

**ASSESSMENT AND COMPARISON OF
THE HOUSING NEEDS AND ASPIRATIONS OF
URBAN AND RURAL ELDERLY IN MALAYSIA**

NOORAI SYILAH BINTI MURNI

**DISSERTATION SUBMITTED IN FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE (ESTATE MANAGEMENT)**

**FACULTY OF BUILT ENVIRONMENT
UNIVERSITY OF MALAYA
KUALA LUMPUR**

2017

UNIVERSITI MALAYA

ORIGINAL LITERARY WORK DECLARATION

Name of Candidate : **NOORAI SYILAH BINTI MURNI**

Registration/Matric : **BGD130007**

No. Name of Degree : **MASTER OF SCIENCE (ESTATE MANAGEMENT)**

Title of Dissertation ("this Work"):

ASSESSMENT AND COMPARISON OF THE HOUSING NEEDS AND ASPIRATIONS OF URBAN AND RURAL ELDERLY IN MALAYSIA

Field of Study: Housing & Settlements

I do solemnly and sincerely declare that:

- (1) I am the sole author/writer of this Work;
- (2) This Work is original
- (3) Any use of any work in which copyright exists was done by way of fair dealing and for permitted purposes and any excerpt or extract from, or reference to or reproduction of any copyright work has been disclosed expressly and sufficiently and the title of the Work and its authorship have been acknowledged in this Work;
- (4) I do not have any actual knowledge nor do I ought reasonably to know that the making of this work constitutes an infringement of any copyright work;
- (5) I hereby assign all and every rights in the copyright to this work to the University of Malaya ("UM"), who henceforth shall be owner of the copyright in this Work and that any reproduction or use in any form or by any means whatsoever is prohibited without the written consent of UM having been first had and obtained;
- (6) I am fully aware that if in the course of making this Work I have infringed any copyright whether intentionally or otherwise, I may be subject to legal action or any other action as may be determined by UM

Candidature's Signature

Date:

Subscribed and solemnly declared before,

Witness's Signature

Date:

Name:

Designation:

DISCLAIMER

This dissertation is submitted in fulfillment of the requirement for the award of the degree of Master of Science (Estate Management) by the University of Malaya. The Department of Estate Management, Faculty of Built Environment and the University of Malaya will not be held responsible for any claim from third party with regard to the production of this Dissertation.

April 2017

ABSTRACT

The ageing phenomenon in Malaysia is inevitable due to the exponential increase in the elderly population. Additionally, Malaysia is also experiencing rapid urban population growth. Due to the rapid pace of urbanisation and its impact towards the population, it becomes increasingly necessary to look into the effects of urbanisation towards elderly and their housing aspect. A careful evaluation of the needs of elderly is required to best prepare countries for the challenges and opportunities that the elderly population would be facing. Understanding the key issues surrounding the needs of Malaysia elderly community is crucial for reforming the existing policy and related elderly service provision framework. Thus, this study aims to examine the key issue relating to elderly housing in Malaysia. Specifically, it seeks to identify differences between housing needs of elderly living in urban and rural areas in Malaysia. This study uses the questionnaire survey, as its main tool to gather data. Stratified sampling based on age and ethnicity was used to obtain the data. The selected urban area for this study is Kuala Lumpur Federal Territory whereas, Kelantan rural area is selected as the rural area for this study. The main academic benefit of this research is to add insight into a new area of housing research i.e elderly urban-rural housing needs. As for practical contribution, this study offers policymakers a chance to explore more into the housing needs of elderly with respect to their urban-rural aspects. Findings from this study suggest that both the urban and rural elderly in Malaysia still consider the 'age-in-place' as their main housing options. Older age group of elderly indicates that they are less concern to move, regardless of whether they are urban or rural elderly. Results indicate that in terms of housing, the urban elderly needs safer kitchen and bathroom area. On a similar point, rural elderly emphasise on their need for the safer bathroom area. Contrastingly, rural

elderly seems to view that they need a safer staircase. Results also revealed that elderly living in the urban area need environments that are safer and are of better air quality. Whereas, elderly in the rural area indicates that they need cleaner environment. The finding suggests that adequate attention is given towards the safety of the urban elderly. With this finding, it is recommended that a policy is developed to promote ageing-in-place which considers attitudes, opinions and preferences of elderly in Malaysia.

University of Malaya

ABSTRAK

Fenomena penuaan di Malaysia adalah sesuatu yang tidak dapat dielakkan disebabkan oleh peningkatan pesat dalam populasi warga emas. Selain itu, Malaysia juga sedang mengalami pertumbuhan penduduk kawasan bandar yang sangat pesat. Oleh kerana kepesatan perbandaran dan kesannya terhadap populasi, ianya menjadi suatu keperluan bagi mengkaji kesan perbandaran terhadap warga emas dan aspek perumahan mereka. Suatu penilaian teliti terhadap keperluan warga emas adalah diperlukan bagi mempersiapkan negara dengan cabaran dan peluang yang datang bersama warga emas. Memahami isu-isu utama yang berkaitan dengan keperluan warga emas Malaysia adalah penting untuk pembaharuan dasar sedia ada dan penyediaan rangka kerja pekhidmatan buat warga emas. Oleh itu, kajian ini dijalankan dengan tujuan untuk mengkaji isu utama yang berkaitan dengan perumahan warga emas di Malaysia. Secara khususnya, ia bertujuan untuk mengenal pasti perbezaan antara keperluan perumahan warga emas di kawasan bandar dan luar bandar di Malaysia. Kajian ini menggunakan borang soal selidik sebagai alat utama untuk mengumpul data. Kaedah persampelan berstrata berdasarkan umur dan etnik telah digunakan bagi mengumpul data. Manakala, kawasan bandar yang terpilih untuk kajian ini adalah Wilayah Persekutuan Kuala Lumpur, manakala kawasan luar bandar Kelantan dipilih sebagai kawasan kajian luar bandar. Manfaat akademik utama kajian ini adalah menambah pemahaman tentang bidang baru penyelidikan perumahan iaitu keperluan perumahan warga emas bandar dan luar bandar. Bagi sumbangan praktikal, kajian ini membolehkan mereka yang membuat dan merangka dasar negara, untuk lebih mengetahui keperluan perumahan warga emas dari aspek bandar dan luar bandar. Hasil daripada kajian ini menunjukkan bahawa warga emas di bandar dan juga luar bandar masih menginginkan dan memilih untuk “age-in-place” sebagai pilihan pertama mereka. Golongan warga emas yang lebih tua, sama ada

di bandar dan luar bandar menunjukkan bahawa mereka memilih untuk tidak berpindah. Kajian menunjukkan bahawa dari segi perumahan, warga emas bandar memerlukan dapur dan kawasan bilik air yang lebih selamat. Manakala, warga emas luar bandar merekodkan bahawa mereka lebih memerlukan tangga yang lebih selamat. Hasil kajian juga menunjukkan bahawa hidup warga emas di kawasan luar bandar memerlukan persekitaran yang lebih selamat dan kualiti udara yang lebih baik. Manakala, warga emas di luar bandar menunjukkan bahawa mereka memerlukan persekitaran yang lebih bersih. Dapatan kajian menunjukkan bahawa perhatian secukupnya hendaklah diberikan berkenaan dengan keselamatan warga emas di bandar. Dengan penemuan ini, adalah disyorkan bahawa dasar yang dibangunkan hendaklah mengalakkan “ageing-in-place” serta menitikberatkan sikap, pendapat dan pilihan warga emas sama ada di bandar mahupun luar bandar Malaysia.

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious, the Most Merciful.

First and foremost, I would like to take this opportunity to express my deepest gratitude to my family, especially my parents who had always been there for me. Cheers to my brother, sister and Mak Uang. Besides that, I would also want to thank Farah, Nadiya, and Nora who had effortlessly helped, encouraged and reminded me to never give up. Additionally, thank you to my dedicated supervisors Associate Prof. Dr. Sr Wan Nor Azriyati Binti Wan Abd Aziz and Dr. Sr Ainoriza Binti Mohd Aini for their valuable guidance and comments. Their constructive comments, valuable advices and effort in patiently reading through the draft reports are much appreciated.

Lastly, thank you to all the respondents as they were willing to spend their time in answering the questionnaire survey. All in all, I would like to express my gratitude to all who had willingly share knowledge, idea and contribute towards the completion of this thesis.

Thank You.

TABLE OF CONTENT

ABSTRACT	iii
ABSTRAK	v
ACKNOWLEDGEMENTS	vii
TABLE OF CONTENT	viii
LIST OF TABLE	xii
LIST OF FIGURES	xiv
LIST OF ABBREVIATIONS	xv
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Research Background	1
1.3 Research Problem	4
1.4 Research Aim and Research Questions	6
1.5 Research Objectives	7
1.6 Scope of Research	7
1.7 Research Methodology	8
1.8 Structure of the Study	9
1.9 Summary	10
CHAPTER 2: LITERATURE REVIEW	11
2.1 Introduction	11
2.2 The General Overview of Elderly	11
2.2.1 The Ageing Process	14
2.3 Housing in General	15
2.3.1 The Housing Model for the Elderly	18
2.3.2 Maslow Theory Model	20
2.4 Needs and Housing Needs: Theory and Past Research	22
2.4.1 Differentiating Housing Need, Condition and Aspiration	24
2.4.2 The Housing Needs Dimensions and Categories	26
2.4.3 Adopted Housing Needs Framework	28
2.5 International Elderly Policy and Plan	33
2.5.1 The United Nations Principles for Older Persons	33
2.5.2 Madrid International Plan of Action on Ageing	34
	viii

2.6	Elderly Housing Insights from Other Asian Country	36
2.6.1	Japan	37
2.6.2	Singapore	38
2.6.3	Hong Kong (HK)	41
2.6.4	South Korea	44
2.6.5	Main Highlights on the Best Practice of Elderly Housing Insights	46
2.7	Housing and Living Options	47
2.7.1	Family Home (Ageing in Place)	48
2.7.2	Nursing and Care Homes	49
2.7.3	Retirement Village	50
2.8	Highlights on the Urban-Rural Significance	51
2.9	Summary	53
CHAPTER 3: ELDERLY IN MALAYSIA		54
3.1	Introduction	54
3.2	Population Trends and Characteristics of Malaysian Elderly	54
3.2.1	Education	56
3.2.2	Income and Workforce Participation	57
3.2.3	Living Arrangement	57
3.2.4	Gender and Ethnicity	58
3.2.5	Health and Life Expectancy	58
3.3	Policy and Programs	59
3.3.1	National Housing Policy	59
3.3.2	National Policy and Plan of Action for Older Persons	60
3.3.3	Physical Planning Guideline for the Elderly (Garis Panduan Perancangan Fizikal Bagi Warga Emas)	61
3.4	Housing Policy and the Malaysian Elderly	62
3.5	Care Arrangement for the Malaysian Elderly	64
3.5.1	Informal Care Arrangement	65
3.5.2	Formal Care Arrangement	66
3.6	Housing and Living Options for the Malaysian Elderly	68
3.6.1	Family Home (Ageing in Place)	68
3.6.2	Elderly Care Institutions	69
3.6.3	Retirement Village	71
3.7	The Future Housing Direction for Elderly in Malaysia	73
3.8	Summary	76

CHAPTER 4: CASE STUDY AREAS (FEDERAL TERRITORY OF KUALA LUMPUR AND KELANTAN)	77
4.1 Introduction	77
4.2 Background on Malaysia	77
4.3 The Urban-Rural Context in Malaysia	81
4.4 Federal Territory of Kuala Lumpur	85
4.5 Kelantan	87
4.6 Summary	91
 CHAPTER 5: RESEARCH METHODOLOGY	 92
5.1 Introduction	92
5.2 Research Approach	92
5.3 Research Design	93
5.4 Data Sampling and Data Collection	96
5.5 Questionnaire Survey	101
5.5.1 Pilot Survey	104
5.5.2 Actual Survey	104
5.6 Approach to Data Analysis	105
5.6.1 Reliability Test	105
5.6.2 Descriptive Statistical Analysis	106
5.6.3 Crosstab	106
5.6.4 Mann-Whitney U Test	107
5.7 Validity of Research	107
5.8 Ethical Considerations	107
5.9 Limitations	108
5.10 Summary	110
 CHAPTER 6: RESEARCH METHODOLOGY	 111
6.1 Introduction	111
6.2 The Socio-Demographic Profile of Respondents	111
6.2.1 General Background of Respondents	111
6.3 To What Extent Does the Housing Needs Differs Between Elderly Living in Urban and Rural Areas?	118
6.3.1 Descriptive Analysis of Elderly Housing Needs Variables	118
6.3.2 Mann-Whitney U Test	129
6.3.3 Reliability Test Using Cronbach's Alpha	133
6.3.4 Difference Between Urban-Rural Area, in terms of Essential Areas in a House	134

6.4	What is the Aspiration of Urban and Rural Elderly, in terms of Housing in the Future?	137
6.4.1	Consideration to Move in the Future	137
6.4.2	Reason to Move	145
6.4.3	Plan for Current House	148
6.4.4	Type of House to Buy in Future	149
6.4.5	Location of House to Buy in Future	154
6.5	Summary	168
CHAPTER 7: DISCUSSION AND CONCLUSION		170
7.1	Introduction	170
7.2	Summary and Discussion of Major Findings	170
7.2.1	Research Objective One: To Examine the Housing Options Available for the Malaysian Elderly	171
7.2.2	Research Objective Two: To Differentiate the Housing Needs of Elderly Living in Urban and Rural Area	173
7.2.3	Research Objective Three: To Compare the Aspiration of Urban and Rural Elderly, in terms of Housing in the Future	176
7.3	Contribution of Research	180
7.4	Recommendation for Future Study	181
7.5	Conclusion	182
REFERENCES		184
APPENDIX A: QUESTIONNAIRE		200

LIST OF TABLE

Table	Title	Page
Table 2.1	Elderly-specific housing needs	27
Table 4.1	Malaysia's mean monthly household income by strata	80
Table 4.2	Age group for Malaysia's and Federal Territory of Kuala Lumpur's population, 2000 and 2010	87
Table 4.3	Age group for Malaysia's and Kelantan's population, 2000 and 2010	88
Table 4.4	Covered rural study area (Kelantan)	90
Table 5.1	Research technique and outcomes	95
Table 5.2	Determining sample size	97
Table 6.1	General background of respondents	112
Table 6.2	Education level and income of respondent	113
Table 6.3	Housing safety variables	119
Table 6.4	Housing adequateness of size variables	121
Table 6.5	Housing living environments variables	123
Table 6.6	Facilities variables	125
Table 6.7	Housing environments variables	127
Table 6.8	Mann-Whitney U Test (respondent general info)	129
Table 6.9	Mann-Whitney U Test (housing safety)	130
Table 6.10	Mann-Whitney U Test (housing size)	131
Table 6.11	Mann-Whitney U Test (housing living environments variables)	131
Table 6.12	Mann-Whitney U Test (facilities variables)	132
Table 6.13	Mann-Whitney U Test (housing environments variables)	132
Table 6.14	Cronbach's Alpha result analysis	133
Table 6.15	Differences of urban and rural area in terms of number of bedrooms and bathroom	134
Table 6.16	Differences of the urban and rural area in terms of flooring of bedrooms, bathroom and kitchen area.	136
Table 6.17	Relationship between the variable "considering to move" with the age group, gender, ethnic and marital status	139
Table 6.18	Relationship between the variable "considering to move" with education level	141
Table 6.19	Relationship between the variable "considering to move" with working category and household income	142
Table 6.20	Relationship between the variable "considering to move" with living arrangement	143
Table 6.21	Relationship between the "considering to move" with housing variable	144
Table 6.22	Relationship between the reason to move with the age group, gender and marital status of respondents	147
Table 6.23	Relationship between the variable "type of house plans to buy in future" with the age group, gender and marital status of respondents	150

Table 6.24	Relationship between the variable “type of house plans to buy in future” with the working category and household net income of respondents	151
Table 6.25	Relationship between the variable “type of house plan to buy in future” with the type of current house	153
Table 6.26	Factors affecting the elderly need to live close to good public transportation (a)	155
Table 6.27	Factors affecting elderly need to live close to public transportation (b)	158
Table 6.28	Factors affecting the elderly need to live close to children (a)	159
Table 6.29	Factors affecting the elderly need to live close to children (b)	161
Table 6.30	Factors affecting the elderly need to live close to relatives and friend (a)	163
Table 6.31	Factors affecting the elderly need to live close to relatives and friend (b)	164
Table 6.32	Factors affecting the elderly need to have another appropriate house that suits their age (a)	166
Table 6.33	Factors affecting the elderly need to have another appropriate house that suits their age (b)	167
Table 7.1	Comparison between housing aspiration of elderly in urban and rural area	177

LIST OF FIGURES

Figure	Title	Page
Figure 2.1	Stages in demographic transition of ageing population	13
Figure 2.2	Golini's conceptual framework on the ageing process	15
Figure 2.3	Housing model	18
Figure 2.4	Maslow Theory Model	21
Figure 2.5	Differences between housing need, condition and aspiration	24
Figure 2.6	Housing needs criteria	26
Figure 2.7	Elderly housing needs framework	28
Figure 2.8	Best practice highlights in handling elderly housing needs issue	46
Figure 3.1	Malaysia population 1970-2020	55
Figure 3.2	Malaysia population pyramid, 2010 and 2040	56
Figure 3.3	Future housing direction of the elderly housing needs issue	74
Figure 4.1	Map of Malaysia	78
Figure 4.2	Structure of production 1980-2014	79
Figure 4.3	Gini coefficients by strata 2009 and 2012	80
Figure 4.4	Urbanisation rate in Peninsular Malaysia (1911-2010)	82
Figure 4.5	Malaysia's urban growth	82
Figure 4.6	Urbanisation rate by state in Malaysia, 2010	84
Figure 4.7	Map of federal territory of Kuala Lumpur	85
Figure 4.8	The Map of Kelantan	89
Figure 5.1	Research design process	94
Figure 5.2	The 3 stage of life	99
Figure 6.1	Living arrangement of respondent	115
Figure 6.2	Ownership of house	116
Figure 6.3	Design of house	116
Figure 6.4	Type of current house	117
Figure 6.5	Housing safety variables (urban)	120
Figure 6.6	Housing safety variables (rural)	120
Figure 6.7	Housing adequateness of size variables (urban)	122
Figure 6.8	Housing adequateness of size variables (rural)	122
Figure 6.9	Housing living environments variables (urban)	124
Figure 6.10	Housing living environments variables (rural)	124
Figure 6.11	Facilities variables (urban)	126
Figure 6.12	Facilities variables (rural)	126
Figure 6.13	Housing environments variables (urban)	128
Figure 6.14	Housing environments variables (rural)	128
Figure 6.15	Consideration to move in future	138
Figure 6.16	Respondents' reason to move	145
Figure 6.17	Location of house to buy in future	146
Figure 6.18	Plan for current house	148
Figure 6.19	Type of house plan to buy in the future	149
Figure 6.20	Location of house plan to buy in future	154
Figure 7.1	Similarities and differences between housing needs of the elderly living in urban and rural area	174

LIST OF ABBREVIATIONS

MHLG	Ministry of Housing and Local Government
MIPAA	Madrid International Plan of Action on Ageing
MWFCD	Ministry of Women, Family and Community Development
nCHfE	Nursing Care Home for the Elderly
NGO	Non-governmental Organisation
NHP	National Housing Policy
PPGE	Physical Planning Guidelines for the Elderly
RCHfE	Residential Care Home for the Elderly
SPSS	Statistical Package for Social Science
TCPD	Town and Country Planning Department
UN	United Nations

CHAPTER 1: INTRODUCTION

1.1 Introduction

The ageing phenomenon is a universal phenomenon which occurs as a result of a significant rapid increase in elderly population within the community. The significant increase in elderly population is not a new phenomenon as this category of the population has been growing for centuries. What is new, as observed by demographers, is the rapid pace of the increase, which makes us all now live in an ageing world (Ahmad and Ismail, 2011). The impact is becoming more significant as the life expectancy is rising rapidly. The major effect of the increase in number of elderly includes health aspect, the social aspect and more importantly, in terms of their housing aspect.

Housing is a human's basic need that Maslow explained in the "Hierarchy of Needs" as an important level of needs which is similar to food and drink and thus is at the centre of wellbeing (Manitoba, 2012; Hossain, 2012). Everyone have the right to have access to and live in a house that suits their needs (Baqtayan et al., 2015). Therefore, nonetheless of their age, elderly also have rights to suitable housing condition and should be provided with suitable housing and living environment. Greater challenge in terms of providing housing for the elderly is inevitable, thus preparing for it is a must for developing country like Malaysia. As such, this study sets out to explore the key issue relating to elderly housing in Malaysia. Specifically, it seeks to identify differences between housing needs of elderly living in urban and rural areas in Malaysia.

1.2 Research Background

Preparing for future housing needs of the elderly is crucial especially for countries

where elderly population is increasing significantly. There is a vague definition on the definite age of the elderly. It is often associated with retirement age. A report by the United Nations, described that the age of 60 is the age of elderly. Additionally, the World Health Organization (WHO) defined elderly as people who are aged 65 years old and above.

Different study on elderly housing however, is recorded to adopt different age group and is perceived to be research objective's dependant. Different researchers studying into the urban-rural aspect of elderly (Marcellini et al., 2007; Yusnani, 2005; Wahl and Oswald, 2010) had been seen to adopt different age group, according to their respective study. For the purpose of this study, the age of 50 years and above is defined as elderly. A study conducted by Angelini (2012) on elderly with regards to residential mobility, also adopted the cut-off point of 50 years and above.

Shannon (2010) explained that the elderly group is a special population with distinctive housing needs. Tinker and Ribe (2013) highlighted that the elderly views of what is appropriate housing, what are their housing needs and aspiration can change gradually with time and will undoubtedly continue so. This view is supported by Pastalan (2014) who argues that developing the suitable and perfect housing for elderly is difficult since their circumstances, situations and housing needs vary greatly and constantly changes over time.

