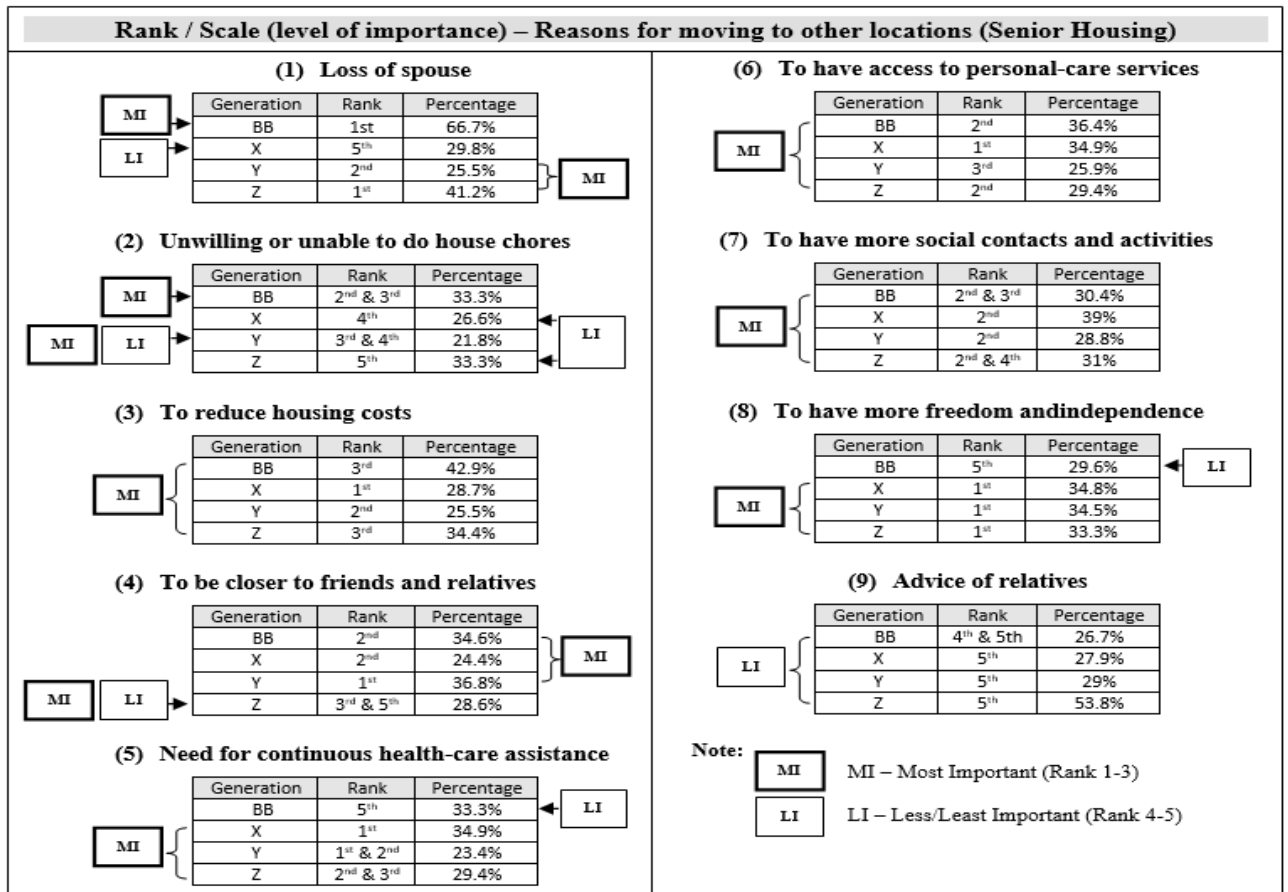


Fig. 3: Summary of rankings (level of importance) – Reasons for Moving to Other Location at Senior Age by Generations

The findings on reasons for moving to other location or to other housing type specifically for elderly (senior) by the Malaysian generation is summarised in Fig. 3. The main reasons of moving during retirement age life were mainly due to; (i) loss of a spouse; and (ii) unable to take care of themselves (thus requires specialised housing/Assisted Living). The Malaysian elderly (senior) generation (Baby Boomers) were less mobile as compared to other younger generations as they prefer to age in place. However, there might be a time that would be having no choice and were 'forced' to move due to the needs of being dependent on others. This mobility stage among elderly (senior) is called as the 'late-life moves'.