Planning for the elderly housing is quite a challenge and in order to do this successfully, knowledge about the housing preferences of the different actors is crucial (Abramsson and Andersson, 2014). Appropriate housing in terms of fulfilling physical needs helps to determine to a great extent the well-being of the elderly (Tatsiramos, 2006). Heywood (2004) in his study entitled "Understanding Needs: A Starting Point for Quality"

elucidated the importance of paying attention and resolving the housing needs both disabled people and an elderly group of people.

The experiences of elderly are diverse, thus understanding the diversity require an expanded consideration of elderly in various context (Keating, 2008). The location of elderly, in terms of rural and urban area, can be one of the contexts. Currently, there are a few researchers that link gerontology with the environmental and geographical/spatial elements (Golant, 2012; Andrews et al., 2009; Keating, 2008; Cutchin, 2009, Wahl and Oswald, 2010). Keating (2008) for instance, is seen to highlight the significance of the space element, in terms of the rural area. Stiff housing competition, high noise pollution, bad traffic congestion, skyrocket maintenance costs as well as other difficulties, have brought an increase of tendency among elderly to opt to return and settle down in a rural area.

Rural areas are often depicted as a problem-free and idyllic housing environment which provide highly value strong social ties and practice a slower way of life; however, the reality can be somewhat different (Heenan, 2010). In connection to this, the rural areas are also often linked with poor transportation services, lack of housing facilities and elderly related health facilities. It is statistically proven that the number of elderly residing in rural areas outnumbered those living in the urban area (Department of Statistics Malaysia, 2012). High crime rates in the urban neighbourhoods may also contribute to feelings of insecurity in most elderly (Smith, 2009).

O'Shea (2009) posited that it is particularly important to ensure that elderly have the proper access to social activities, services as well as facilities. Winterton and Warburton (2012) further added that elderly residing in the rural area face difficulties in terms of mobility, age-related change with health, poor infrastructure, access to services and

goods. Here, it is clear that elderly in rural area faces a certain degree of difficulties which may affect their level of satisfaction towards their housing.

In contrary to that, Wenger and Keating (2008) held strong to the opinion that growing old in rural areas has its own pros and cons, and is neither consistently better nor worse than elderly in urban areas. Keating (2008), addressing the question of whether rural areas are a good place to grow old, notes that the answer depends on the person's place in the life course, on the community in which they live and on the way in which they construct their relationships to people and place. Different scholar, as we can see have a different opinion with regards to the pros and cons of living in the urban-rural area.

In sum, the urban-rural distinction may provide some helpful hints or clue on how modernity and globalisation can affect the elderly (Wahl and Oswald, 2010). This basic distinction may also provide an insight on how the spatial element, in terms of urban and rural area, really matters (Keating, 2008). As the aged population increases, concerns on the housing needs of elderly also becomes a significant issue that needs further exploration. Since most of those studies are conducted overseas, it is also very hard to ascertain what are the actual similarities and differences of elderly growing old in Malaysia's urban and rural area. Therefore, this highlights the reason why this study is conducted.

1.3 Research Problem

A careful evaluation of the needs of elderly is required to best prepare countries with the challenges and opportunities that the elderly population brings (Lim, 2012). Lim (2012) further explained that understanding the key issues surrounding the needs of Malaysia elderly community is crucial for reforming the existing policy and related elderly service provision framework. The fact that Malaysia is a multiracial country and the

complexity of aged care service delivery makes it even more implicitly crucial for a careful and thorough assessment to be done in order to meet the needs and expectations of the current and future elderly community.

Nevertheless, very few of these studies have explored direct housing need comparisons between rural and urban seniors. Thus, we address the void in the existing literature. The only study did relating to this context, however, focused more on the customs precursors of the Malaysian community. There is a need to look more in depth in terms of the housing aspect of the Malaysian elderly needs. Yusnani (2005) studied into the effect of urban and rural towards the future accommodation of elderly. The study explained how changes in terms of urban and rural elderly concentration may have significant and important consequences towards accommodating the elderly themselves and towards the nation as a whole. Likewise, it looked into the urban-rural and elderly aspect, however, the study focused more on the cultural aspect of the respondents. Contrastingly, the overall aim of this study focuses more on the aspects that may have an impact upon the housing needs of the elderly.

Many researchers had a look into the urban-rural aspect of elderly (Marcellini et al., 2007; Yusnani, 2005; Wahl 2010), however, few had made the housing need aspect as their main study focus. Elderly have a diverse range of aspirations and needs in relation to their housing (Bevan, 2009). The first step in responding to future aspirations and needs of elderly is by assessing their needs and aspirations. Thus, present study attempts to analyse the current housing needs and housing aspirations of the elderly, in two (2) different locations of urban and rural areas in Malaysia. It is important to determine and assess the housing needs of the elderly group as the proper realisation of this is significant in the effort of providing better housing quality and environment for the current and future elderly community.

1.4 Research Aim and Research Questions

The basic needs of people have to be properly understood, prior to being able to come up with a good quality housing (Heywood, 2004). Treffers (2004) elucidated that it is of the utmost important to design space and house for all means of the society, including the ageing and elderly people. Appropriate housing in terms fulfilling physical needs helps to determine to a great extent the well-being of the elderly (Tatsiramos, 2006). Preparing for the future housing needs of the elderly is a long term plan and needs a proper pre-assessment and planning. Additionally, the experiences of elderly are diverse. Thus, understanding the diversity requires an expanded consideration of elderly in various contexts (Keating, 2008) and studying the urban-rural aspect can be one of the various contexts.

Besides that, it is vital to ensure that current policies, program and services regulated are fulfilling the needs of elderly society (Hamid et al., 2012). However, prior to being able to come up with such policies, program and services that fulfil the needs of the elderly, the needs of the elderly must first be properly identified and assessed. Lim et al. (2012) who study the changing needs of older Malaysians further supports the fact that Malaysia needs a careful evaluation on the needs of the elderly in Malaysia. Thus, this study looks further into the housing need aspects of the urban and rural elderly in Malaysia and three elements that needed to be studied had been identified. The three elements to be studied are the housing needs, the future housing aspirations and the current housing options available for the elderly in Malaysia.

This study aims to examine the key issue relating to elderly housing in Malaysia. Specifically, it seeks to identify differences between housing needs of elderly living in urban and rural areas in Malaysia. Thus, three key research questions are as follows:

1. What are the housing options available for the Malaysian elderly?
2. To what extent do the housing needs differs between elderly living in the urban and rural area?
3. What is the aspiration of urban and rural elderly, in terms of housing in the future?

1.5 Research Objectives

The identified research objectives for this research are as following:

1. To examine the housing options available for the Malaysian elderly
2. To differentiate the housing needs of elderly living in urban and rural area
3. To compare the aspiration of urban and rural elderly, in terms of housing in the future

1.6 Scope of Research

This study attempts to differentiate the housing needs of elderly living in the urban and rural area. Besides that, this study also attempts to compare the aspiration of urban and rural elderly housing, in terms of housing type and housing specification. The significance of studying this problem is seen through the lack of elderly housing provision in Malaysia. Furthermore, there is a need for proper planning in terms of elderly housing provisions to prepare the whole Malaysia, in facing the ageing problem.

The scope of this study focuses on elderly between the age 50 years and above. According to United Nations in National Policy of Older Person (2011), it is forecasted that Malaysia will be an Ageing Nation by 2030, with elderly population 15% from total population. Malaysia adopted the cut-off point of 60 years old and above to define elderly. However, considering our nation is predicted to be an ageing nation in 10 - 15 years to come, this study has defined elderly to include the population of the age of 50

years old in order to cater for those who would be considered elderly within 10 years to come.

Additionally, several researchers had indicated that 50 years is the early old-age life transition and is the stage of self-realisation and actualisation (Barett et al., 2011, Hasegawa et al., 2011). Similarly, a research on the urban and rural elderly future accommodation conducted by Yusnani (2006) also adopted the target respondents of the age 50 years and above. The reason behind this is to forecast and help prepare Malaysia for the upcoming ageing phenomena. Ample time to prepare is essential in preparing the suitable policy, action plan and guideline as the delay in development process can occur due to various factors (Ahmad and Ismail, 2011). Hence this rationalise the selection of elderly starting from the age of 50 years and above.

Accordingly, this study adopts Kuala Lumpur and Kelantan in Malaysia as study area due to the fact that Kuala Lumpur had achieved 100% urbanisation level and Kelantan ranks lowest in urbanisation level in Malaysia (Malaysia Statistics Department, 2012).

1.7 Research Methodology

For the purpose of this study, Federal Territory of Kuala Lumpur represents the urban area and Kelantan represents the rural area. Kelantan was chosen as the rural study area, mainly due to the fact that the state of Kelantan displays the lowest urbanisation level (with a percentage of 42.4%) in Malaysia (Malaysian Statistical Department, 2010), whilst the Federal Territory of Kuala Lumpur was chosen as the urban study area as it has reached the 100 percent level of urbanisation, which makes it suitable as the selection of urban are in Malaysia (Malaysian Statistical Department, 2010).

The research was based on a face-to-face survey carried out between January and June 2014 at study locations. A stratified sampling based on age, ethnicity and strata (urban-

rural) was used to obtain the samples. The total sample size of 384 (192 urban and 192 rural) was determined using the Minimum Adequate Sample Size Formula (Krejcie and Morgan, 1970). The data were analysed in two phases. The first phase is for the data collected from KL and the second phase is data collected from the rural area. Finally, the findings were discussed and concluded. From the discussions and conclusion, the research aim was reached and the research questions are answered.

1.8 Structure of the Study

The thesis comprises of seven (7) chapters. Chapter one presents an overview of the housing need for elderly. This led to the statement of the research problem. This chapter also discusses the research questions, research aim, research objectives, scope of research and also a brief explanation of the research methodology.

Chapter two discusses the definitions, concepts and theories of housing and housing need among elderly. In this chapter, the problem of housing need for elderly is conceptualised. The chapter starts by giving an overview of the elderly. Later on, the chapter discusses the differences between housing need, condition and aspiration, as well as housing need's categories and factors influencing them. In addition, this chapter also provides the housing insights and scenario of the elderly living throughout the world. Lastly, this chapter also provides some useful highlights on the urban-rural significance.

Chapter three focuses on the scope of research in Malaysia. This chapter aims to give further understanding on the current situation and related trends of the elderly in the study area. The Malaysia's elderly trends, elderly housing policy, as well as available housing options for the Malaysian elderly is further explained in Chapter three.

Chapter four specifically explains on the chosen research area in Malaysia. The background of Malaysia and study area is being detailed out in this chapter. Kuala Lumpur (KL) as the chosen urban area and Kelantan as the chosen rural area.

Chapter five discusses in great detail the research methodology adopted for s study. Chapter five explains the method of data collection which includes sampling, criteria of respondent's selection. Besides that, approach to data analysis, ethical considerations upon conducting study as well as limitations faced throughout the study were also elaborated in this chapter.

Chapter six is the chapter where findings and data analysis is laid out. This chapter presents the analysis of the empirical evidence. Lastly, Chapter seven is the discussion and recommendation chapter. Chapter seven summarise the relation of research objectives and the findings from chapter six. This will eventually lead to answer the research questions in this study and provides conclusion to the study.

1.9 Summary

This chapter explained that it is vital to prolong the study on elderly housing needs as their number is projected to grow year by year. The impact is becoming more significant as the life expectancy is rising rapidly. Therefore, careful evaluation of the needs of elderly is required to best prepare countries with the challenges and opportunities that the elderly population brings. This study explores and focuses more on the housing need comparisons between rural and urban seniors, as very few researches had been conducted with regards to this topic. The next chapter shall discuss more extensively on the definition of elderly, ageing process, housing, housing needs as well as the framework adopted in this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter aims to provide a framework of this study in order to answer the research questions. In order to provide general understanding on the research, this chapter begins by explaining the terminology of elderly and housing. Furthermore, this chapter also discusses on the needs and housing needs. It then proceeds to examine the available international elderly policy and plan as well as providing the elderly housing insights from other countries. In the last section of this chapter, housing and living options of elderly as well as the urban-rural significance is being highlighted.

2.2 The General Overview of Elderly

When people aged they move from a younger social group to an older social group. Ageism can be defined as a systematic process of discriminating and stereotyping of people because they are old and it is a widespread phenomenon (Bodner et al., 2011). The United Nations (UN) defined elderly as those people of age 60 years and above. Similarly, the World Health Organisation (2012) was seen to classify people of the age 60-65 years old and above, as elderly people.

United Nations (2013) estimated that globally there are around 841 million elderly in the year of 2013. This number is projected to grow to nearly 2 billion by 2050, at which time it will be as large as the population of children (0-14 years). It is projected that in the future, the number of elderly people will exceed the number of children and this historic crossover will occur for the first time in the year of 2047. Additionally, a country is declared as an ageing nation when the population of the elderly in that country is dominated by 15% of elderly from its total population.

Population trends showed that the percentage of elderly is higher in the more developed regions, compared to the less developed regions (United Nation, 2002). This was further proven to be true as the proportion of elderly 60 years and above, in the more developed regions was 12 percent in 1950, rose to 23 percent in 2013 and is expected to reach 32 percent by 2050 (United Nations, 2013). In the less developed regions, the proportion of elderly increased slowly between 1950 and 2013, from 6 per cent to 9 per cent; however, the increase in the proportion of elderly is expected to accelerate in the coming decades, reaching 19 percent in 2050. The significant increase in elderly of the population is not a new phenomenon. This category of the population has been growing for centuries. What is new, as observed by demographers, is the rapid pace of the increase, which makes us all now live in an ageing world (Ahmad and Ismail, 2011).

Ageing can also be defined as a dynamic process, determined by the relative size of the younger and older cohorts in the population at different moments in time. The initial size of each cohort depends on the population in childbearing ages at a certain point in time, and the prevalent fertility rates. In trying to understand this issue, the keynote that we need to understand is that the faster the speed of fertility decline, the more rapidly ageing will take place (United Nations, 2013). The second major thing that contributed to the ever so increase in elderly population is the extension of a person's average life span.

Ahmad and Ismail (2011) listed four stages in the demographic transition brought about the ageing of the population, as being shown in Figure 2.1. Ahmad and Ismail (2011) further clarified that when the less developed nations begin to be industrialising, the fertility and mortality rate starts to decline, and as a consequence, the elderly population increases.

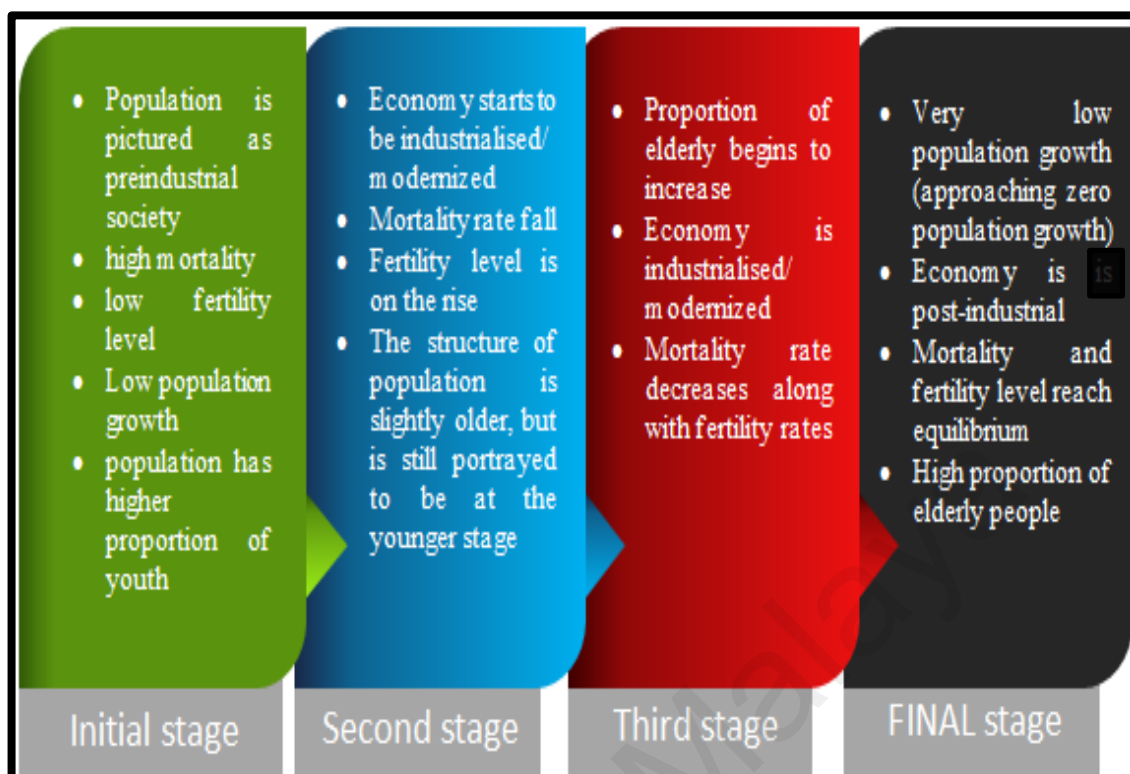


Figure 2.1: Stages in demographic transition of ageing population

Source: Adapted from Ahmad and Ismail (2011)

Divergently, according to Hermalin and Myers (2002) and Ahmad and Ismail (2011), there are two types of ageing; population ageing and individual ageing. Individual ageing is a process where a person ages from their time of birth up to the moment of death and it is a continuous process. By contrast, the population ageing, is defined as the increasing proportion of older person (aged 60 years and older) in the total population. The population can become younger or older depending on the changes of the proportion of older person in the total population. Population ageing also refers to the alterations in the age structure of a population, which results in increasing proportions of the population at older ages, and consequently decreasing proportions at younger ages.

Thus, it can be concluded that elderly issue is emerging in the context of globalisation, and is in itself stimulating the flow of human and economic capital across national

boundaries as a result of the emerging demographic imbalances arising from the differential movement of regions into maturity. Therefore, it is necessary to fully understand the dynamics of global elderly, as a component of globalisation, addressing it at the global institutional, societal-institutional and individual levels. At the societal level, demographic change will clearly have significant implications for labour supply, family and household structure, health and welfare service demand, patterns of saving and consumption, provision of housing and transport, leisure and community behaviour, networks and social interaction.

2.2.1 The Ageing Process

In an instrumental study on the ageing process, Golini (2006) provided a conceptual framework that explicitly described the dynamics and consequences of such a process. Using the framework, Golini listed out the determinants of ageing, the factors in ageing process as well as the consequences of the ageing process, which is being shown in Figure 2.2.

Several researchers had suggested that lower level of fertility rate and lower level of mortality rate will eventually lead to the ageing at the individual level, family level and ageing of the populations (Yin-Fah et al., 2010; Willcox et al., 2012). According to Wan Ibrahim et al. (2012), the ageing process can be further classified into micro (ageing of individual and household) and macro level (ageing of the population).

Another essential point that Gollini elaborated is on the consequences of the increasing number of elderly and its effects. Few related study conducted relating to elderly had proven that increased number of elderly had effects upon the population, psychology, culture, ethics, society, economy, education, health, family, environment, policy as well as international relations of the population (Golini, 2006; Willcox et al., 2012; Wan

Ibrahim et al., 2012; Doris et al., 2012; Lim, 2012; Paik and Choi, 2005; Chung and Park, 2008; Masud et al., 2008; Tohit et al., 2012). Lastly, the framework further stated that policies can be used as a way of controlling the consequences listed. This point is very important to be highlighted because this is the point where the government should play their role.

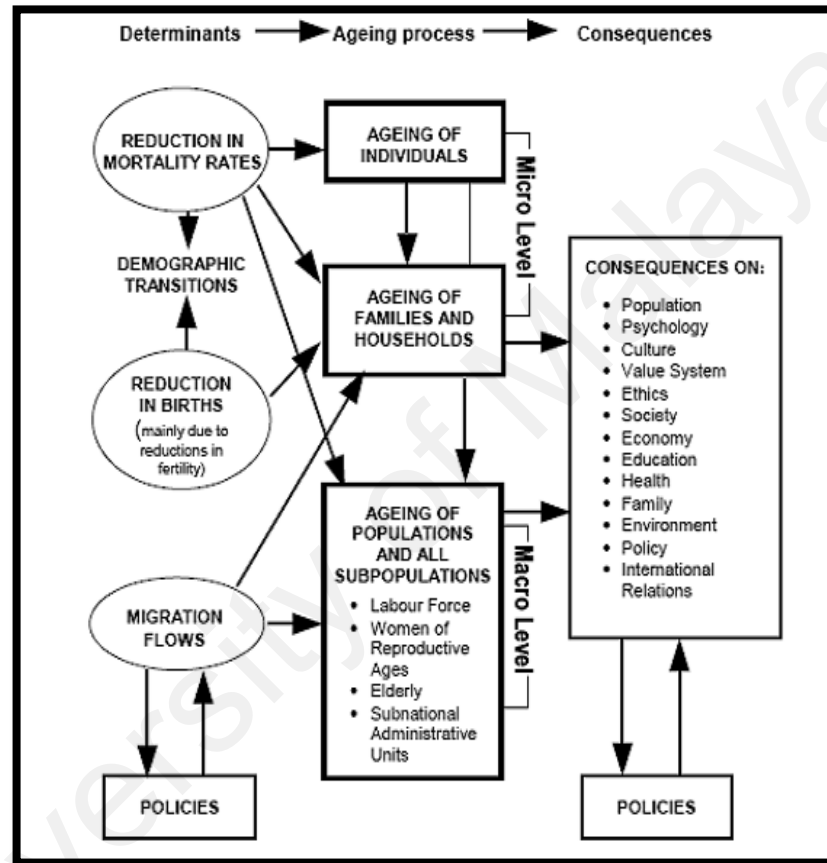


Figure 2.2: Golini's conceptual framework on the ageing process

Source: Golini (2006, p. 7)

2.3 Housing in General

Literally, housing has ambiguous meaning, however, in general, it represents a positive meaning (Parsell, 2012). Cristoforetti et al. (2011) argued that house symbolises the passage from the external world to the internal world and from the private space to a more public space. Cristoforetti et al. (2011) further explained that house is a place of

safety and to take shelter, which also acquires the meaning of relaxation and freedom, of detachment from the community. Housing plays an important role in people's well-being, contributing to the physical and psychological health, safety and security outcomes, and love and belongingness need (Baqutayan et al., 2015).

Human Rights Education Associates (2011) suggested that housing fulfils the physical, psychological, social and maybe even the economic needs of a person. For instance, housing fulfils the physical needs of a person by providing security and shelter. Furthermore, housing fulfils the psychological needs of a person by providing them a sense of personal space privacy. A simple illustration of this situation is that the bedroom, as well as toilets in a house, provides its owner with a sense of personal space privacy. Indeed, our house can be symbolised as a space where independence, freedom and security are expected. The sense of freedom, security, as well as independence, is expected from a place called the house. On a similarly practical level, the physical structure of a house gives people a space to be comfortable and a space where they can bring a sense of order to their lives (Wiles et al., 2009; Carroll et al., 2009).

O'Sullivan (2009) concluded that housing is different from other goods and is a unique commodity. According to him, there are 6 features that make housing unique; heterogeneous, immobile, durable, expensive, high moving costs and finally the fact that people care about the racial and ethnic background of their neighbours.

According to the United Nations Human Settlements Programme, housing is an integral element of a nation's economy. Its backward and forward linkages with other parts of the economy closely bond people's needs, demands and social processes with the supply of land, infrastructure, building materials, technology, labour, and housing finance. Housing is an essential element in our lives and community, as it is not only a

shelter but also act as a link to the neighbourhood and larger community (UN-Habitat, 2011).

Tan (2012) highlighted that among the things needed to be considered when we are talking about the subject of housing, is location, neighbourhood attributes, structural attributes as well as the demographic characteristics of respondents. The location attributes of the housing include the inclusion of retail area, availability of school, transport, workplace, as well as the recreation. In terms of the neighbourhood attributes, among the factors considered are the pollution, crime, cleanliness as well as the guarding and security of the neighbourhood. On the other hand, in terms of the structural attributes, the factors considered include the structural bathroom, bedroom, living, kitchen and built-up area. Last but not least, demographic of respondents include gender, age, marital status and so on.

The term housing is a universal word and people worldwide have their own definition on housing. In brief, the housing can be referred to as central to the needs of all people, socially and economically (Byrne, 2015). In the Malaysian context, the word housing is integrated with the word “housing accommodation”. Housing accommodation as interpreted under part 1, section 3, Housing Development (Control and Licensing) Act 1966 (Act 118) and Regulations is “including any building, tenement or messuage which is wholly or principally constructed, adapted or intended for human habitation, or, partly for human habitation and partly for business premises, but does not include an accommodation erected on any land designated for or approved for commercial development”.

Additionally, the United Nations also come up seven aspects that form the integral component of each and every human right to access adequate housing. The seven

aspects include; tenure's legal and security, services availability, accessibility, material, affordability, facilities and infrastructure, habitability, location, cultural adequacy.

2.3.1 The Housing Model for the Elderly

The change in elderly lifestyle and living options is followed by the response by the public and private party. This response, for example, includes the increase and added variety in the supply of living options of the elderly. For example, as choices in living options are expanded and upon being more independent and financially stable, and elderly may choose to reside in the retirement village instead of ageing in place. Ageing in place, however, is highly preferred where the sense of neighbourhood is strong and the family based lifestyle is maintained (Yusnani, 2006). As shown in Figure 2.3, the Housing model has 4 stimuli; Family, financial, health as well as the environment.

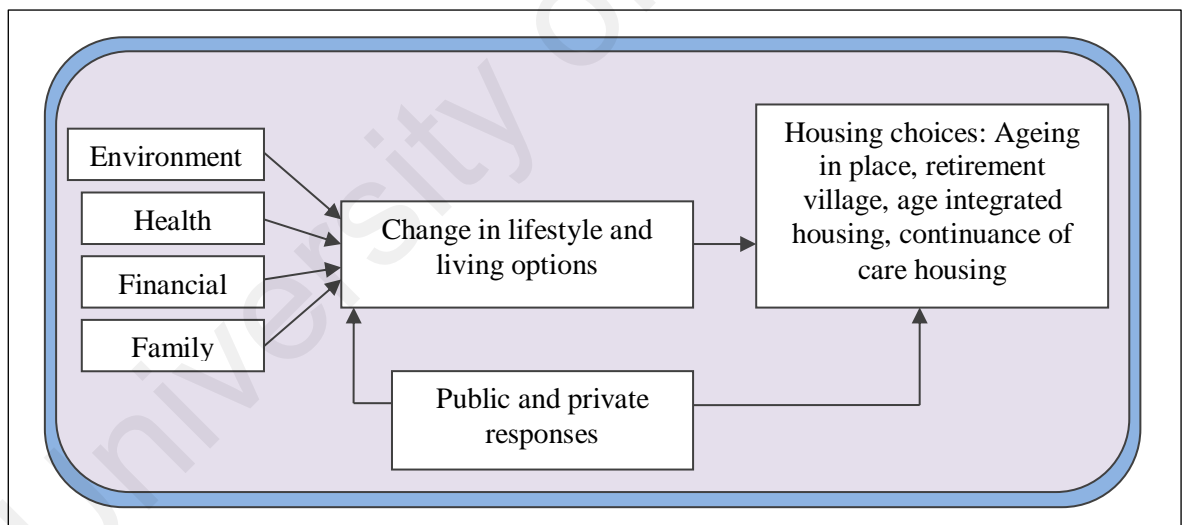


Figure 2.3: Housing model

Source: Yusnani (2006)

According to Yusnani (2006), environmental stimuli refer to as the aspect in everyday living that may contribute to the change or reorganisation of the elderly living. This, in turn, may have a positive or negative impact on the living condition and lifestyle of the

elderly. The environmental factors that directly affect the elderly could play a significant role in affecting the health condition of an elderly. A study conducted by Milan et al. (2004) within the homogeneous rural area in Italy, shows that elderly who co-reside with their family have better health status and cognitive function compared to their peers who live alone. This is important as it prove to have a direct effect towards the housing needs of the elderly.

The degree of which people are able to plan and control their housing environment and condition, have a direct relationship with their current level of functioning, self-esteem and most importantly, their health status (Danziger and Chaudhury, 2009). Despite having positive or negative health status and functional health, the living condition of elderly is still influenced by it. A common example is when an elderly face decline in terms of health, he/she may face more difficulty keeping up and maintain his/her house. Thus, there is the likelihood of change in terms of housing for the elderly. This is true since, elderly with lower level of health is seen to demand more intensive care and support such as opting for nursing care (Perks and Haan, 2010).

An adequate income and financial stability play an important role in successful ageing (Wagnild, 2003). Researchers also indicated that people who have greater economic resources and better financial status are more capable of maintaining independence (Burr and Mutchler, 2007). A small number of housing studies had also linked the strong ties between household employment type and financial status with their housing and living conditions (Tan, 2012; Pollock, 2007).

Marcellini et al. (2007) in his research had done a comparison study on the compared the ageing urban-rural difference within Italy. In that study, he had taken into consideration on the most fundamental factor, which is on the family and social network

aspect. A further result of the study indicated that the elderly living in rural areas have bigger household size and are more reproductive (have a higher number of children) compared to the urban elderly. According to Yusnani (2006), the family stimuli used in the Housing Model refers to the social interaction between the elderly with their family friends and neighbours. An elderly who had been divorced opt to live alone or with their children, whereas their other friends that are still married tend to live with their children (Mulder, 2008).

Being able to read and understand on the available theory and model of housing gives us a clear picture on how actually the ageing affects housing and vice versa. Next subsection will proceed on explaining on the Maslow Theory Model. The Maslow Theory Model is significant as it demonstrates the importance of adequate housing towards its owner.

2.3.2 Maslow Theory Model

Several attempts have been made to categorise and order, the various needs related to housing. Maslow (1943) came up with his theory of the hierarchy of needs and it had ever since then, been used as the foundation for attempts to categorise the housing needs, as shown in Figure 2.4. Maslow identified a hierarchy of human needs and safety need such as belonging, esteem and self-actualisation (Baqtayan et al., 2015). Higher level needs to become important when the lower needs are satisfied. The first need is relating to the housing environment and physiological need. Physiological well-being can come from dwelling's immediate physical environment as well as from the dwelling itself.

Maslow's theory demonstrates how important adequate housing is for the security and positive development, and this is the second level of need; people must possess the

security of a home and family in order to achieve the higher stage of need “self-actualisation” (Martin and Loomis, 2013). The second need is relating to the housing and safety needs. The term safety is important because we need to feel safe and secure in order for us to be able to relax. Meanwhile, the third need is pertaining housing and belonging needs. Maslow chose the term belonging to describe the basic human need for satisfying emotional attachments to another human being. In this study, for example, is the sense of attachments between an elderly parent and their children. In addition, the fourth need is regarding the housing and self-esteem. According to Maslow, individuals seek to reinforce their sense of self by seeking status and recognition in wants that are in accordance to their respective culture.

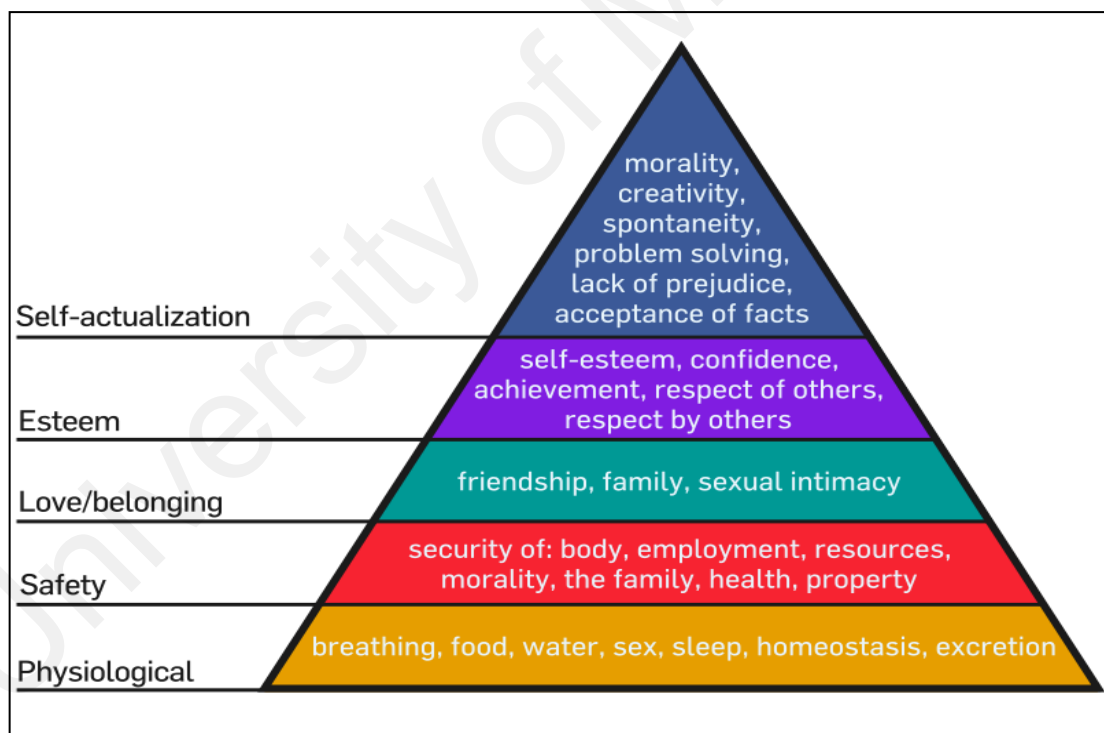


Figure 2.4: Maslow Theory Model

Adapted from: Maslow (1943)

Lastly, needs relating to self-actualisation. By self-actualisation, Maslow means the need to fully and creatively express one’s talents and capacities as a human being. He

argues that once the most basic needs have been satisfied, human beings are free to pursue activities that lead to a broader sense of satisfaction and growth. This aspect of Maslow's theory, however, has been one of its most controversial elements. The needs of Maslow are related to the 7 goals Zavei (2012) identified as underlying a decision to move; wealth, status, comfort, stimulation, autonomy, affiliation and morality.

Through the extensive explanation on Maslow theory, we are able to deduce that Maslow theory is significant in proving that housing is important for security need and positive development. The next section will further explain on housing need, housing condition and housing aspiration. Additionally, the next section will also give insights to the housing needs attributes.

2.4 Needs and Housing Needs: Theory and Past Research

Basic human needs include food, shelter, sanitation, as well as health care, are critical matters that need to be fully fulfilled (Hamid et al., 2012). As Tay and Diener (2011) pointed out, "people need to fulfil a variety of needs" and the need fulfilment has to be achieved at both the societal level as well as the individual level. The works of Bradshaw and Maslow is highly referred to when it involves the study area of needs (Seelig et al., 2008). Maslow is well known to lay out the sense of what people's need might be. On the other hand, Bradshaw (1972) were more keen on developing need's framework as a means of categorising how needs can be recognised and assess.

Housing needs can be demonstrated in several ways and are generally represented by three categories of housing problems; first is the inadequate or substandard housing conditions, secondly is in terms of overcrowding; and lastly is in terms of cost burden or paying more than the household can afford (O'Dell et al., 2004).

Rossi (1982) introduced the notion of - housing needs to conceptualise residential satisfaction / dissatisfaction. Rossi concluded that through different life cycle stages often makes households feels out of conformity with their housing and neighbourhood situations. This also brings changes to housing needs and aspirations. Migration and moving out of the house is among the household's way of responding to such dissatisfaction and an adjustment to their needs. Main elements of Rossi's Housing needs theory are: a) Life cycle stages and changing housing needs. b) The discrepancy between current and desired housing needs creates housing stress or dissatisfaction. c) Residents respond to this distress through migration.

Robinson and Thurnhe (1979) and Byrne (2015) on the other hand, describes housing need as: "the quantity of housing that is required to provide accommodation of an agreed minimum standard and above for a population given its size, household composition, age distribution, etc. without taking into account the individual household's ability to pay for the housing assigned to it." Housing need is described as a lack of housing of a particular standard and suitability. A basic concept relatable to identify need as pointed out by Karmel (1998) is that "people have housing needs if they cannot afford their current housing, or their current housing is not appropriate and adequate".

In addressing the question of whether needs can be measured and assessed it is necessary to conceive in the debate about respective roles of main players: the individual (deemed to be) in need, service providers and policy-makers, analysts and related 'experts', and others (Seelig et al., 2008). Debate on the "thin and thick theory of need" has a strong connection with the question of who is the one "best-fit" to describe what need is. Soper (2006) suggests that in essence, "the thin [i.e. universalist, objectivist] theorist can acknowledge and defend objective expertise in the matter of the

needs of others; ‘thick’ [i.e. relativist] theory prefers to listen to the voice of the claimants themselves and construe their needs on that basis”.

2.4.1 Differentiating Housing Need, Condition and Aspiration

Whether formulating a housing policy or determining how to allocate funding or services, it is important to have information available to aid in determining the degree and level of resources that are required.

Fordham (1998) identifies three criteria that are most often used in housing policy for justifying intervention: housing aspirations, housing condition, and housing need (refer to Figure 2.5).

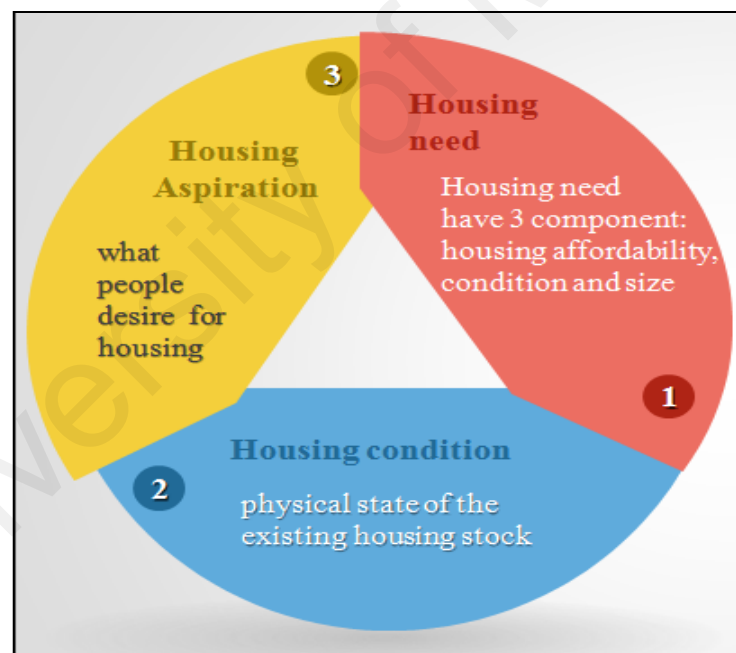


Figure 2.5: Differences between housing need, condition and aspiration

Adapted: Sumner (2005)

Housing aspiration refers to what people desire for housing (Beer and Faulkner, 2011). Housing aspirations have its spatial dimension, in that the housing decisions that people make are intertwined with locational factor and sense of attachment (McKee et al.,

2015). It highly involves the push and pull between pragmatic concerns and the satisfaction of acquiring a specific goal. People often want to become owner-occupiers, but even owner-occupiers often desire different housing from what they have. Everyone has aspirations, but the wealthy are more likely to fulfil them. In essence, McKee and Hoolachan (2015) stated that housing aspirations replicates how specific goals are positioned in, and constrained by, broader structural factors (for example, the monetary constraints).

Housing need is considerably harder to be defined as its official definitions vary. Lieder (1988) argue that due to the fact that need is an evaluative or social concept, it is crucial for standards to be established prior to determining which housing does not meet standard. Fordham (1998) elucidated that housing need constantly changes and it integrates housing condition, in which it relates the condition of the house to the household occupying it. A simple example is the scenario of having a new baby or family member, which obviously changes the housing need of the household.

Additionally, MacDonald (2015) also highlighted the scenario where elderly live in house that does not have sufficient bedrooms to support its household needs is seen as being in core housing need that requires attention. Bramley et al. (2010) stated that, multi-dimensional quality of housing need can be segregated into four wide groups: the lack of secure tenure, discrepancy/unsuitability, house condition as well as the social needs.

In relation to this study, for example, the housing need is explored through perspective of elderly, who may or may not be living in inappropriate/unsuitable housing condition. Thus, unsuitable accommodation as a form of housing need is further explored through the perspective of elderly living in urban-rural area.

2.4.2 The Housing Needs Dimensions and Categories

One of the basic starting points for this research has been the recognition of different dimensions or categories of housing need. Bramley et al. (2010) in “Estimating Housing Need” study had divided housing needs into four (4) main categories (unsuitability, house condition, social needs and lack own secure tenure) and further divided it into several specific groups.



Figure 2.6: Housing needs criteria

Adapted from: Weeks and Le Blanc (2010), Bramley et al. (2010) and Arthurson et al. (2007)

Likewise, Arthurson et al. (2007) in a study on the specific housing needs of people had also outlined the general criteria of housing needs that needed to be fulfilled. Figure 2.6 Housing Needs Criteria, displays and summarises the criteria as mentioned by previous researchers. Meanwhile, Pleace (2002) in his study had specifically looked into the elderly housing needs and had suggested 8 housing related needs for elderly. The housing needs for elderly are as shown in Table 2.1.

Table 2.1: Elderly-specific housing needs

Categories of needs	Description
Low-level support needs	Reaching out to the elderly who may not have anyone that can provide them with advice, help with their groceries shopping and other lower level support
Needs related to suitable accommodation	Making sure that the current house that the elderly reside is in proper condition and are suitable for living
Security needs	Making sure that the elderly lives in a house that are safe and secure from crime and other threatening elements
Needs related to adaptations	Disabled elderly are being provided with suitable facilities in their house such as grab bars and lift
Social needs	Elderly are being socially active while they are living independently
Ensuring housing related needs are met as part of a package care	Any housing related support needs will need to be met as part of the package of care received by the elderly
Advice and information	Giving and providing access for proper advice and information relating to support services and other information that they may need
Needs for grouped housing services for retirement people	Life in independent housing can be undesirable for some elderly, thus, elderly must be provided with other options of living such as providing retirement village for grouped living style.

Source: Pleace (2002)

2.4.3 Adopted Housing Needs Framework

Figure 2.7 is constructed based on the housing needs criteria used in housing studies by numerous researchers as shown in subsection 2.4.2 depicting the housing needs dimensions and categories.