4.4 The Residential Environment Preferences Features at Senior Age

The Residential Environment Preferences at Senior Age with five (5) main features; Convenience, Amenity, Health, Safety, Community was examined using five (5) response itemized rating scale with a '1' indicating 'Not important at all' to '5' indicating 'Very important'. The five (5) main features examined and each feature measured based on several measurable items. The performance of the items in measuring each latent feature was evaluated using reliability analysis (Cronbach Alpha values) with results, as shown below (Table 8).

Table 8: Reliability Analysis Results - General/Overall

Features	Number of items	Reliability coefficient
Overall features	5	.887
Convenience	14	.875
Amenity	8	.828
Health	4	.908
Safety	9	.884
Community	6	.699

Table 9: Residential Environment Preferences Features by Generation – Mean & Standard Deviation

Main features	Baby Boomers		Generation X		Generation Y		Generation Z	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Overall preference	3.75	1.171	4.47	.712	4.38	.640	4.42	.567
Convenience	3.37	1.662	4.41	.856	4.40	.776	4.36	.802
Amenity	3.55	1.355	4.34	.866	4.21	.847	4.20	.842
Health	3.80	1.374	4.49	.816	4.47	.772	4.42	.812
Safety	4.00	1.201	4.63	.747	4.51	.768	4.67	.477
Community	4.10	1.144	4.45	.864	4.32	.807	4.44	.813

As for the reliability analysis in general (overall), it shows that all the reliability values were above .70, which indicated high internal consistency except for the feature 'community'. The community has moderate reliability. In addition, as for the reliability analysis in detail according to the generations, the results were presented as per tables (Table 9) shown by; mean scores and standard deviation together with the average importance of residential environment features by generations. The average importance of residential environment features by generations summarized by the illustration of the findings (Fig. 3).

Fig. 4 illustrates summarized findings for Residential Environment Preference at Senior (Retirement) Age by generations. Safety was perceived as the 1st or main preferred features for Residential Environment at Senior (Retirement) age by all generation (Baby Boomers, Generation X, Generation Y and Generation Z). Whereas, convenience and amenity were ranked as 4th and 5th importance by the generations. In addition, by generations Baby Boomers, Generation X and Generation Y perceived; (1) Safety; (2) Community; and (3) Health as the top three (3) features of Residential Environment Preferences at Senior (Retirement) Age. Generation Y, in contrast, regard Convenience as the 3rd vital features.

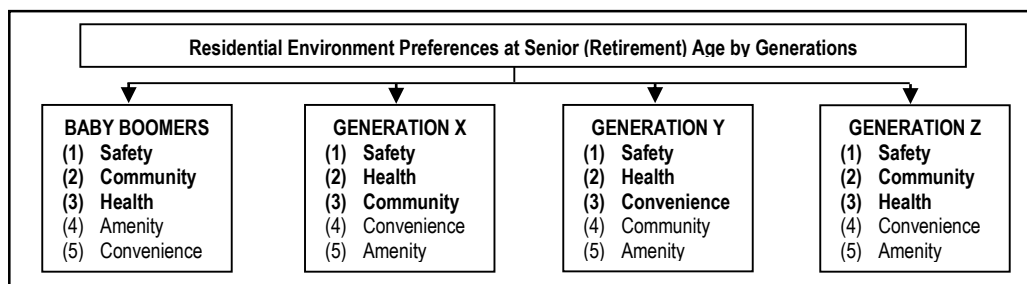


Fig. 4: The Residential Environment Preferences at Senior Age (Retirement) Age by Generations

5.0 Discussions

The above findings show that Malaysian housing consumers from different generations (Baby Boomers, Generation X, Generation Y and Generation Z) prefer to age in place during their senior (retirement) age. It is abundantly clear that older people value ageing in place. Ageing in place is about expressing and retaining a sense of identity, social relationships, and autonomy or independence and choice (World Health Organization 2017). Promoting Aging in Place (AIP) is a policy objective for both developed and developing countries (World Health Organization, 2007). The preference of the Malaysian generations to age in place during their elderly (retirement age) indicates that various strategies have to be planned to cater the need of the elderly (senior) population in a different aspect. The planning includes the housing provisions or making the community environment as elderly-friendly as possible for this specific generations. Community support networks were found to be an essential social, environmental element for AIP (Gardner, 2011). Moreover, the findings also show the willingness of the generation to move if they have to. The findings show that this generation for specific reasons is willing to move to another location and live independently or moving to other types of housing, specifically for the elderly (senior) generation. Despite their preference to be living independently, most importantly they wish to be living near to their family members. The Elderly (Senior) are most happy with family life, especially with their children (Läidmäe et al., 2012). Social support of family is also vital to improve the quality of life of the elderly (Chalise, 2010). Research in many cultural settings shown older people prefers to be living in their own homes and communities (WHO, 2011). As compared to other developed countries, the most common Elderly (Senior) housing option offered in Malaysia is the nursing home.