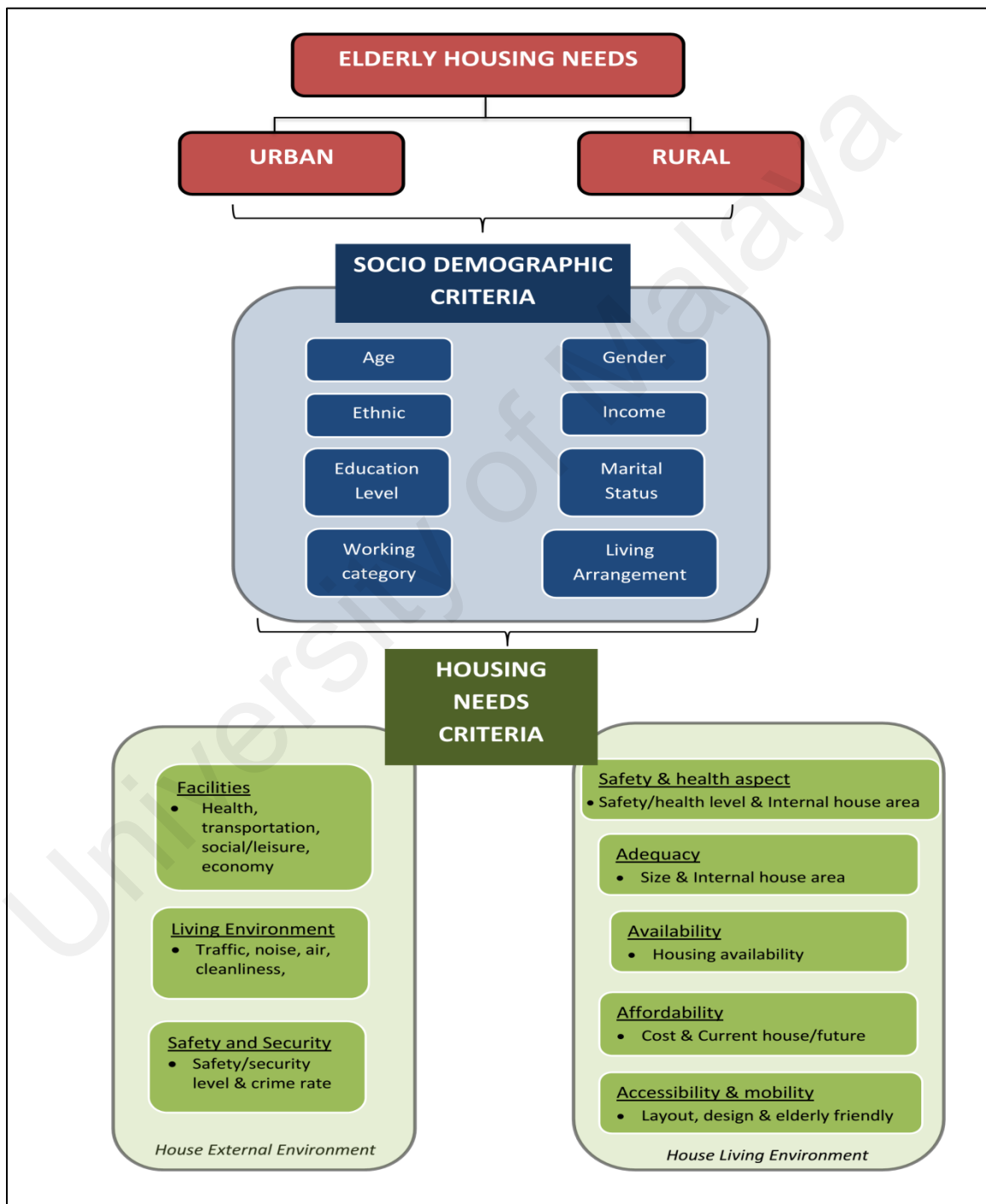


Figure 2.7: Elderly housing needs framework

From the previous studies on housing needs that were studied and further examined, the dimensions and categories were tailored and used to construct the framework for this study. Figure 2.7 described in details the variables used in this elderly housing needs study. The framework (based on Figure 2.7) adopted in this study is divided into two main housing needs criteria; House Internal Environment and House External Environment. The housing needs criteria were further tested against the socio demographic criteria of the elderly respondents. As such, this study only covers the criteria as listed in Figure 2.7.

Many elderly had lived in the same house for a very long time and developed strong sense of connection and aesthetic value towards their external environment as well as physical spaces, such as their gardens or homes (Wiles et al., 2012). Therefore this study had adopted two main housing needs criteria (House Internal Environment and House External Environment) which shall be further discussed in the following subtopic of 2.4.3.1 House Living Environment and 2.4.3.2 House External Environment.

2.4.3.1 House Living Environment (Dwelling)

Referring to Figure 2.7 Elderly Housing Needs Framework, it is shown that Dwelling which refers to the house internal environment adopted in this study have 5 main aspect; safety and health aspect, affordability, adequacy, accessibility and mobility as well as availability.

a) Safety and Health Aspect

A study on the “Housing for special needs: physical interior design to accommodate special needs” through its findings had proven that physical environmental barriers, such as stairs, lack of toilet and tub grab bars, poor lighting, and poor visual contrast, and lack of space can reduce accessibility; create dangers in the home and

community (Osman and Gibberd, 2008). In a study by Ferrera et al. (2014) it was further noted that bathroom area, bedroom area, kitchen area, garden/green area, stairs/ramp area, terrace area as well as living area was used as its focus in studying the physical space and adequacy of space in homes. Similarly, Ba-Sabreen (2013) also had listed the following house area as its main focus in studying the residential/housing environment: number of room, bathroom, bedroom, doors, kitchen, cabinets and ramps.

Previous elderly housing studies conducted in Malaysia had also taken into consideration the internal house area with respect to the respondent's house. Norazizan et al. (2006) in a study on elderly housing for instance, had taken into consideration 6 areas in the house namely; toilet, bathroom, kitchen, bedroom, living room and stairs. Findings revealed that elderly were majorly dissatisfied with their toilet area and bathroom area. In a much later study by Rosnah et al (2008) on the home living environment design and perceptions of home safety among Malaysian elderly, the study had also used the 6 main areas (toilet, bathroom, kitchen, bedroom, living room and stairs) in house to further elaborate the findings. In this study, toilets were also highlighted by the elderly respondents as the most unsafe area in their house. Therefore, the area in house which is adopted in this study is: entrance, living area, passageway, bedroom, bathroom, kitchen, compound as well as staircases.

b) Adequacy

Looking into the needs of elderly in terms of size, it is of the utmost important to meet the size needs as it may lead to negative side effects on elderly (Weeks and LeBlanc, 2010). According to Weeks and LeBlanc (2010), among the negative side

of not meeting the needs in terms of size are the privacy issue as well as maintenance issue. Larger families generally require more rooms, as compared to smaller families. It is a strong belief that elderly residing in rural area mostly live in an extended family condition, whereas the urban elderly mostly live in a nuclear family condition.

Therefore, this study shall focus on the sizes of each internal house area (refer to areas listed in section c), while taking into consideration the socio demographic criteria (including the living arrangement) and comparing it to the urban-rural rural factor of elderly in Malaysia.

c) Affordability

In a study on “Housing wealth and housing decisions in old age: sale and reversion” it is indicated that elderly citizens sell their homes after a certain age, either to meet the needs of old age or to transfer assets to their offspring while they are alive, presumably in exchange for care (Costa-Font and Mascarilla, 2010). To what extent does this finding can be generalised in Malaysia shall be discussed in the Findings chapter.

d) Availability

In a study on housing wealth and housing decisions in old age, it is indicated that elderly citizens sell their homes after a certain age, either to meet the needs of old age or to transfer assets to their offspring while they are alive, presumably in exchange for care (Costa-Font and Mascarilla, 2010). To what extent does this finding can be generalised in Malaysia shall be further discussed in the Analysis and Findings chapter.

e) Accessibility and Mobility

The aspect of accessibility and mobility is studied by looking into the internal house mobility, layout and design as well as the specific design for elderly. Accessible generally means that the house/dwelling meets prescribed requirements for accessible housing. Accessible features in dwellings include items such as wide doors, sufficient clear space for wheelchairs, loop-type handles on hardware, grab bars in the bathroom and knee spaces under the sink. These features are permanently fixed in place and very apparent (Demirkan, 2007).

2.4.3.2 House External Environment

The (3) three main factors of house external environment are the facilities, living environment as well as safety and security.

Several previous studies had highlighted on the importance of external environments and neighbourhoods as crucial factors in elderly decision to age in place (Oswald et al., 2010). As for the Facilities, it includes the health, transportation, social/leisure as well as economy. In a study on elderly accessibility to essential services and facilities, the spatial patterns of accessibility in terms of the shortest network distance travelled from residential locations to their nearest essential services and facilities are studied. Among the main services and facilities used in the study are medical centre, pharmacy, bank, library, church, shopping centre, bus stop, train station, social club, etc (Liu and Engels, 2012). Accessible transportation is crucial aspect of independent living and often, public transportation is opted as main means of commuting for elderly as most of them may not be able or no longer able to drive (Somenahalli et al., 2016). Having efficient public transportation may be seen as very important to elderly who live alone as they have to rely on their own to commute.

The safety and security aspect of neighbourhoods is also important factor when we study on elderly housing needs. A study conducted had shown that elderly are less likely to move to big cities or urban areas as those areas are highly linked to high crime rates (Fokkema et al., 1996). In relation to this study, the safety and security of elderly external house environment shall be further studied and compared in terms of the urban-rural aspect. Therefore this study had implemented two main housing needs criteria (House Internal Environment and House External Environment) which shall be used to achieve the objectives set in this study. Moving on, the next subsection shall further explain on the international elderly policy and plans.

2.5 International Elderly Policy and Plan

The First World Assembly on Ageing initiated the 1982 Vienna International Plan of Action on Ageing and subsequently led to the 1992 Proclamation on Ageing of the United Nations (Shankardass, 2014). The Second World Assembly on Ageing were later held in Madrid, Spain during the year of 2002. The Madrid International Plan of Action on Ageing (MIPAA) has outlined 3 Priority Directions for countries to follow upon framing their policies and programmes. The 3 Priority Directions includes; firstly the “Older Persons and Development Advancing Health”, secondly the “Well-Being into old Age” and thirdly “Ensuring Enabling and Supportive Environments for Older Persons” (United Nations, 2002).

2.5.1 The United Nations Principles for Older Persons

In 1991, the UN General Assembly introduced the UN Principles for Older Persons, the first document related to ageing to embrace a rights-based approach. The United Nations Principles for Older Persons encourages Governments to incorporate the following principles into their national programmes whenever possible (United Nations, 2002):

i. Independence

Elderly are to be given access to adequate basic needs (such as food, water, shelter and health care) and the opportunity to continue working and generate their own income. Additionally, elderly should also have access to learning and training programmes.

ii. Participation

Elderly should remain included in society, be actively participating in formulation and implementation of policies as well as be given a chance to serve to the society, and share their knowledge.

iii. Care

Elderly should receive benefit from family and community care. Additionally, they should be able to access health care, social services and legal services.

iv. Self-fulfilment

Being able to pursue opportunities for the full development of their potential as well as having access to the educational, cultural, spiritual and recreational resources of society.

v. Dignity

In terms of dignity, elderly should be able to live in dignity and security and be free of exploitation and physical or mental abuse. They should be treated fairly regardless of age, gender, racial or ethnic background, disability or any other status.

2.5.2 Madrid International Plan of Action on Ageing

The Madrid International Plan of Action on Ageing (MIPAA) has outlined 3 Priority Directions for countries to follow upon framing their policies and programmes. The 3

Priority Directions are (1) Older Persons and Development; (2) Advancing Health and Well-Being into old Age; (3) Ensuring Enabling and Supportive Environments for Older Persons (United Nations, 2002).

For the first Priority Direction stress upon the “Elderly and development”, it comprises of 8 issues. First, the “Active participation in society and development”, second the “Work and the ageing labour force”, third the “Rural development, migration and urbanisation”, fourth is the “Access to knowledge, education and training”, fifth is the “Intergenerational solidarity”, sixth is the “Eradication of poverty”, seventh is the “Income security, social protection/social security and poverty prevention” and lastly is the “Emergency situations”. The first issue in this Policy Direction, stress on the issue of “Active participation in society and development of elderly” where it encourages the contribution of elderly through social, culture, economy and politic to be recognised. Elderly must also be allowed to participate in the decision-making at all levels.

Importantly, the Madrid International Plan of Action on Ageing also touches on the housing and environment aspect for the elderly. It is written in the third Priority Direction which is the “Priority direction III: Ensuring enabling and supportive environments” (United Nations, 2002). The first issue under this Policy Direction is in terms of the “Housing and the living environment”. It is suggested that “ageing in place” should be promoted as the main key option for elderly as it is the more preferred and affordable housing option for the elderly. With that, it is thus suggested that the design of housing and environment improves in order to enhance the elderly independent living. Additionally, it is also implied that the transportation system must also be improved to increase the mobility rate of the elderly. Other issue touched in this section of Priority Direction includes the issue on neglect and abuse as well as the images of ageing.

In sum, this section had summarised on the international policy for elderly. The next section is a continuance of this section where it will discuss the elderly housing insights from another country. Since Malaysia is yet to start its own way of tackling the elderly housing issues, this housing insight will provide researchers on the variety of ways possible in handling the Malaysian elderly housing issues.

2.6 Elderly Housing Insights from Other Asian Country

Every country in the world is experiencing in the absolute and relative size of their elderly population, but tremendous variation will occur in ageing patterns between different countries (Hayutin, 2007). Alternately, each group of elderly in different country and society have different needs. With the significant increase in a number of elderly, it is notable to see trends among countries, especially the Asian countries to pay more attention in providing better adequate health, housing, economic and social care (Shankardass, 2014). This thus gives more pressure towards governments for each country to improve and formulate new policy and strategies in order to meet the respective need of their country's population.

The housing insights discussion in this study was centred on the Asian country. This is primarily due to the fact that Malaysia has abundant and long history on cooperation with these countries, these countries are also geographically close to Malaysia and are also more or less having the same "Asian culture and values". The Asian value of filial piety is among the root cultural value that shapes the elderly care and housing policy in the Asian region (Izuhara and Forrest, 2013). Thus in this study, only the elderly housing policy and housing insights from the Asian Countries are summarised and selected in order to provide a useful insights on how other countries manage the housing needs of their elderly.

2.6.1 Japan

Japan is ahead of other countries in dealing and experiencing “super-ageing” society, for both in their rural and urban area (Muramatsu and Akiyama, 2011). In Japan, up until now, the social support system for the elderly has always been reliant upon family support. The government of Japan wholly acknowledged the significance of family care as one facet of formal provisions and the contradictory clashes imposed by the need to work and need to care (Tsuno and Homma, 2009). Thus, more and more policies were developed by giving more emphasise upon encouraging the elderly to co-reside with their family (Park and Lee, 2008). The policies introduced by the Japan Government are as follows:

i. Cohabitation Policy

Park and Lee (2007) explained that there are two types of cohabitation policy; Preferential Loan for Cohabitation and Nearby Live-ins as well as the Preferential Entry System of Public housing for Cohabitation and Nearby Live-ins. Basically with the main condition of living nearby or together with elderly, the younger generations get to enjoy the privilege of getting support to their loan or entry system to public housing.

ii. Retirement Homes

In Japan, retirement homes are being divided by occupiers and not by its purpose (Park and Lee 2008). Senior House which is provided by private sector for example, is mainly built in order to cater the middle and upper financial-class elderly. Contrastingly, the Silver House serves to cater the low to middle class elderly. In line with this, an important requirement or criteria to enter Silver Housing Project is that the elderly must be independent and are of the age 60 years old and above. There were two types of house, which is for single (35.4m²) and a couple (48.8m²).

The senior house, on the other hand, is a collective rental house for middle financial-class elderly who are active and independent. There are 3 types of supplies; public organisations, private or the public corporations, and supply through public rental of the house which is privately constructed (Kim et al., 2003).

iii. Elderly Rental House

The elderly rental house mainly aims for the residential security of elderly having low income. This is a change of emphasis from direct housing provision by the local governments to encourage (through incentives) the private sector (Kose, 2008). Low rent rate for can be made available for the elderly, as the owner receive incentives and subsidy for their construction costs and rent (Park and Lee, 2008).

iv. House Remodelling and Promotion of Barrier-Free Environments

Japan Ministry of Land Infrastructure and Transport, as well as the Ministry of Health Labor, manage the institution of consultation on remodelling and modifying (Park and Lee, 2008). Japan has guidelines which stated that the basic concept of the house must include the elements of safety, accessibility, usability as well as affordability (Kose, 2008). For example, handrails installation, wider doors and corridors and the basic flat floor design. Additionally, taxation deduction system aids in the Japan Governments' effort to encourage barrier-free region. There is property tax deduction as well as income tax deduction for any renovation work to make barrier-free area.

2.6.2 Singapore

Singapore is experiencing rapid ageing process and is expected to have 20 percent population of the age 65 years in 2030 (Wen, 2013). This is due to a rapidly declining total fertility rate coupled with an increasing life expectancy. Therefore, just like Japan,

Singapore also had been trying their best to handle the issue of soaring number of elderly in their country. In terms of housing welfare of the elderly, the policies introduced by the Singapore Government are the following:

i. Studio Apartment Scheme (SA) and the New Flexi Scheme

Studio Apartments (SA) by HDB is being built in such way that it is integrated within existing public housing estates as they strive to deliver customised housing option for elderly (Joo and Wong, 2008). The apartments were constructed in such way that it is, equipped with elderly friendly features such as heat detectors alarm, hand bars as well as non-slip tiles.

Studio Apartment buyers also have the choice of utilizing their Central Provident Fund (CPF) monies for the purpose of purchasing a Studio Apartment unit. The revised rules also allowed non-property owners to buy Studio Apartment with the condition that they do not include their children as co-owners. Additionally, under the 2-room Flexi Scheme, elderly citizens have the flexibility of choosing the length of the lease on their 2-room flat, based on their age, needs, and preferences. Elderly of the age 55 years old and above can take up a lease of between 15 and 45 years in 5-year increments.

ii. CPF Housing Grant Scheme

HDB has also introduced the CPF Housing Grant Scheme in their ongoing effort of trying to facilitate seniors to age-in-place and live with or near children. Higher tier housing CPF housing grant scheme is available for first-time homebuyers who choose to live with their parents, in the same housing estate or within 2 kilometres of their parents (Rahman, 2013).

iii. Married Child Priority Scheme (MCPS)

To facilitate elderly to age-in-place and live with or near children, HDB also has the Married Child Priority Scheme. Under the MCPS, children who had been married are given twice the weight in balloting exercises if they apply for a flat to stay near or together with their parents.

iv. HDB Rent a Room or Flat

For those elderly of the low-income group that cannot afford other quite expensive housing options, The HDB also provided rental flats unit (Wong and Verbrugge, 2009). These units are either one-room unit (only for households of monthly income below \$800) or two-room unit (for a household earning \$801 to \$1500 per month).

v. The Subletting of Whole Flat Scheme

The Singapore government allows elderly HDB flat owners to monetise their flats through the subletting scheme and studio apartment scheme (Rahman, 2013). This is true since the HDB allows the elderly HDB flat owners to downgrade their unit to a smaller unit, or sublet their spare room or their whole flat. Having to be able to sublet part of their unit or their whole unit, the elderly owner is seen to be able to move in with their married children and monetise their HDB unit. Thus, this meets the elderly needs of not wanting to lose their house by selling them, making them feel secure and alleviate the “asset-rich, cash poor” phenomenon.

vi. Upgrading Projects

The Housing Development Board (HDB) in Singapore helps to upgrade flats with elder-friendly features such as grab bars in the bathroom / toilet and non-slip floor tiles using the Enhancement for Active Seniors (EASE) under the Home Improvement Programme

(HIP) (Teo and Lin, 2011). Other ways used by HDB to encourage elderly to age in place, is through its upgrading programmes such as the Neighbourhood Renewal Programme (replaces the Interim Upgrading Programme (IUP) Plus).

2.6.3 Hong Kong (HK)

The Elderly Policy Objective in Hong Kong is “To improve the quality of life of our elders, ensuring that they will continue to enjoy a sense of security, a sense of belonging, and a feeling of health and worthiness.” In Hong Kong, ageing in place (community care) is the core for the care of elderly, whereas institutional care is introduced as a back-up.

i. Home and Building Maintenance and Universal Design

A Manual on Barrier Free Access in 1997 was issued by the Hong Kong government’s Building Department. The manual contains ‘obligatory’ and ‘recommended’ design requirements with which owners of buildings must or should comply in order to avoid unjustifiable hardships for people with disabilities. The design requirements stated in the guidelines include ramps, dropped kerbs, steps and staircases, handrails, signs and call bells in disabled toilets.

Home Environment Improvement Scheme for the Elderly was introduced with the aim of assisting elders who lack financial means and family support to improve their dilapidated homes with poor fittings (Tsien, 2014). The elderly of age 60 or above and are living alone or are living with other elderly are eligible to apply for this scheme. A maximum subsidy of \$5000 will be granted upon application approval. Besides that, Building Maintenance Grant Scheme for Elderly Owners was introduced with the aim is of providing financial aid to elderly owner-occupiers to repair and maintain their self-occupied buildings. The elderly applying for the scheme must own the property that

he/she currently live on and must be of the age of 60 years old and above (Tsien, 2014). Several countries had implemented various ways in trying to improve the quality of life of their respective elderly population. Hong Kong government, for example, had implemented 5-year Home Environment Improvement Scheme for Elderly and published Design Manual: Barrier Free Access in 2008 (Hong Kong Buhinia Foundation Research Centre, 2010).

ii. Lessen Burden on the Mortgage, Lease and Financial of Housing

The Hong Kong government introduced the Senior Citizen Residences Scheme (SEN) in trying to alleviate the burden on financial housing issues of the elderly. SEN housing flats are disposed of under a 'long lease' arrangement where older people (aged 60 or more) have to pay a lump sum on taking up residence instead of a monthly rental. The SEN flats are self-contained domestic units that have a universal design with facilities that can meet the changing needs of elderly and it also provides social, recreational and personal care services for elderly residents. Jolly Place, Cheerful Court, Joyous Living and North Point are among the SEN available in Hong Kong. Besides that, housing financial assistance called the Reverse Mortgage Programme is also available for the elderly aged 60 or above to apply. This program allows, the elderly to obtain monthly pay-outs for either a fixed period of 10, 15 or 20 years or the entire life according to his/her own need while staying in their own house.

iii. Ageing-in-Place

According to Mohammad et al. (2008), in Hong Kong, the elderly living alone or with non-family members are entitled to apply for the Priority Public Rental Housing Schemes. This scheme can also be further divided into 2, which are as follows:

- a) Single Elderly Persons Priority Scheme – Single elderly person who are of the age 58 years old and above are entitled to apply for this scheme. If the elderly is applying for self-contained flat, it is a norm for the waiting time to be around 4 years.
- b) Elderly Persons Priority Scheme – This scheme can be applied when two or more unrelated elderly persons have come to the agreement to live together. However, upon applying for this scheme, all the applying members must be of the age of 58 years old and above.

Similarly, the elderly living with their family is entitled to apply the Harmonious Families Priority Scheme. The scheme can be divided into 2, which is as following:

- a) Families with Elderly Persons Priority Scheme – Young families that apply for this scheme must take care and live with their related elderly members (parents, relative). It is also a must for the family to have at least 3 persons in the house. In average, the waiting time for this scheme is around 3 years.
- b) Special Scheme for Families with Elderly Persons – For this scheme, with a minimum household size of 4 persons, young families willing to add their elderly parents/ relatives in their tenancies are eligible for a larger flat.

iv. Providing More Community Care Services and Residential Care Homes

According to Chui (2008), the Hong Kong government provides funding to NGOs operating nursing homes, which amounts to the costs of about half the total of approximately 70,000 places available. Tsien (2014) stated that, the Hong Kong government also provides Community Care Services, such as the District Elderly Community Centre, Social Centre for the Elderly, Neighbourhood Elderly Centre, Day

Care Centre for the Elderly, Dementia specific day care centre, Integrated Home Care as well as the Enhanced Home and Community Care Service.

2.6.4 South Korea

In 2010, in co-operation with several ministries, the Korea's Ministry of Health and Welfare had established an action plan for 2011-2015 under the a plan called the *Basic Plan to Address Low Fertility and Ageing* (South Korea Ministry of Health and Welfare, 2010). The plan proposes few ways on how to improve the quality of life of elderly, which include supporting housing. Its housing objective includes enacting legislation to support elderly housing as well as to provide rental housing for elderly (allocating 5% of total public rental housing in Bogeumjari housing area to seniors).

Japan is known to have surpassed other nations in undergoing a "super-ageing" society, however, South Korea is undergoing an even faster population ageing rate than Japan (Muramatsu and Akiyama, 2011). With the increase in ageing rate, up until now, the Korean social support system for the elderly has been mainly dependent on a private family support system (Park and Lee, 2008). Thus, listed below are the ways on how the South Korea government handles the elderly housing issues.

i. Recommending a Family Cohabitation Policy

The Korean policy that encourages elderly to cohabit with their grown children is known as Family Cohabitation Policy. The benefit of this policy includes reduction for income, exemption for tax and preferential treatment of housing funds as well as entry into apartments (Gibler and Lee, 2001). First, there is an ageing preferential deduction in the Income Tax Law where, grown children that cohabit with their elderly parents are allowed to receive 5 years old tax deduction. Second, elderly parents and grown children owns a house, and live separately when they decide to cohabit, a transfer

income tax is exempted. Household who cohabits with elderly over 65 years old has increased possible loan amount.

ii. The Preferential Entry of Public House for Household Which Cohabit With a Parent(s)

A public house means public funds and national housing funds are lent, or supported. Housing price and rent fee are very high when compared with the income of households, residential costs can be reduced through public rental homes (PCAP, 2006). Preferential entry system was introduced with the aim of supplying a householder without a house who lives with a parent(s).

iii. House Remodeling

Following the Singapore “Home Improvement Programme” and the Hong Kong “Integrated Building Maintenance Assistance Scheme”, South Korea also gives financial support for remodelling old house owned by the elderly, such as by giving a low-interest loan (Chung, 2014).

iv. Korea Retirement Village

In Korea, among the example of its retirement village is the Ga-yang region complex as well as the Kim-we. With regards to this section, we can draw the conclusion that most Asian countries practices co-residing as providing care for elderly are part of the cultural tradition (Shankardass, 2014). Policy makers in Asia aim at maintaining these cultural norms and values rather than developing potentially expensive formal aged care programs and facilities. These policies focus on the older person remaining integrated into society and being included in the formulation and implementation of policies that affect their well-being.

In Malaysia, a multidisciplinary approach is required to set up these policies and they emphasised the sharing of responsibility between government, private sectors, non-government organisations, community and the older people themselves in order to meet their needs (Wong, 2010). In relation to this, since Malaysia is still new in trying to meet the needs of elderly, it is important to learn the policies and plans implemented in other countries. The housing and living options available for elderly will be further discussed in the next section.

2.6.5 Main Highlights on the Best Practice of Elderly Housing Insights

Based on this study, only the elderly housing policy and housing insights from Asian countries are summarised and selected in order to provide a useful idea on how other countries manage the housing needs of their elderly.

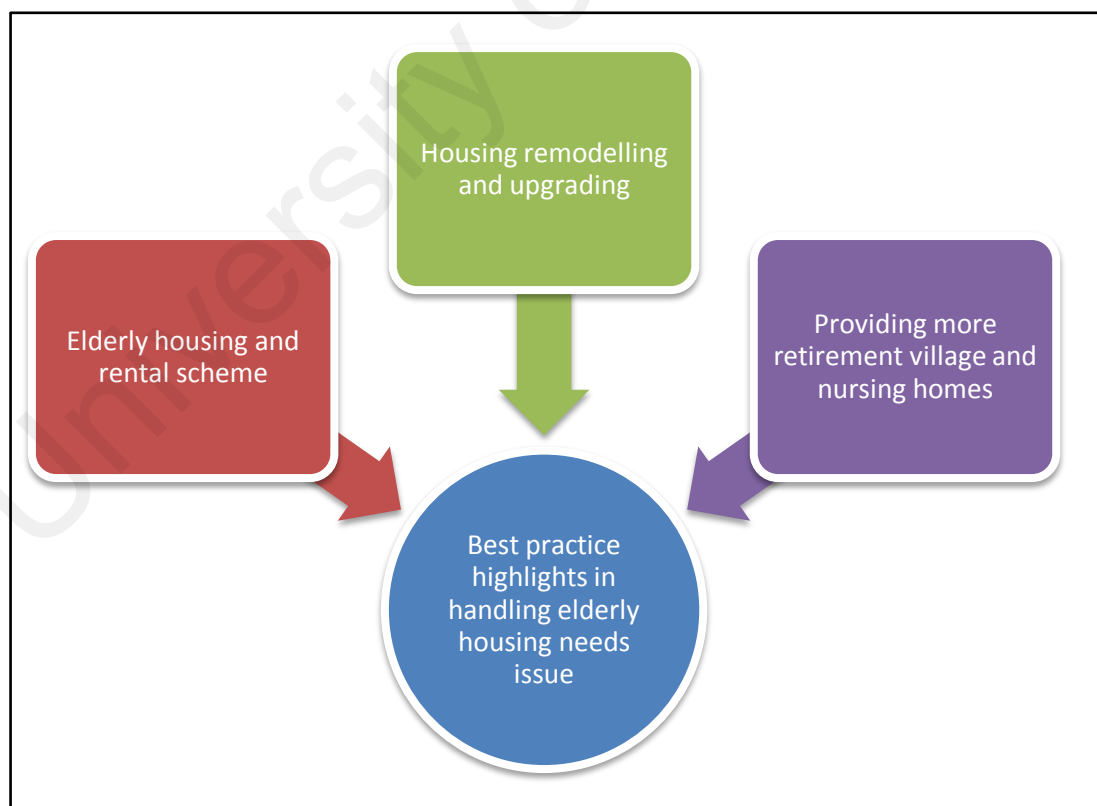


Figure 2.8: Best practice highlights in handling elderly housing needs issue

Learning from the countries that had experience ageing, we can deduce that mainly the countries adopted three (3) means of handling the elderly housing issue; housing remodelling and upgrading, elderly housing and rental scheme as well providing more retirement village and nursing homes (refer to Figure 2.8). Singapore, for example, has their Enhancement for Active Seniors (EASE) under the Home Improvement Programme (HIP).

On the other hand, elderly housing and rental scheme can be categorised into 2 types, which is the monetary and physical. Taking the example of Japan, they have their own recommending Cohabitation Policy, where the monetary factor was used to encourage family and friends to cohabitate with the elderly. Additionally, Japan government also give physical help to the elderly by having rental houses mainly for elderly.

For developed countries such as Japan and Korea, it is a norm for the elderly to live in retirement village and nursing homes. This is in contrary with the current Malaysians filial piety culture. However, learning the trends from other developed Asian countries like Japan and Korean, it is highly predicted that there will be an uprising in demand for retirement village and nursing homes, as the society move to a more modern lifestyle.

2.7 Housing and Living Options

Living independently, that is, either living alone or only with one's spouse, is rare among older people in developing countries, but is the dominant living arrangement in developed countries. In Korea for example, the increase of the ageing rate in Korea is faster than that of Japan, thus leading to significantly reduce of the elderly support through children (Park and Lee, 2008). Yusnani (2006) clarify that basically, there are 3 basic types of care; home and community care, residential/institutional care and informal care. They are delivered in specific environments and the types of care are

identifiable with living options and, hence, housing options. On the other hand, according to Park and Lee (2008), basically the housing and facility options available for the elderly population can be divided into 4 basic categories; Family home, elderly care, medical facilities and retirement village.

2.7.1 Family Home (Ageing in Place)

Ageing-in-place is a philosophy and a concept that has numerous meaning. It can be defined as the ability of an elderly to remain in their current community as they age (Davey et al., 2004). Hwang et al. (2011) have a similar understanding of ageing in place as they stated that the term means elderly “prolonged residence” in the current house instead of being relocated to an institutional setting. Similarly, Brink (2013) also defines it as ‘having the ability to live in your own home as long as possible in an independent, safe, comfortable and healthy way’. Clark and Deurloo (2006) have a similar understanding on the definition of ageing in place, as he defined ageing in place as remaining in one's original house and/or neighbourhood while ageing. However, some other researchers define ageing in place as enabling older people to maintain independence, autonomy, and connection to social support, including friends and family (Lawler, 2001).

This age-in-place concept is in holding to the principle of ensuring that the elderly does not lose their sense of security which will occur if they were to move to another area that are unfamiliar to them. The principle is in line with UN Principles for Older Persons (United Nations, 2008), which designate 5 imperatives for any social policy for elderly: independence, participation, care, dignity and self-fulfillment.

The relevance of these five principles to our present concern about ageing-in-place revolves around the issue of accommodation or housing. According to the United

Nations Committee on Economic, Social and Cultural Rights (United Nations, 1991), the satisfaction of the need for housing is taken as a facet of basic human rights; it can also be conceptualised as housing rights. Older people should be provided with adequate housing that is characterised by the legal security of tenure and availability of services, materials and infrastructure; and that is affordable, habitable, accessible and finally culturally adequate.

On the other hand, according to Pastalan (2013), ageing in place means not having to move from one's present house/home in order to secure necessary support services in response to changing needs. He further claimed that health, death of spouse or loss of income is among the major reason of the residential relocation of the elderly community. Fange et al. (2012) in his writing implied that there had been a pleasing sign of the interest and effort being applied to the "ageing in place" issues by researchers and practitioners in diverse fields. He further explained that if the elderly choose to move into his/her children's house, then he also categorises to fall under the family home option.

2.7.2 Nursing and Care Homes

Residential care homes provide living accommodation, meals and help with personal care, such as washing, dressing and going to the toilet. Staff will give care during normal short illnesses, but do not provide nursing care. Additionally, just like residential care homes, the nursing homes also provide living accommodation, meals and personal care but with extra service on the nursing and medical care from a qualified nurse who is on site 24 hours a day.

Nursing homes can either, be owned and run by private, non-profit organisations and local authorities. In general, these nursing homes can be further divided into 3 main

categories, mainly; Private nursing home or the voluntary nursing home as well as the governmental nursing homes. Nursing homes built by the government is community housing built for the senior citizens who are less in terms of their financial conditions, who are childless or even abandoned. These institutions usually houses elderly person who experience certain health conditions that need extra attention and assistance (Barry and Conlon, 2010).

In sum, these institutions provide accommodation and care for elderly experiencing physical frailty and in constant need of extra attention and assistance. The institutions will also provide medical help, security, physiotherapy and their daily needs supply (for example, food and clothes). Most of the time, they are being taken care by professional personnel, which had been trained and appointed by the government or the respective charity organisations.

2.7.3 Retirement Village

‘Retirement’, ‘village’ and ‘community’ are all contested and debated terms. ‘Retirement’ sits uneasily with the ethos that many of the developers of these villages are trying to promote. Far from encouraging people to retire, they are marketed, particularly in the United States of America, as environments in which people are encouraged to participate, and to become or stay active (Katz and McHugh, 2010). However, the basic idea of retirement village concept is the concept of having an elderly community living independently together with other fellow elderly persons in a building which are equipped with health assistance and other assistance needed by an elderly person.

A significant number of elderly pointed out that they prefer to age in place. However, there is a number of growing demands for retirement villages especially in the western

region (Evans, 2009; Bernard et al., 2012). Retirement village residents cite various benefits to retirement community living, including security, independence and communality, and generally report relocation as associated with increased quality of life (Crisp et al., 2013).

However, need to be reminded that not all people considers retirement village as something positive. Retirement village may be seen as an environment that is full of isolation, lack of privacy, loss in terms of independence and dictating dependence. The decisions that elderly do relate to their future housing needs may involve a complex range of factors. To date, there has been a paucity of research investigating characteristics that distinguish between individuals who consider relocation to retirement villages and those who do not.

2.8 Highlights on the Urban-Rural Significance

The urban–rural distinction may provide a helpful device in framing questions related to important processes such as modernity, globalisation and how they can affect ageing. (Marcellini et al., 2007) The place is significant for people as they age due to increased reflection and reminiscence. Strong bond and connection with place can promote well-being, keep the past alive, offer constancy, meaning, control and security in times of change, maintain a sense of competence and independence, facilitate adjustments and maintain positive self-image and identity (Wiles et al., 2009). Chan (2015) pointed out that rural elderly have particularly strong ties to their homes, communities, and to the land because they have a distinct culture based on a long history, ethnic or cultural connections, and unique aspects including “legacy of home place” Dye et al. (2010) further supported this as he pointed out that elderly are very fond to their house as they feel more comfortable in an environment that they are familiar to.

Marcellini et al. (2007) in his research found out that, a substantially higher proportion of the elderly people living in urban areas is better educated and have higher income and salary, compared to the elderly community living in rural areas. In the research, in terms of housing, it is found out that although there are a lot of contrasting aspects that occur between urban and rural community, however, when it comes down to the basic amenities, nearly all houses irrespective of urban or rural, have the necessary comforts and services such as a telephone and a fully equipped bathroom.

In their study on rural-urban differences of ageing Korea, Hwang et al. (2014) compared demographic and housing, and health-related variables associated with ageing in place. Their finding in terms of housing had showed that elderly living in rural areas were likely to own their house, to live in single-family housing, and to have lived longer at their current housing as compared to the urban elderly. Zimmer and Chappel (1997) on the other hand, compared the urban and rural area based on their neighbourhood aspect. Results from this study indicated that the rural elderly is seen to be more particular in terms of their social interaction amenities as compared to their rural counterparts. Furthermore, these results are in line with those of Burholt and Naylor (2005), as they suggested that rural elderly are more attached to their house and environment due to strong social relationships with friends, neighbours, community groups or religious organisations.

Inevitably, it suggested that social relations are the utmost important aspect for those living in rural areas as compared to their urban counterparts. Selvaratnam and Tin (2007) showed that majority of elderly in both urban and rural area in Malaysia are socially connected and sees strong social relationships as a very important aspect in their life. This differs from the findings in previous research which indicated that the rural areas are having a stronger social relationship.

Having reviewed the literature, it can be seen that the elderly policy and plan as well as provision of housing for the elderly in other Asian Countries had provided useful insights on how other countries managed the housing needs of their elderly. The housing and living options for elderly in developing countries were also reviewed and had provided sufficient understanding on how elderly in other countries live. Additionally, the significance urban-rural aspect was also highlighted in this subsection. Relating back to the study, better understanding of these elements had laid a stronger foundation to further study on the housing needs of urban-rural elderly in Malaysia.

2.9 Summary

The discussion presented in this chapter showed that elderly are unique and have different needs. Elderly have a diverse range of aspirations and needs in relation to their housing (Bevan, 2009). By recognising their uniqueness, then only we can improve the housing quality and housing standards for the elderly. Additionally, the first step in responding to future aspirations and needs of elderly is by assessing their needs and aspirations. Thus, assessing their housing need comes in place, prior to us being able to shape and implement new housing policy and plan for the elderly. Additionally, the elderly housing insights from another country discussed in this chapter has a positive lesson that Malaysia can adopt from in trying to provide better housing condition for the elderly.

CHAPTER 3: ELDERLY IN MALAYSIA

3.1 Introduction

This chapter aims to give a brief understanding on every aspect influencing the needs of elderly in the context of Malaysia. This chapter begins with a brief discussion on the demographic characteristics of Malaysia, particularly in the context of the past, recent and future elderly population. The major socio-economic characteristics of the elderly are highlighted in this particular chapter. Aspects such as the gender, income, health and living arrangement were further explained in the first section of this chapter. Thus, this can give an insight for better understanding on the Malaysian elderly. In the second part of this chapter, the related elderly policy, programmes and action plan are examined. The subtopics discussed in this chapter are significant in helping to understanding the broad range of factors and policies affecting housing market specifically for the elderly.

3.2 Population Trends and Characteristics of Malaysian Elderly

In Malaysia, the elderly is categorised as people of the age 60 years and above (Hamid et al., 2012). This is in accordance with the 60 years old and above cut off point for ageing as being suggested by the United Nations Worlds Assembly on Ageing held in Vienna 1982.

Population ageing remains a global phenomenon in this new era and will remain to become among the major issue in most developing countries. Malaysia, as a country with upper middle income and that, is populated by an estimation of around 30 million people, is of no exception. Developed nations are experiencing a relatively little change in the increase in elderly people as compared to the developing nations (middle income and low-income countries), where, Malaysia is an example of such a population.

(Momtaz et al., 2011). In relation to this, the Department of Statistics Malaysia (2010) indicated that the elderly population in Malaysia is around 8 percent out of the total Malaysian population, as there are 2.2 million elderly out of 28.5 million Malaysian. By the year 2020 around 10 percent of the Malaysian population will consists of people of the age 60 years and above (Sulaiman, 2011; Hamid et al., 2012)

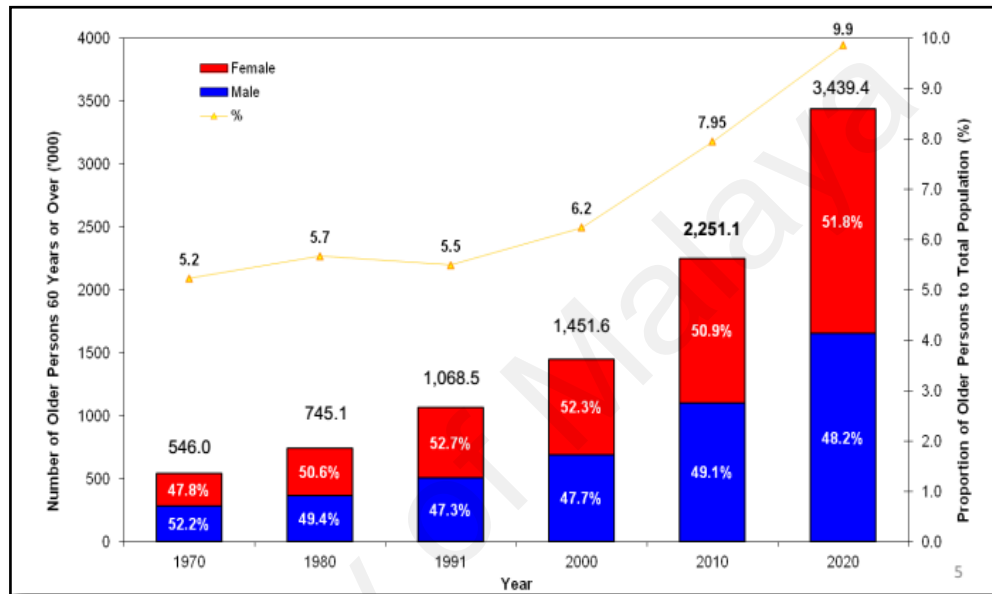


Figure 3.1: Malaysia population 1970-2020

Source: Department of Statistics Malaysia (2012)

In 2010, as indicated in Figure 3.1 and Figure 3.2, it was recorded that there are a total of 2,251,216 elderly in Malaysia (Department of Statistic Malaysia, 2010). Thus, in the year of 2010, 1 out of every 13 persons in Malaysia is elderly. By 2050, the elderly population is predicted to rise to 9 million, which comprises of 22 percent (%) of the total Malaysian population. Furthermore, Malaysia is forecasted to have an elderly population by 2030 when 15 percent of its population are elderly (Samad and Mansor, 2013). Ong et al. (2009) and Momtaz et al. (2012) supported this statement as they stated that the speed of population ageing is quite peculiar and Malaysia will thus, confront the doubling of elderly population in less than 30 years.