The findings from this study reveal the acceptance of the Malaysian generation on the introduction of the elderly (senior) housing living arrangement concept in the Malaysian context. Despite familiarity with the Age-Restricted Housing Concept, the acceptance on the concept shown through the level of preferences on various types of offered concept. The Elderly (Senior) housing concept can be further devised into Independent and Assisted Elderly (Senior) housing type. More options of Elderly (Senior) housing types and concepts should be made available in Malaysia to promote active ageing. This action is essential to assist the Elderly (Senior) generation to able them to adjust well during their retirement life stage. Baby Boomers were the empty nesters, prefer to be independent and with the tendency of staying right where they are (same neighbourhood) for their entire elderly life. Thus, better housing policies for the elderly generations should be made available for better elderly housing provisions (Ismail & Mohamed Shaari, 2019). The generational preferences of the Malaysian generations on diverse types of Retirement/Age-Restricted Community housing such as the Assisted, Unassisted, Shared and Supported home housing despite their familiarity on the concepts indicate the need of specifically tailored elderly (senior) housing concept for Malaysian context (Ismail et al., 2019).

6.0 Conclusion and Recommendations

Each type of population or different categories of generations are unique and accompanied by their characteristics. The uniqueness and differences of different generational characteristics resulted in different needs and preferences according to each generation. In relevance, the continuous increase of world population together with the growing numbers of the elderly (senior) population which also known as the Baby Boomers generation shows a good indication of improvement in world and nation populations of health condition. The escalating numbers of the elderly (senior) population will intensely influence the housing market and give effect to the Malaysian housing demand in particular (Ismail, 2019). The senior (elderly) generation or the 'grey hair' consumer has been acknowledged in each segment, and this includes on the housing market in specific. As compared to other developed countries and including the neighbouring country like Singapore, the availability of elderly (senior) housing options in Malaysia is still limited. The most common type of elderly (senior) housing option offered in Malaysia is the nursing home. With the findings presented in this study, it is hope it can provide some indication of acceptance on other types of elderly (senior) housing living arrangement options like the Age Restricted and Multi-Generational housing. This indication is important to continually support the effort of various parties in providing a better quality of life for the future elderly (senior)/Baby Boomers generations in Malaysia.

This study on the Malaysian elderly (senior) housing preferences contribute valuable information to the main actors of property development (i.e.: local authorities and housing developers) on the Age-Restricted Living Arrangement preferred by the Malaysian generations. As a start, with examples from overseas which have established in their provisions of elderly (senior) housing concepts, it is now time for the main Malaysian actors of property development to be offering similar concept with some alteration to be suited with the Malaysian contexts. Both the public and private sectors should collaborate and work together hand in hand in providing better and affordable options of elderly (senior) housing living arrangements for the Malaysian generations. Elderly-friendly housing features can be embeds in Multi-Generational Housing Concept in housing developments in Malaysia to support the elderly (senior) to age gracefully and independently without isolation with the community. Further studies on the Elderly-Friendly housing features for the housing environment or elderly-friendly design for the dwelling itself in specific can be conducted to gain more insight on the needs and preferences of this unique 'grey/silver hair' housing consumers (Elderly/Senior generation). Inclusion of such features can be extended in the Multi-Generational Housing Concept, which is also new for the Malaysian perspective.

Acknowledgements

The authors would like to express our gratitude and to thank The Institute of Research, Management and Innovation (IRMI), Universiti Teknologi MARA (UiTM) for the award of funding this study under the Lestari Grant 2018 (600-IRMI 5/3/LESTARI (023/2018)).