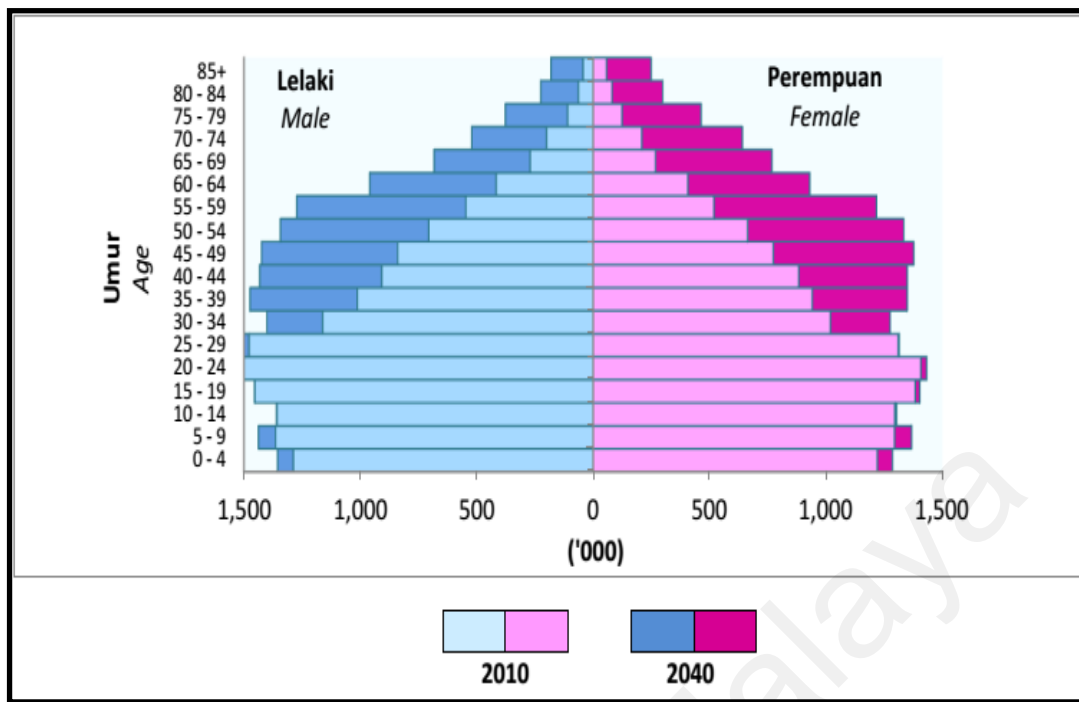


Figure 3.2: Malaysia population pyramid, 2010 and 2040

Source: Department of Statistics Malaysia (2012)

The high number of elderly concentration or better known as the ‘ageing effect’ is a term used to describe the high level of elderly concentration in one particular area. The elderly population in rural areas is becoming progressively larger (Wan Ibrahim and Zainab, 2014). Thus, the “ageing effect” in Malaysia is observed to be more prominent in rural areas compared to the urban areas (Department of Statistics Malaysia, 2012). This is contributed to the fact that young generations opt to migrate to the urban area, in search of trying to secure a better job and better salary. Malaysians elderly are a heterogeneous group with diverse demographic, economic, socio-familial, historical, cultural and religious characteristics (Hamid et al., 2012). This further adds diversity to the needs of the elderly.

3.2.1 Education

Higher levels of education are often linked and associated with higher demand in better

living conditions and health care services among elderly (Lim, 2012). Since education was very costly during the pre-independence era, the elderly living today mostly receive a low level of proper formal education (Masud et al., 2008). This formal education was even more scarcely available to the rural elderly, during the pre-independence era. Wan Ibrahim et al. (2012) who carried out a study, having the objective of trying to analyse the patterns of living arrangement of the older populations in rural Malaysia had found out that majority of his/her respondents did not attend any formal school.

3.2.2 Income and Workforce Participation

A study on “Income Disparity among Older Malaysians” by Masud and Haron (2014) sheds light on the prevalence of the income gap among diverse ethnic groups as well as highlighting on the rural- urban concern of elderly in Malaysia. The data indicates that there were significant differences in sources of income based on gender, ethnicity, stratum, and region. Malay elderly living in the rural areas tends to have lower mean incomes compared to the other groups.

3.2.3 Living Arrangement

In general, in order to ameliorate their economic hardship, an elderly may choose to co-reside with their children (Masud et al., 2008). He further added that majority of elderly must either depend on the financial transfer from their children, co-residency with their children or their own labour income, the amount of assets and stocks (Hamid et al., 2012). Thus, in this sense, we can foresee that living arrangement affects elderly especially in the sense that they may receive direct support from their child (Wan Ibrahim and Zainab, 2014). In short, despite experiencing a gradual breaking up of the extended household structure as a result of a high rate in urbanisation, the Malaysian family is still the main source of care for elderly in Malaysia.

Wan Ibrahim et al. (2012) conducted a study having the objective of trying to analyse the patterns of living arrangement of the older populations in rural Malaysia had found out that majority elderly live in an extended family. He further clarifies that in terms of the living arrangement, although quite a lot of older population living in nuclear family, a high percentage of the elderly prefers to live in an extended family. The study also provides the information on the fact that young elderly prefers to live alone with their spouse as it gives them more sense of freedom. Elderly is also indicated to be more likely to live with their children if they get sicker or older. However, though these elderly may not be living together with their children, they continue to receive other support from their children especially in terms of financial support.

3.2.4 Gender and Ethnicity

Thompson (2014) in his study on “Rural society: Malay and non-Malay” stated that urban-rural location factor plays a role in affecting the life of different ethnic in Malaysia. In a study conducted by Doris et al. (2012), found out that the races in Malaysia that have the fastest ageing rate as compared to other races are the Malaysian Chinese community. Additionally, it is found that majority of female elderly in Malaysia did not own house (Yin-Fah et al., 2010). However, to what extent does the ethnicity and gender is affected by the urban-rural factor is yet to be determined.

3.2.5 Health and Life Expectancy

A study by Minhat and Amin (2012) revealed that the urban-rural factor was among the significant contributing factors to elderly leisure participation and active involvement. In relation to the health aspect of elderly, the active involvement of elderly influences their health status. Additionally, majority of the female elderly in Malaysia is found to be of better health status as compared to male elderly (Yin-Fah et al., 2010).

3.3 Policy and Programs

There have been a number of national policies which can be directly and indirectly linked with the elderly population in Malaysia. Three main divisions of these policies are the National Legislation, Social Protection as well as the National Policies. National Legislation has a few acts under it; Employment Act 1955, Minimum Retirement Age Act 2012, Domestic Violence Act 1994 and the Care Centre Act 1993. Whereas, the Social Protection in Malaysia have 4 acts under it, which is the Pension Act 1980, Employees Provident Fund Act 1991, Employees Social Security Act 1969 and the Armed Forces Fund Board 1973. Lastly, the National Policies have 5 policy and action plan under it. The policies are National Policy for the Older Persons, Plan of Action for Older Persons, National Health Policy for Older Persons, National Housing Policy and National Budget.

Currently, the Town and Country Planning Department (TCPD) had commenced their initiative to provide proper planning and guideline for the development of better housing and environment condition for elderly. As of The year 2016, “Physical Planning Guidelines for elderly” is still under review and being prepared for the Cabinet Memorandum. In relation to housing, basically the Malaysian elderly housing policy are under 2 policy and requirements; the National Housing Policy and the National Policy for the Older Persons (Lim et al., 2014). For the purpose of this research only the National Housing Policy, National Policy for the Older Persons as well as the Plan of Action for Older Persons were further discussed.

3.3.1 National Housing Policy

National Housing Policy has the aim of trying to provide adequate, comfortable, quality and affordable housing to enhance the sustainability of the quality of life of the people.

The three objectives of the National Housing Policy are as follows:

1. Providing adequate and quality housing with comprehensive facilities and a conducive environment
2. Enhancing the capability and accessibility of the people to own or rent houses
3. Setting future direction to ensure the sustainability of the housing sector.

The National Housing Policy have six (6) main thrust, however only Thrust 1 and Thrust 2 mentioned about elderly and are seen to have at least an impact upon the livelihood of all the Malaysian elderly. However, though it has provision which mention on the elderly, it does not specifically focuses or have the requirement to make it compulsory for developers especially, to focus on the elderly housing needs. In 1993, the government established the Low-Cost Housing Fund and further intensified their effort to provide affordable housing by introducing Revolving Fund for Low-Cost Housing (Zin, 2008). However, even with the formation of the Low-Cost Housing Revolving Fund (LCHRF), access to financing is impeding home ownership among the urban elderly (Yusnani, 2006).

3.3.2 National Policy and Plan of Action for Older Persons

The policy and plan of action were formulated based on the review made to the earlier National Policy for Older Persons (1995) and Plan of Action for Older Persons (1998) and was approved on 5th January 2011. Department of Social Welfare (DSW), under the Ministry of Women, Family, and Community Development is the Secretariat for the National Advisory and Consultative Council for Older Person and serves as a focal point for all issues related to older persons. According to the Department of Social Welfare Malaysia, the National Policy for the Elderly aims to establish a society of the elderly who are contented, dignified, possessed of a high sense of self-worth, and

optimising their potential, as well as to ensure that they enjoy all opportunities besides being given the care and protection as members of a family, society and the nation. The National Policy for elderly seems to encourage and focused more on helping the elderly to remain staying at their respective family home. Among housing features mentioned applies to structural aspects of a home, assistive devices for use in daily living, retrofitting, and other public facility which facilitates ageing-in-place (Yusnani, 2006). Home refurbishments are among the main highlights in the policy, as it would improve mobility and safety of elderly around the house. Additionally, safety is among the main element of housing need of the elderly.

The policy did mention on elderly and their housing needs (for example providing amenities such as lift and ramps), although it is still in it very minimum level. However, it does not make it compulsory for the developers especially to follow the National Policy for Older Persons. This makes the policy, only a written policy, on the paper, but does not being properly conducted in the real world. Since Malaysia is still lacking, in various areas when it comes to the part where elderly is involved. Thus, learning from the best providers is invaluable to establish best practice among the providers in Malaysia (Sulaiman, 2011). In sum, we can conclude that as one of the developing countries, Malaysia is still backward in terms of the provision of homes for the elderly as compared to other countries such as Singapore.

3.3.3 Physical Planning Guideline for the Elderly (Garis Panduan Perancangan Fizikal Bagi Warga Emas)

Although it is still being drafted, basically, once implemented, the Physical Planning Guideline for the Elderly in Malaysia will serve as guideline to plan for the elderly living settlements and supporting facilities, and also to support social programmes

through physical planning. This guideline is drafted with the aims of providing guidance to government agencies, non-governmental organisation (developers, private companies, individuals, etc) and other parties involve in the provision of settlement, needs and elderly facilities, as such:

- i. Plan physical development preparation of settlement for elderly, which incorporates the concept of ageing in place that meets their universal design needs.
- ii. Providing facilities and support services for the elderly
- iii. Having development control for elderly settlements and processing the planning approval.

Upon implementation, this guideline will not only provide definition on elderly and their accommodation options, but also, will give the guidelines on design and the mechanism on planning development of the elderly accommodation units.

3.4 Housing Policy and the Malaysian Elderly

Housing policy is one of the mechanisms used by the state to intervene in the market. Certainly housing differs from the three other pillars of the welfare state of social security, health, and education (Sulaiman et al., 2006). The provision of adequate housing for everyone requires action not only by governments but by all sectors of society, including the private sector, non-government organisations, communities and local authorities, as well as by partner organisations and entities of the international community (UN-HABITAT, 2011).

In Malaysian practice, via the Ministry of Housing and Local Government (MHLG), the government has been seen to initiate several housing policies to the nation since its first and second Malaya Plan (1956-1965) up to the latest tenth Malaysia Plan (2011-2015).

The Ministry of Housing and Local Government is responsible in developing as well as controlling the housing provisions in Malaysia, regardless of its form of being formal or informal modes of housing policy and provision (Sulaiman et al., 2005). He further added that formal housing provision represents housing which is produced through the official channels of recognised institutions (such as the planning authorities, banks and building and land development companies) and following the legal practices formally, Malaysian building standards as well as the land use and subdivision regulations.

Market-oriented perspective is the Malaysia's formal mode of housing provision. In Malaysia was supplied within a market-oriented perspective. However, this approach is believed to lead increased inequality and more problems for those who really need help such as people with vulnerabilities. It has been shown that Malaysia also incurred the same problem, where elderly are far left out of the picture of getting proper access to better housing. Several researchers have highlighted the fact that, up until today, it can still be seen that there is no specific provision design in order to cater the needs of the elderly in terms of their housing needs (Lim, 2012; Yusnani, 2006; Sulaiman et al., 2005). The Malaysian housing units are built by the developer based on very general needs of the family, without considering the special needs means for households having some special characteristics such as having a frail elderly living in the house (Reeves, 2006).

However, in Malaysia, it is shown that much emphasise are given to only the poor and lower income groups with the increasing number of People's Housing Project (Program Perumahan Rakyat or PPR) low cost high rise flats developed by the National Housing Department (Jabatan Perumahan Negara) in Kuala Lumpur since the year 1998 (Roslan et al., 2013; Zainal et al., 2012). Additionally, the government also uses the mechanism of providing at least 30 percent of the house to the lower income group or

giving quota to Bumiputera. Sulaiman et al. (2005) agree to this, as he stated that other people with special needs were very rarely discussed in the Five Years Development Plans.

The Housing Development (Control and Licensing) Act 1966, is the main legislation in Malaysia that governs the developers in the housing and construction industry. Under the different state, local councils and other governmental agencies, the legislation, guidelines, rules and regulations as well as by-laws may vary. However, to disappointment, none of the legislation set requirement for developers to design and build housing in such way that it considers the needs of the elderly and people with disability (Yusnani, 2006). Sufian (2012) further stated that it is important that the Uniform Building by Laws Act 1984 be amended in such way that it considers the housing needs of people with disability and elderly. This can be done by installing certain facilities and features to the house, such as grab bars and pole, non-slip flooring, wheelchair-friendly space and other features that can make the house more elderly and disabled friendly house.

In summary, it can be concluded that housing for elderly receives little attention in Malaysia. Malaysia is still far fetched away from being able to fully implement and integrate a good policy and regulations which can contribute for the betterment of the elderly housing quality and conditions in Malaysia.

3.5 Care Arrangement for the Malaysian Elderly

In Malaysia, the delivery of social welfare and care arrangement of elderly can be divided into two main sub-groups; formal system and informal system (Yusnani, 2006). Doling and Omar (2002) supports this idea as he elaborated further on the theoretical underpinning of care where he stated that formal care comes in place when the needs of

the older person exceed the resources of the informal care system. The basic idea is that the informal care is actually the 'expectations that the family, hold the main role and responsibility in protecting the frail and needy individual against misfortune'.

In the effort of meeting the care arrangement and housing needs of elderly, Malaysia offers a small range of residential and institutional care options for the elderly community. In this effort, 3 main providers are involved. The government, with its provision on the residential homes and long-term care for low-income earners; the private party, which are generally moved by the profit basis on elderly care homes and lastly the non-governmental organisation (NGO) or party which is primarily moved by the sympathetic and caring initiatives of persons involved in the organisation (Sulaiman et al., 2006).

3.5.1 Informal Care Arrangement

In the informal system, social welfare providers depend on the family and group support from the community (Yusnani, 2006). Countries that still practices typical Asian culture such as the Malaysians, have a long tradition of co-residing and practicing the informal care arrangement (Ambigga et al., 2011). In Malaysia, it is customary for elderly to live with their children (Yusnani, 2006) Thus, providing care and financial support for the elderly are the general responsibility of the family. Older people in Asia prefer staying with families rather than living alone and they consider having no filial children as bad (Chong et al., 2006; Rashid et al., 2012).

In the case of having formal care, the social welfare providers are made up of professionals that are paid. In terms of the informal care system, the elderly are mainly care and dependent upon their family and support from the community. The majority of the Malaysians held strong to the belief that the well-being of an individual in a family

and an elderly in a family is the responsibility of the family itself (Doling and Omar, 2002).

Thus, this supports the fact that Malaysians held strongly to the informal care arrangement. However, the housing stocks in Malaysia are unsuitable for the elderly as developers and community lacks exposure on the proper housing design and guidelines for elderly housing (Bond et al., 2007). It is observed that in Malaysia, the existing housing developments does not take into consideration of the elderly housing needs and are thus, very ill suited to the needs, requirements and competencies of the elderly. If we were to maintain the system of maintaining the elderly in the family, it must, however, be supported with better living environments.

3.5.2 Formal Care Arrangement

The role of a formal infrastructure provider starts at the national level at the Department of Social Welfare (DSW) to the lowest level where other involving party such as profitable organisation involves in providing for the elderly. The department deals mainly with welfare services and is responsible for the National Social Welfare Policy. It is responsible for providing care, protection and rehabilitation to orphans, juvenile delinquents, women and girls under 21 years old who are exposed to moral danger, the physically and mentally disabled, and the elderly. Among the formal infrastructure for the elderly provided by the Department of Social Welfare includes Nursing Care Home for the Elderly (nCHfE), Residential Care Home, Home help service as well as the Senior Citizens Activity Centre.

Apart from Public Residential Care Home for the Elderly (PbRCHfE) or better known as Rumah Seri Kenangan, the Department of Social Welfare (DSW) also provides nCHfE, which is known as Ehsan Home (better known as the Rumah Ehsan, RE). The

main objective of establishing RE is to provide a comfortable and tranquil surrounding, care, treatment and shelter to the old and sick elderly. The Rumah Seri Kenangan has the objective of providing care, treatment and protection to the elderly poor in order to ensure the welfare and quality of life. Rumah Seri Kenangan not only acts as a shelter and protection place for them but also provides elderly with proper counselling, recreational facilities, medical treatment, occupational rehabilitation as well as providing them the place and source for religious facilities (Selvaratnam et al., 2012).

The Home help service on the other hand, is focused only on the prime area of Klang Valley. This programme is beneficial as it provides services to elderly living alone or with family but need help. Volunteers make home visits to help elderly run daily chores of cleaning house, accompany elderly shopping, paying bills and health care. Home Help Services are implemented by Voluntary Welfare Organisations (PSK) such as Central Welfare Council Peninsular Malaysia (MPKSM) and USIAMAS Welfare Association (GEM). Additionally, the government also initiated the Seniors Activity Centre (PAWE). It was established to provide facilities and activities for elderly especially those who live alone during working hours (family members / caregivers are not at home or at work).

In the context of Malaysian provision, the provision for housing elderly which include the formal and informal care for elderly is considered as social policy programmes. This is so as the budget allocation and management for this is in generally under the supervision of the Ministry of Women, Family and Community Development (MWFCD). To be more specific, the Department of Social Welfare Malaysia managed the provisions in relating to elderly housing.

3.6 Housing and Living Options for the Malaysian Elderly

Malaysia is one of the countries that epitomise the characteristics of a country that is slowly beginning to prepare for the need of elderly in terms of specialised housing (Yusnani, 2005). Housing options for the urban middle elderly are limited, with charity homes for the homeless and destitute elderly on one end and private nursing homes for long-term care on the other.

On the other hand, housing options for rural Malaysians elderly are lacking and remains as an underdeveloped market. A lack of meaningful housing options means that Malaysians elderly are left with few choices when it comes to housing and living arrangements in later life (Hamid et al., 2012). The existing housing choices available for elderly in Malaysia falls into three (3) categories: Family home (ageing in place), the elderly care institutions and the retirement village.

3.6.1 Family Home (Ageing in Place)

Elderly generally prefers ageing in place within their own house, despite having to live alone or live within their extended family (Li and Chen, 2011). Besides that, elderly would also feel more comfortable in an environment they are used to and attached to (Syed Abd Rashid et al., 2006). Psychological congruence explains the elderly high desire towards ageing in place. Ageing in place can be simply defined as being able to continue living in one's own home or neighbourhood and to adapt to changing needs and conditions (Fange et al., 2012).

If the elderly continue on residing on his own home. Then, he is considered as ageing in place. Countries that still practices typical Asian culture such as the Malaysians, have a long tradition of co-residing (Ambigga et al., 2011). In Malaysia, living with children is a norm and customary (Yusnani, 2006). The basic concept responsibility in terms of

taking care and providing financial support is the general responsibility of the family. Asian elderly considers having no filial children as bad and thus opt to stay with their families instead of having to live alone (Chong et al., 2006; Rashid et al., 2012).

Research conducted in Malaysia on respondents of the age 40-55 years indicated that 56% of the respondents have no plans to move out of their current house (Syed Abd Rashid et al., 2006). This is a strong sign that as the Malaysians age, they prefer to ageing in place. Additionally a study on “housing planning for old age amongst civil servants in Malaysia”, shows that more than two-third of an elderly plan to stay in their current house after retirement (Nurizan and Hamid, 2005). This adds on the strong indication that the elderly prefer to age-in-place. In sum, it can be concluded that elderly in Malaysia prefers to age-in-place because of the psychological benefit of remaining in the same, familiar and less uncertain environment (Mohd Aini et al., 2015).

3.6.2 Elderly Care Institutions

Elderly care institutions are also another form of community housing for the elderly. Nursing homes and group homes fall under this category. These institutions can be further segregated to 3 categories: Free, low fee and full fee establishments. At present, an optional living arrangement for Malaysian seniors besides core siding with adult children and family members is placing their elderly in elderly care institutions.

However, such act and the option are primarily seen by the Malaysia community as a violation to cultural expectations. Although such act is being highly stigmatised by the community, placing elderly in such institutions is becoming a common practice due to the increase in need and demand (Dahlan et al., 2010). Government through the Social Welfare Department Malaysia (JKMM) provides free old folks homes for the needy elderly.

However, in Malaysia, it is a cultural view and perspective that having one's elderly staying at such home as the reflection of the children's failure to carry their rightful obligation to take care of their frail elderly parents. Aiming to provide care, treatment and protection to the poor elderly in order to ensure the welfare and quality of life, the Rumah Seri Kenangan is the most obvious effort that the government tries to give in catering the housing needs of the elderly (Social Welfare Department Malaysia, 2012). The Malaysian government in their effort to protect the chronically ill elderly had introduced and set up homes for the chronically ill elderly. Likewise with the Rumah Seri Kenangan, the Rumah Ehsan also provides the same facilities for the elderly, a bit of a twist only occur in terms of the medical assistance that the elderly in Rumah Ehsan get. The elderly in Rumah Ehsan gets more emphasis on the medical aspect of the elderly.

The housing issues relating to elderly also receive attention from the private sector in Malaysia. Nursing homes, for example, is the common form of elderly housing and institutional care facility created by the charitable private party. Close monitoring is done by the government on these types of homes although they are fully supported and financed by a private party. Usually, these types of private nursing homes or elderly care homes are in a smaller size compared to the ones run by NGO or government. In 2001, only 188 were licensed by the Social Welfare Department as qualified care centres, of which 29 were nursing homes for older people, accommodating about 1000 people. Seven homes were run by NGOs and the remainder by private businesses.

Considering the growing need for housing for the elderly in Malaysia, the government is continuously processing NGOs and private organisations' applications to run elderly care centres. With this boost of healthy competition in this matter, the quality of care and facilities in these care centres are expected to improve in

the long run, provided with the government's constant monitoring and firm set of standards that these centres need to adhere to (Ong et al., 2009).

3.6.3 Retirement Village

i. Retirement Village

Retirement village is a relatively new form of housing to appear on the elderly housing variety and is still a novel idea in Malaysia (Grant, 2006). Retirement villages are established in such way that it can cater the needs and demand of the elderly in terms of having to live independently in a facility that is both healthcare and socially equipped. A retirement village does not similar to an old folks' home. The old folks' home will accept elderly community to stay with basic facilities provided for a fee charge for them. On the other hand, a retirement village is a retirement scheme that is purposely designed to fulfil the special needs of retirees, especially from the high-income group. By contrast, residential aged care is viewed negatively by many older people, their families and the community in general (Heywood, 2004; Cheek et al., 2006).

Having to stay in a retirement village is a wonderful idea, however, the financial issues pertaining to the affordability of the senior citizens to live in such congregate housing needs to be considered. With the ongoing rise in the Malaysia's property prices, it is essential for the elderly who plans on staying in retirement village to have enough savings or be financially and economically stable in order to pay the fees and rents incurred. A number of professional developers are seeking opportunity and keeping an eye on the field of retirement and assisted-living style projects, aimed at the elderly an untapped market in Malaysia (Tan, 2012). Among the example of an available retirement village in Malaysia is the Green Leaf Retirement Resort, GreenAcres Retirement Village as well as the Platinum Residence Retirement Village.

ii. Pondok Retirement Village

The concept of religious housing in Malaysia is generally referred to as Pondok and in Malaysia, Pondok system has been as one of the choices for a retirement village in Malaysia (Wan Ibrahim et al., 2012). According to Hashim et al. (2011), the term Pondok system can be defined as an inn or hotel which also described as “a centrally located building, usually teacher houses surrounded by small house and dwelling”.

The basic establishment of Pondok is purely based on the religious education orientation, unlike the basic establishment concept of retirement village which focuses more on the housing and facilities for elderly (Wan Ibrahim et al., 2012). In addition, to the typical retirement village facilities, the latest concept of a retirement village in Malaysia embeds religious activities it has been developed for elders to gain continuous religious knowledge and to apply a continuous religious experience (Sanmargaraja and Wee, 2012). A study by Wan Ibrahim et al. (2012) on the Pondok as an alternative living option for elderly in Malaysia have pointed out five reasons why the elderly choose Pondok as one of the housing options for retirement; able to be more consistent in performing their ibadah, more convenient and easy to join fellow jemaah at mosque, able to mix and mingle around with peers, able to gain more religious knowledge, as well as to increase deeds for afterlife purposes. Therefore, this reasons out why the Pondok system is the favourite alternative housing and living option for the muslim elderly in Malaysia.

Sufian and Mohammad (2013) in his study of Pondok system in Malaysia had looked into the legal perspective of the system. In his study, he stated that under the Pondok system, the landowner or the trustee are the one who manages the Pondok for students as well as for the elderly. As it is a religious place, they may build small classroom

along with mosque in that particular land owned by themselves or by wakaf of others. This section had provided general idea on what are the housing options available for the Malaysian elderly. The next section will look into the future housing direction of the elderly in Malaysia.

3.7 The Future Housing Direction for Elderly in Malaysia

This section shall elaborate on the future housing direction of elderly in Malaysia. It is imperative that by 2030 when Malaysia achieved the status of an Ageing Nation, the necessary blueprint to promote and support ageing in-place are set and the housing aspiration of the elderly are met. Hence, appropriate planning should start from now as it takes considerable time and effort to develop the best policy so as to ensure that the housing needs and aspirations of the elderly are fulfilled.

Learning from other Asian countries that also experience ageing (refer to Chapter 2, Section 2.6), it can be deduced that Malaysia can further improve elderly's future housing conditions and quality by emphasizing on 4 core aspects (refer to Figure 3.3) that comprise of the following: Strengthen design requirements related to elderly housing, introduce housing remodelling and upgrading programme, implement Elderly housing related grants and rental schemes as well as promoting more on the benefit of retirement village and nursing homes. The strengthening of the elderly housing policy and design requirements with which owners/developers of buildings must or should be of prime concern in order to avoid unjustifiable hardships for people with disabilities (refer Figure 3.3). Taking the example of Singapore, with their Studio Apartment Scheme (SA) which had been designed in such a way that it meets their elderly housing needs (Joo and Wong 2008). This type of scheme is crucial for Malaysian elderly living in urban area.

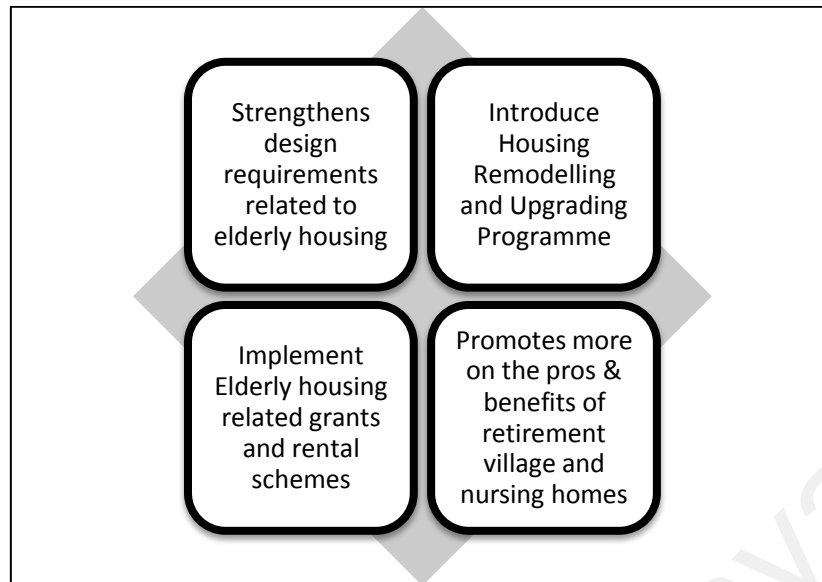


Figure 3.3: Future housing direction of the elderly housing needs issue

The housing remodelling and upgrading policy/ scheme may greatly improve the current housing condition of the elderly. Malaysia has yet to have such kind of scheme. Singapore for example, has their Enhancement for Active Seniors (EASE) under the Home Improvement Programme (HIP) (Teo and Lin, 2011). Elderly were able to apply for elder-friendly features such as grab bars in the bathroom / toilet and non-slip floor tiles through such programs. Hong Kong implemented quite similar scheme, where they implement the “Integrated Building Maintenance Assistance Scheme” (Tsien, 2014). Having such scheme for the elderly may greatly improve their current housing condition. Malaysia need to look into the viability of “Home improvement Programme” because the elderly mainly does not have additional money to buy other houses that best suits their current situation. Rural elderly for example, may apply for stairs and ramps home improvements whereby they are entitled to add ramps as well as handrails all along their staircases. This may facilitate their movement.

On the other hand, elderly housing and rental scheme can be categorised into 2 types, which is the monetary and physical. Taking the example of Japan, they have their own

recommending Cohabitation Policy, where the monetary factor was used to encourage family and friends to cohabitate with the elderly (Park and Lee, 2008). Additionally, Japan government also give physical help to the elderly by having rental houses mainly for elderly (Kose, 2008). Looking into the monetary perspective of the elderly, they often regard their current house as their main asset. Currently in Malaysia, there is no alternative for them to monetise their house. Among the best alternative to help these group of elderly are been seen implemented by Singapore through their ‘Subletting of Whole Flat Scheme’.

The Singapore government allows elderly HDB flat owners to monetise their flats through the subletting scheme and studio apartment scheme (Rahman, 2013). Elderly HDB flat owners are allowed to downgrade their unit to a smaller unit, or sublet their spare room or their whole flat. Having to be able to sublet part of their unit or their whole unit, the elderly owner is seen to be able to move in with their married children and monetise their HDB unit. Thus, this meets the elderly needs of not wanting to lose their house by selling them, making them feel secure and alleviate the “asset-rich, cash poor” phenomenon. This monetary system is especially needed by the urban elderly. There are cases whereby urban elderly are living in big houses, however are restrained as they have no source of income and are forced to live in a high cost area. Having the ‘Subletting of Whole Flat Scheme’, may greatly alleviate their “asset-rich, cash poor” phenomenon.

For developed countries such as Japan and Korea, it is a norm for the elderly to live in retirement village and nursing homes. This is in contrary with the current Malaysian culture which hold strong to the values of filial piety. However, trends from aged and developed Asian countries have shown that it is vital for Malaysia to prepare for the future whereby our cultural way of filial piety can no longer bear the growing housing

needs of elderly. Therefore, it is of utmost important for the government to start planning and encourage for more retirement village as well as nursing home to be built in Malaysia.

This includes (but is not limited to) strengthening and developing policy and standards related to retirement village/nursing home, providing training, guidance and assistance to the retirement village/nursing home and etc. Promoting the benefit of staying in such places is of the utmost importance, as awareness is the key. Thus, having reviewed the overall care arrangement, housing options available for elderly in Malaysia as well as the direction of elderly housing in Malaysia, it is found that Malaysia is still lacking, as elderly are left with very limited choices. This is especially true in the rural areas of Malaysia. All in all, there are still rooms for improvement in terms of elderly housing options and policy in Malaysia.

3.8 Summary

Based on the foregoing discussion, we are able to summarise that Malaysia has its own unique trait. However, up until now, Malaysia still lacks in proper policy, planning and guidelines in tackling the elderly housing needs issue. Being a multi-racial country and confronting the doubling of elderly population in less than 30 years (Momtaz et al., 2012), makes it essential for Malaysia to have a proper housing plan for elderly. In previous chapter, the policy, plan and ways of other countries (example, Singapore and Japan) in tackling the elderly issue had been discussed. This chapter entails the scenario of elderly, care arrangement and housing options available for elderly in Malaysia. Therefore, both Chapter two and Chapter three had laid foundation on better understanding of the elderly housing scenario in Malaysia and other countries. Next chapter shall further discuss on the case study areas of Kuala Lumpur and Kelantan.

CHAPTER 4: CASE STUDY AREAS (FEDERAL TERRITORY OF KUALA LUMPUR AND KELANTAN)

4.1 Introduction

This chapter aims to give further understanding on the current situation and related trends of the elderly, generally in Malaysia and specifically in Federal Territory of Kuala Lumpur and Kelantan which are the frame of this research. The first section of this chapter provides the background of Malaysia in three aspects; politics, economy and social aspect. The next section proceeds to examine the urban-rural contexts and aspects in Malaysia. The last section of this chapter then moves to a more local level and draws on the background of Federal Territory of Kuala Lumpur (KL) and Kelantan.

4.2 Background on Malaysia

Malaysia has two distinct parts, which is known as the Peninsular Malaysia and the East Malaysia (refer Figure 4.1). Peninsular Malaysia covers the state from the very tip of Perlis going down to the very bottom of the state of Johor. On the other hand, the East Malaysia compromise of Sabah and Sarawak. Overall, Malaysia covers a wide area of around 329,847km² and, is made up of 3 Federal Territories and 13 States. The Federal territories include the Federal Territory of Kuala Lumpur, Federal Territory of Labuan and the Federal Territory of Putrajaya. On the other hand, the 13 states of Malaysia include the state of Johor, Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Perak, Perlis, Penang, Sabah, Sarawak, Selangor as well as Terengganu state.

In terms of politics, Malaysia is a country that practices the system of Parliamentary democracy along with constitutional monarchy (Khoo and Loh, 2014). Additionally, the government has its own branches known as the executive, legislature as well as the

judiciary. Every five years, the party that wins the election will form and administer as the new federal government. The UMNO party has held power as the administrator and government since the Malaysia's Independence Day in 31st August 1957.

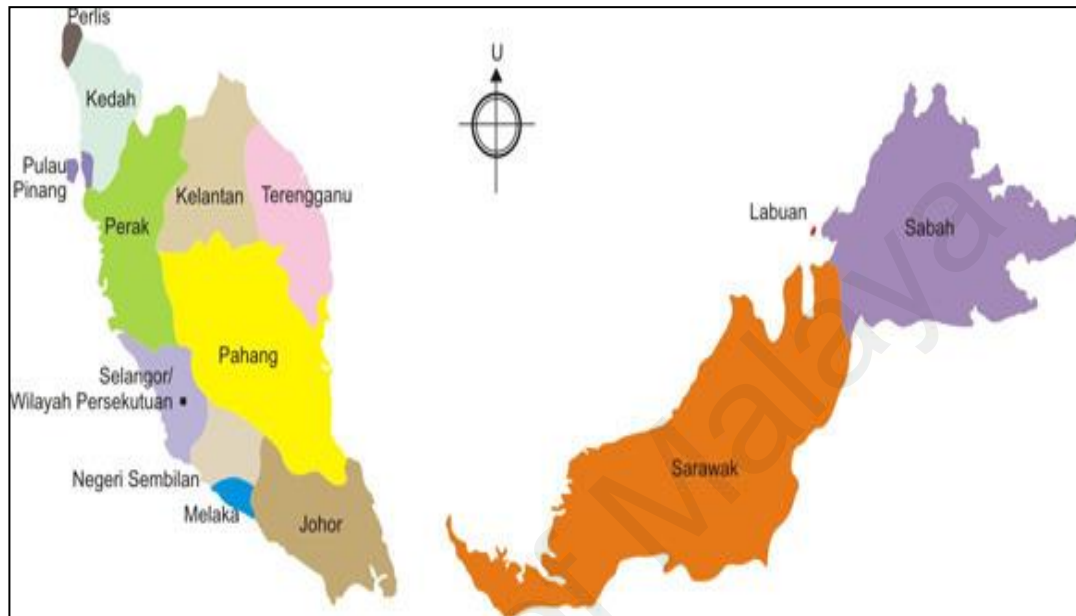


Figure 4.1: Map of Malaysia

Source: <http://www.pmo.gov.my/>

In terms of politics, Malaysia is a country that practices the system of Parliamentary democracy along with constitutional monarchy (Hai, 2002; Khoo and Loh, 2014). Additionally, the government has its own branches known as the executive, legislature as well as the judiciary. Every five years, the party that wins the election will form and administer as the new federal government. The UMNO party has held power as the administrator and government since the Malaysia's Independence Day in 31st August 1957.

Additionally, Malaysia is also home to more than 28 million people (Department of Statistics Malaysia, 2010). Being a multiracial country, Malaysia is home to a variety of races and ethnics. Population data provided by the Department of Statistics Malaysia (2010), indicates that Malaysia is dominated by the Malay ethnic. The overall

population of the Malay ethnic is around 63% of the Malaysian population, followed by the Chinese with around 25%, other bumiputera with around 12% and Indians with its percentage of 7% (Department of Statistics Malaysia, 2010).

The main contributors to the Malaysian economy include services, manufacturing, agriculture, mining and construction (refer to Figure 4.2). Malaysia also has natural resources such as petroleum that help to contribute to the country's income. The largest contributor to the economy in Malaysia is the services sector with 54.8%. The Malaysia's economic growth remained sound at 4.8 percent in the fourth quarter in 2014 as compared to 5.3 percent in the previous quarter. Services and manufacturing sectors continued as the main contributors in the supply side while, on the demand side, the economy is mainly driven by the domestic consumption of the private final consumption expenditure and gross fixed capital formation.

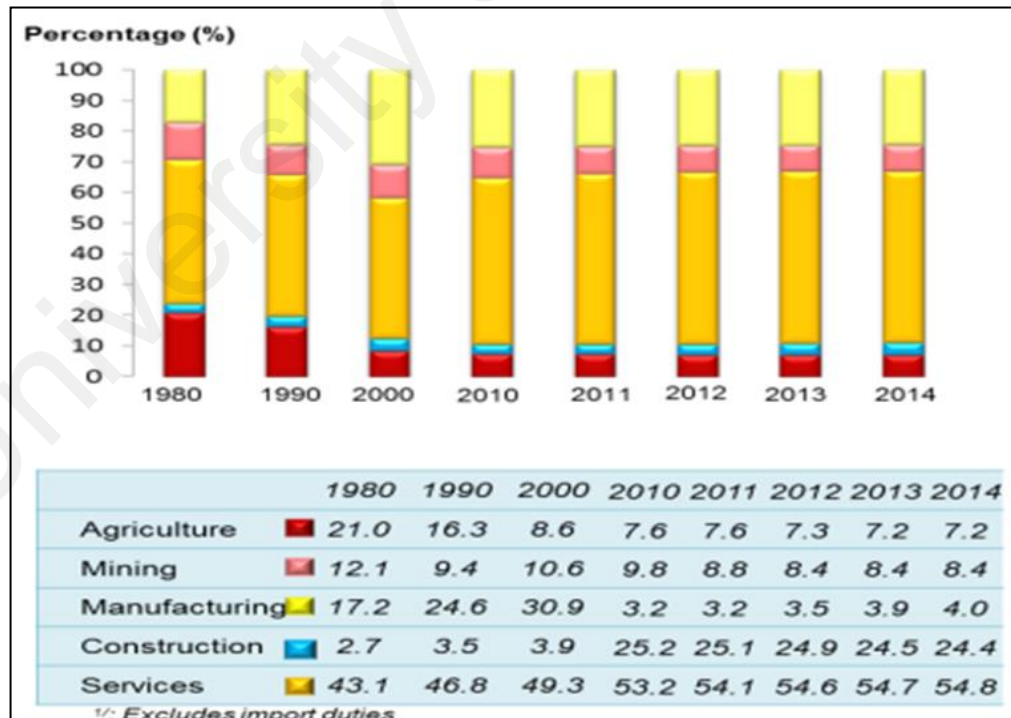


Figure 4.2: Structure of production 1980-2014

Source: Economic Planning Unit (2013, p. 9)

Another essential point when it comes to the economy is the aspect on household income. According to the household income survey, it is revealed that with the average growth rate of 7.2%, the Malaysia's average household income has increased from around RM 4,025 in 2009 to RM 5000 in the year of 2012 (Economic Planning Unit, 2012). However, based on Table 4.1, we can observe that there is still a wide gap between the income levels of the urban and rural areas. The income gap between the urban and rural area had increased from 1.8 in the year of 2009 to 1.9 in 2012.

Table 4.1: Malaysia's mean monthly household income by strata

Malaysian Ringgit (RM)			Annual Growth Rate (%)
Year	2009	2012	
Malaysia	4,025	5,000	7.2
Urban	4,705	5,742	6.6
Rural	2,545	3,080	6.4

Source: Economic Planning Unit (2012)

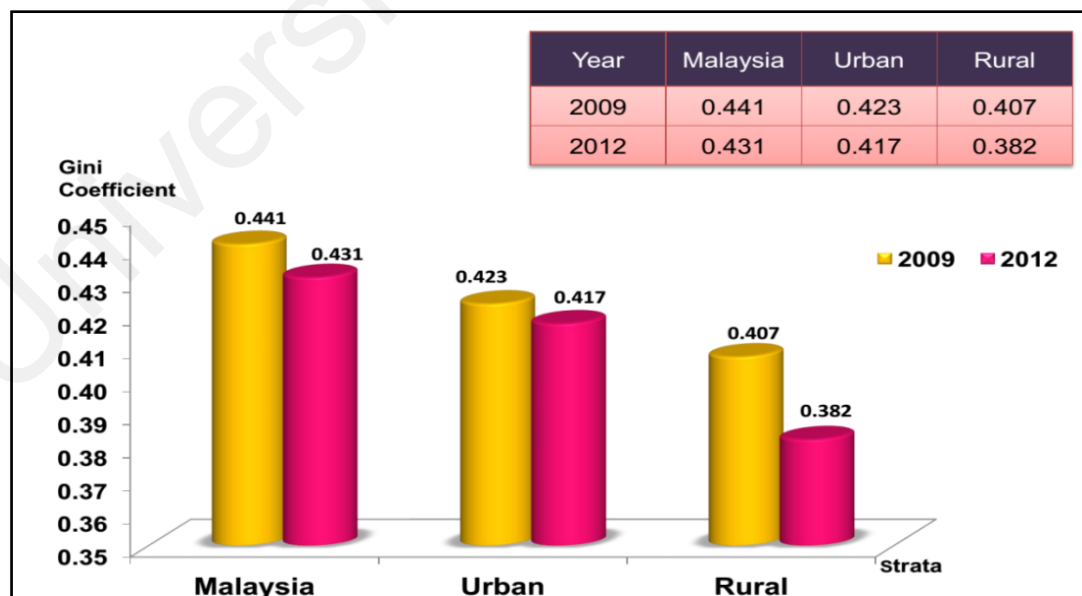


Figure 4.3: Gini coefficients by strata 2009 and 2012

Source: Department of Statistics (2012)

On the other hand, the trend of migration rate from rural to urban areas has increased from 11% in 1957 to 71% in 2010 (Department of Statistics, 2010). This thus leads to the increase in urbanisation rate. It was reported that in 2012 the Malaysia urbanisation level is around 71% and the GNI per capita for Malaysia is RM 22,000 (Department of statistics, 2012). Moreover, it was reported that the Malaysia's Gini coefficient shows a slight improvement with 0.431 in the year of 2012, compared to in the year 2009 with 0.441. In the same way, it is also noted that in terms of the rural area, there is a significant improvement in the Gini coefficient where it was recorded that the Gini coefficient of the rural area in Malaysia is 0.407 in 2009 and 0.382 in 2012. Gini coefficient index helps to measure the inequality degree in terms of the distribution of income in a country.

So, it is clear that the mean monthly income in the urban area is slightly higher than the mean monthly income of Malaysia. This data on income level will further support arguments on the income level of people living in the urban and rural area. Therefore, the elderly housing needs comparison between urban and rural area can be further examined based on this supporting data.

4.3 The Urban-Rural Context in Malaysia

Urbanisation can be defined as a process in which an increasing proportion of the entire population lives in cities (Davis, 2011). Davis further added that urbanisation can also be defined as the increase over time of the proportion of the total human population in urban as opposed to the rural area. According to the Department of Statistics Malaysia (2012), the Malaysia had shown a steady and gradual increase of urbanisation level (refer to Figure 4.4). As of the year 2000, Malaysia had recorded a total of 62% of urban population and in 2010, the urban population percentage had increased to around 71%.