References

- Amiri, M. (2018). Problems Faced by Old Age People. *The International Journal of Indian* Volume 6, Issue 3, pp. 52-62
- Bloom, D.E., Canning, D. and Fink, G. (2011), "Implications of population ageing for economic growth", available at: www.nber.org/papers/w16705.pdf?new_window%41
- Boumeester, H. J. F. M. (2011). Traditional Housing Demand Research. doi:10.1007/978-90-481-8894-9
- Chalise, H. 2010. Social support and its co-relation with loneliness: a cross-cultural study of Nepales older adults. *Aging and Human Development*, Vol. 71(2) 115-138, 2010
- Creswell, J. W., & Plano, Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage
- Creswell, J.W. (2009). *Research Design Qualitative, Quantitative and Mixed Methods Approaches*. California: SAGE Publications, Inc.
- Friedrich, K. and Warnes, A.M. (2000) 'Understanding contrasts in later life migration patterns: Germany, Britain and the United States', *Erdkunde*, Vol.54, pp. 108-20
- Gardner, P. J. (2011). Natural neighborhood networks: important social networks in the lives of older adults aging in place. *Journal of Aging Studies*, 25, 263–271. doi:10.1016/j.jaging.2011.03.007
- Gibler, K. M., Casado-Diaz M.A., Rodriguez, V. And Taltavull P. (2009). Late life second move housing choices of international retiree migrants. *International Journal of Housing Markets and Analysis*. Vol.2, No.2. pp190-210
- Ismail, H., Aziz, F. & Wahab, A. M. (2019). The Elderly (Senior) Housing Options Preferences Among Malaysian Generations. IOP Conference Series: Earth and Environmental Science. ICCRMBEE2019. IOP Conf. Series: Earth and Environmental Science 385 (2019) 012039 IOP Publishing doi:10.1088/1755 1315/385/1/012039
- Ismail, H., Shaari, M. S. (2019). Housing decision: the choice between location, house and neighbourhood among malaysian generations. *MATEC Web of Conferences* 266 (6) (2019):01026. DOI: 10.1051/mateconf/201926601026
- Läidmäe, V., Tammsaar, K., Tulva, T. & Kasepalu. 2012. Quality of Life of Elderly in Estonia. *The Internet Journal of Geriatrics and Gerontology*. Vol 7. No 1, 2012
- Lim, C. K. (2012). *The changing needs of older Malaysians: a Selangor case study*. (Doctoral dissertation, Adelaide: University of Adelaide).
- Litwak, E. and Longino, C.F. Jr (1987), 'Migration patterns among the elderly: a developmental perspective', *Gerontologist*, Vol.27, No.3, pp. 266-72.

Longino, C.F. Jr, Jackson, D.A., Zimmerman, R .S. and Bradsher, J. E. (1991). The second move: health and geographic mobility'. *Journal of Gerontology: Social Sciences*, Vol. 46, pp. 191-213

Mathews, W.J. (2007) 'Housing the Aging Baby Boomer Generation: Implications for Georgia Communities'. Andrew Young School of Policy Studies, Georgia's Aging Population: What to Expect and How to Cope Conference. September 26, 2007. Georgia State University, Atlanta.

Mohd Tobi, S. U., Fathi, M. S., Amaratunga, D. (2017). Ageing in Place, an overview for the Elderly in Malaysia. AIP Conference Proceedings 1891, 020101 (2017); <https://doi.org/10.1063/1.5005434>

Phillips D.R and Chan A.C.M (2002), Ageing and Long Term Care, National Policies in the Asia Pacific. Asia Pacific Institute of Ageing Studies. Hong Kong.

Speare, A. and Meyer, J.W. (1988) 'Types of elderly residential mobility and their determinants'. *Journal of Gerontology*, Vol.43, No.3, pp.S74-81

Wang, D., & Li, S. (2006). Socio-economic differentials and stated housing preferences in Guangzhou, China, 30, 305–326. doi:10.1016/j.habitatint.2004.02.009

Warnes, A.M. (1992a) 'Age-related variation and temporal change in elderly migration', in Rogers, A. (Ed.), *Elderly Migration and Population Redistribution: Comparative Study*, Belhaven, London, pp.35-55

Weil, J. and Smith, E. (2016). Reevaluating aging in place: from traditional definitions to the continuum of care. *Working with Older People*, Vol. 20 Issue: 4, pp.223-230

World Health Organization (2011). *Global Health and Ageing*. www.nia.nih.gov/sites/default/files/global_health_and_aging.pdf

World Health Organization (2017) *Global strategy and action plan on ageing and health* <https://www.WorldHealthOrganization.int/ageing/global-strategy/en/>.

World Health Organization (WHO) (2007), *Global Age-Friendly Cities: A Guide*, Geneva, Switzerland, available at: www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf

World Health Organization. (2007). *Global age-friendly cities: a guide*. Geneva, Switzerland: WHO.