This shows that there had been an increase of 11% in urban population in Malaysia between the year of 2000 to 2010.

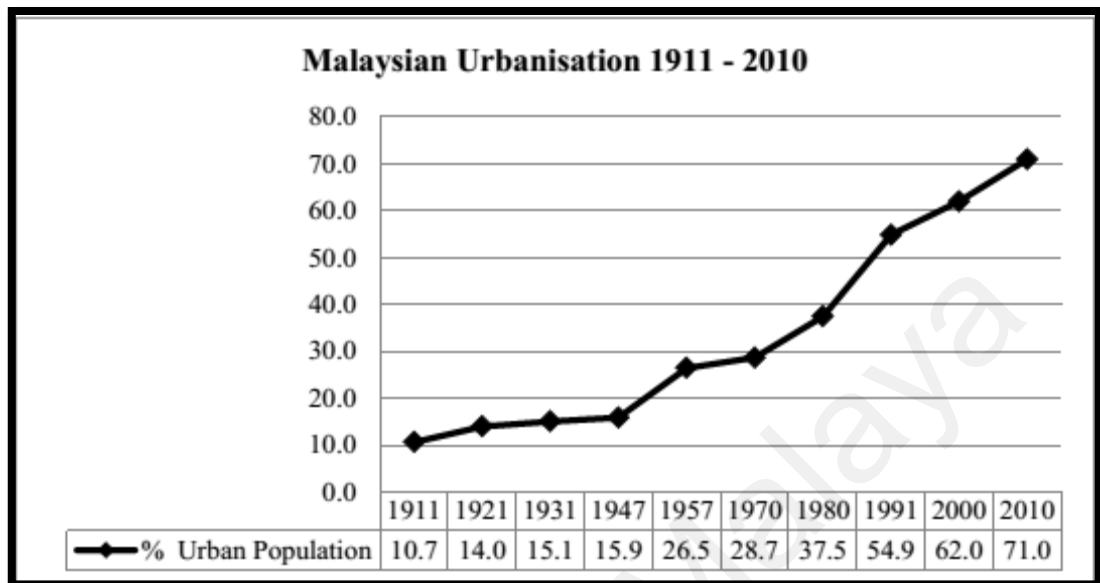


Figure 4.4: Urbanisation rate in Peninsular Malaysia (1911-2010)

Source: Department of Statistics Malaysia (2012)

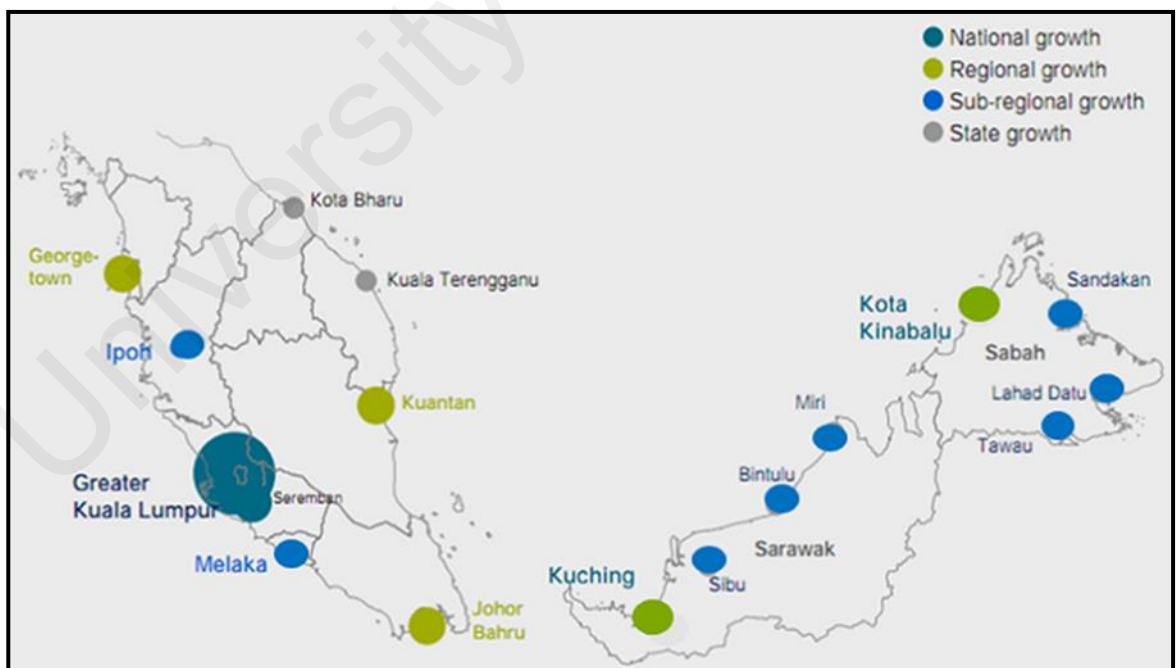


Figure 4.5: Malaysia's urban growth

Source: Economic Planning Unit (2012)

In the context of Malaysia, the urban population is primarily concentrated within 6 major areas (refer Figure 4.5). This area includes the Kuala Lumpur, Georgetown (Penang), Johor Bahru (Johor), Kuantan (Pahang), Kota Kinabalu (Sabah) and Kuching (Sarawak) area. Kelantan has the lowest urbanisation level as compared to all the states in Malaysia (Department of Statistics Malaysia, 2010). With the continuing process of urbanisation and the outmigration of younger population, the ageing pattern in a rural area is likely to continue (Ong et al., 2009).

There are two ways of measuring the degree of urbanisation of a population. The first, urban population describes the percentage of the total population living in urban areas, as defined by the country. The second, rate of urbanisation, describes the projected average rate of change of the size of the urban population over the given period of time.

Currently, there is no consensus of the term 'urban'. "Urban" is variedly defined in Malaysia. According to 2010 Population and Housing Census by the Department of Statistics, Malaysia (DOS), urban is defined as gazetted areas with their adjoining built-up areas which had a combined population of 1,000 persons or more at the time of 2010 Census.

In other word, according to the definition by Malaysian Department of Statistics, the rural area will only be limited to the traditional villages which normally have a population of fewer than 1000 persons (Isa, 2010). This does not properly represent the rural area in Malaysia because there are settlements with populations more than 1000 such as the townships developed by FELDA and FELCRA, but could not be considered as urban area due to lack in amenities, facilities, locational remoteness as having agricultural activity as main income.

The Town & Country Planning Department (TCPD) also has its own definition of urban as mentioned in the National Urbanisation Policy document. The TCPD defined urban as gazetted areas with their adjacent built – up and consolidated areas located within the urban limits and must have a minimum population 10,000 people and at least 60 % of population are employed (15 years and above) in non-agricultural activities. Additionally, the estimated population density must be at least 50-60 persons per hectare, having enough urban amenities and facilities as well as having their own District Administrative Centre (if the population is less than 10,000 people).

The seemingly contrasting urban definition issued both Department of Statistics (DOS) and the Town & Country Planning Department (TCPD), might lead to confusion for agencies involved in planning, formulation and implementation of government policies and programs as to which definition of urban to be used. Thus, in order to avoid confusion for the purpose of this research and in the effort of trying to determine the rural area and urban area, the Report on “Profil Bandar” provided by the Town and Country Planning Department 2009 for each state in the east Malaysia is being used.

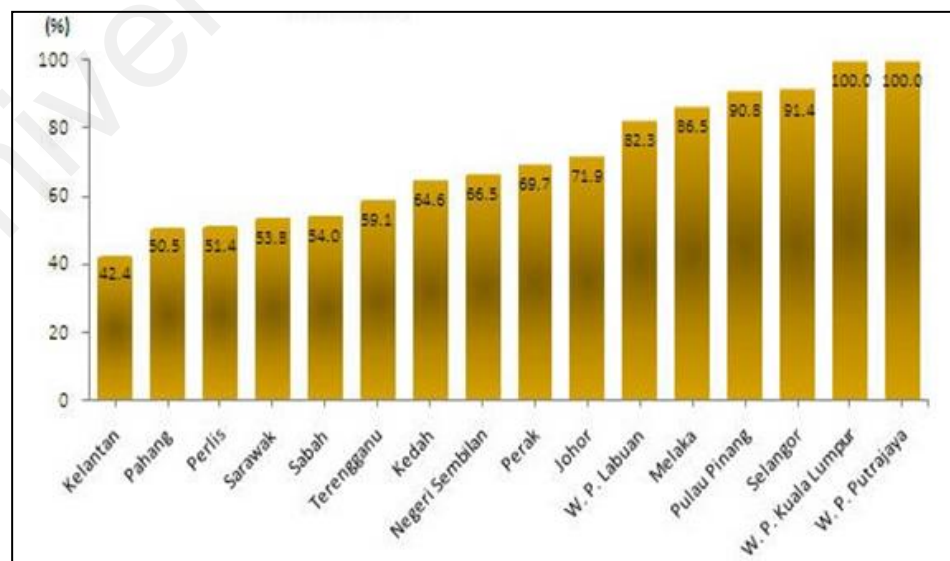


Figure 4.6: Urbanisation rate by state in Malaysia, 2010

Source: Department of Statistics Malaysia (2010, p. 4)

Based on Figure 4.6, it can be drawn that the most urban area in Malaysia in 2010 is the W.P. Kuala Lumpur (100%) and the W.P. Putrajaya (100%). On the other hand, Kelantan remains as the area having the least urbanisation level in Malaysia with only 42.4% of urbanisation.

4.4 Federal Territory of Kuala Lumpur

The Federal Territory of Kuala Lumpur is the capital and largest city in Malaysia. The development vision for Kuala Lumpur is : “Kuala Lumpur – A World Class City” and its economic catchments encompass the entire country. In addition to this, the Petronas Twin Tower had become the iconic symbol of Malaysia’s aim in achieving more futuristic development and achieving the world class city.



Figure 4.7 : Map of Federal Territory of Kuala Lumpur

Source: <http://www.townplan.gov.my/>

For the purpose of this study, the covered area for Federal Territory of Kuala Lumpur includes Lembah Pantai, Wangsa Maju, Setiawangsa, Cheras, Seputih as well as Bandar Tun Razak (refer to Figure 4.7). Respondents selected were mainly living within the specified area.

Despite the executed relocation of federal government administration to Putrajaya, certain government institutions such as Bank Negara Malaysia, Companies Commission of Malaysia and Securities Commission as well as most embassies and diplomatic area still remains within the Kuala Lumpur area. Though some decrease in the city role is felt, but the Kuala Lumpur remains intact as Malaysia's main economic and business centre. At the same time, Kuala Lumpur and its conurbation form a region that is the most industrialised and economically the fastest growing in the country.

According to the Department of Statistics Malaysia (2010), the total population in the Federal Territory of Kuala Lumpur area is around 1,674,621. This means that, a total population of 1,674,621 people lives within a land area of 244 km. Table 4.2 divides population of 50 years and above into their respective age group. The total number of elderly shown in the table is a sum of the elderly (Malaysia adopted 60 years and above as cut off point to define elderly).

By referring to Table 4.2, it can be inferred that as of 2010, there are around 127,825 elderly (people of the age 60 years and above) and a total of 278,702 people are of the age 50 years and above in Malaysia. According to the Ministry of Federal Territories (2012), the Federal Territory of Kuala Lumpur is governed under the Dewan Bandaraya Kuala Lumpur (DBKL). In addition the Federal Territory of Kuala Lumpur is one of three Malaysian Federal Territories, as well as an enclave within the state of Selangor, on the central west coast of Peninsular Malaysia.

Table 4.2: Age group for Malaysia's and Federal Territory of Kuala Lumpur's population, 2000 and 2010

		MALAYSIA		FEDERAL TERRITORY OF KUALA LUMPUR	
	YEAR	2000	2010	2000	2010
AGE GROUP	50-54 years old	772,888	1,367,631	56,593	85,443
	55-59 years old	524,104	1,064,742	34,764	65,434
	60-64 years old	463,337	823,876	29,194	49,104
	65-69 years old	290,773	538,201	17,572	31,010
	70-74 years old	218,511	409,677	12,188	22,281
	75+years & above	237,774	479,462	12,134	25,430
TOTAL ELDERLY		1,210,395	2,251,216	71,088	127,825

Source: Department of Statistics Malaysia (2010)

The KL area was chosen mainly due to the reason that it is the main heart of commercial and industrial area in Malaysia. Besides that, according to the Department of Statistics Malaysia (2010), there are only two areas in the Malaysia that has achieved the 100 percent level of urbanisation. Those two areas are the Putrajaya and the Kuala Lumpur area. Thus, for the purpose of this study the Federal Territory of Kuala Lumpur has the perfect urban setting that is required in this study.

4.5 Kelantan

Department of Statistics Malaysia (2010) stated that Kelantan has a total population of 1,539,601, where it is noted that there are approximately 135,935 of elderly resides throughout Kelantan. By referring to Table 4.3, it can be deduced that a similar pattern exist between the whole Malaysia and Kelantan elderly population, where in just 10 year, each area recorded doubling in the number of elderly. The table divided population of 50 years and above into their respective age group. The total number of elderly shown in the table is a sum of the elderly (Malaysia adopted 60 years and above as cut off point to define elderly).

Table 4.3: Age group for Malaysia's and Kelantan's population, 2000 and 2010

		MALAYSIA		KELANTAN	
	YEAR	2000	2010	2000	2010
AGE GROUP	50-54	772,888	1,367,631	34,024	77,377
	55-59	524,104	1,064,742	24,915	59,883
	60-64	463,337	823,876	20,904	49,257
	65-69	290,773	538,201	12,677	32,850
	70-74	218,511	409,677	11,870	24,169
	75+	237,774	479,462	14,840	29,659
TOTAL ELDERLY		1,210,395	2,251,216	60,291	135,935

Source: Department of Statistics Malaysia (2010)

Situated on the northeast of Peninsular Malaysia, Kelantan is unique in such way that its population is predominantly Malay (95%). The main economic activities in Kelantan are still maintaining the traditional ways of batik printing, songket weaving, and fishing. It is a common scenario in the streets of Kelantan where we can see the elderly are working as beca rider as well as elderly selling goods and working on their small businesses. All around Kelantan, all businesses will come to a hold during the adzan prayer and on Fridays, it is a routine activity for the Kelantanese men to come together and perform the Friday prayers. According to Riji and Ahmad (2008), the Kelantanese, in general, are very active in economic and social activity, disregard of gender or age.

According to the Kajian Profil Bandar (2009) by the Jabatan Perancangan Bandar dan Desa Semenanjung Malaysia, there are 10 municipalities within the Kelantan State's jurisdiction. The areas covered by the 10 municipalities are governed by separate local authorities: Majlis Perbandaran Kota Bharu, Majlis Daerah Tumpat, Majlis Daerah Bachok, Majlis Daerah Pasir Mas, Majlis Daerah Tanah Merah, Majlis Daerah Jeli, Majlis Daerah Machang, Majlis Daerah Pasir Puteh, Majlis Daerah Gua Musang, and Majlis Daerah Kuala Krai.

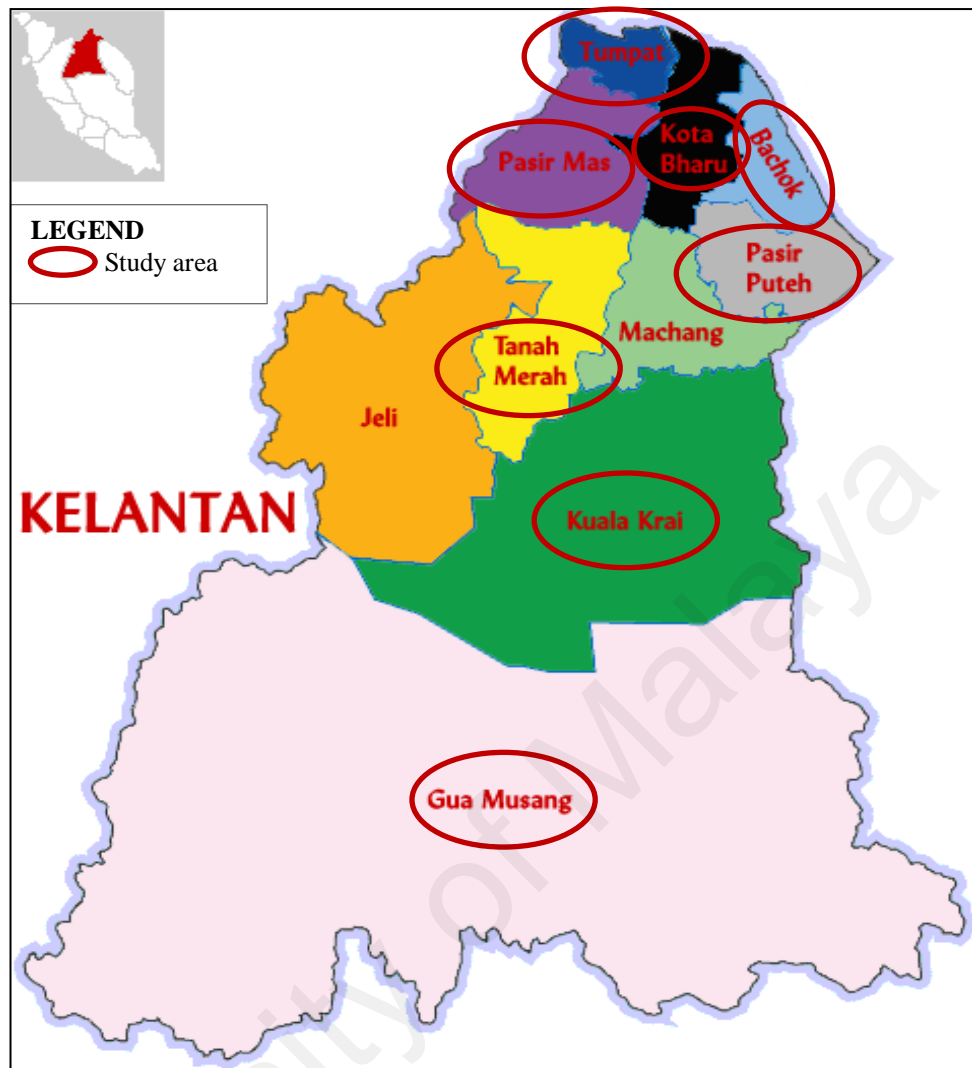


Figure 4.8: The Map of Kelantan

Source: <http://www.kelantan.gov.my/>

The selection of urban and rural areas boundary of the Kelantan strictly followed the boundary of urban area provided by the “Profil Bandar Negeri Kelantan” which had been published by the Town and Country Planning Department 2009. For the purpose of this study, the Kelantan rural area covered is as shown in Figure 4.8. Table 4.4 further details out the area covered for Kelantan rural survey area.

However, for the purpose of this study, there are areas that were excluded and the urban areas of Kelantan were strictly excluded out from the survey. The areas that were

excluded include the Kota Bharu, Jeli, Rantau Panjang, Kubang Kerian, Ketereh as well as Pengkalan Chepa. The Jeli, Rantau Panjang as well as Pengkalan Chepa area were excluded due to the fact that time and money constraint were being considered when covering too much area. On the other hand, the exclusion of the Kota Bharu and Kubang Kerian area was based on the fact that the Kelantan area was chosen as the rural setting area for this urban-rural comparison study. Thus, Kota Bharu was excluded as it is the capital city of northwestern state of Kelantan. Furthermore, with a total population of 468,438 the Kota Bharu is considered as urban area by the Town and Country Planning Malaysia.

Table 4.4: Covered rural study area (Kelantan)

AREA	DETAILS
Pasir Mas	Pasir Ho, Rantau Panjang, Kg Gelang Mas, Kg Baru, Bukit Tuku, Kg Tok Pelanduk
Pasir Puteh	Tok Bali, Kg Gaal, Kg Kemal, Kg Batu Berendam, Kg Permatang Gading
Bachok	Pasar Jelawat, SK Tangok, Sekolah Gunong, SK Melor, Kg Tawang, Kg Tok Jawa, Kg Sen Heng
Kuala Krai	Kg Slow Pak Long, Manjor, Kg Manjor Lama, Smk Mengkebang, Kg Bahagia, Kg Sungai Peria
Tumpat	Kg Kubang Sawa, Bunohan, Kg Geting, Kg Nechang, Kg Cherang Melintang
Tanah Merah	Kg Air Sehe, Kg Lalang Pepuyu, Kg Bendang Keladi, Kg Salak
Gua Musang	Kg Meranto, Kg Pulaui, Kg Tanah Puteh

The justification as to why Kelantan area was chosen as our main rural study area, despite having difficulty in terms of the Kelantanese Malay *slang*, was mainly due to the fact that the Kelantan state displays the lowest urbanisation level in Malaysia (Department of Statistics Malaysia, 2010). Despite the fact that it had very low urbanisation level, elderly community in Kelantan had been long known to been able to

display an active lifestyle especially in terms of working on their small businesses (Riji and Ahmad, 2008).

4.6 Summary

The speed of population ageing is irregular to that of the world's developing regions in which Malaysia will confront the doubling of elderly population in less than 30 years (Ong et al., 2009). Additionally, Malaysia is also a highly open upper-middle income country. With this, there is a need to examine the needs of housing for elderly in Malaysia. As being discussed earlier, location plays an important role, therefore in this study, the housing needs of elderly based on the urban and rural aspect were examined.

Since Federal Territory of Kuala Lumpur has achieved 100 percent of population urbanised. Meanwhile, Kelantan is the area having the least urbanisation level in Malaysia, thus both areas are chosen as the best study area. The next chapter will further elaborate on the research methodology.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 Introduction

This chapter will discuss the research methodology and design adopted in this study. Therefore, this chapter will further explain the reasoning of study selection area, which are the Federal Territory of Kuala Lumpur and the Kelantan. Furthermore, this chapter will also give further explanation on the sampling technique, data collection, data analysis as well as the data validity.

This chapter begins by providing the rationale for the research approach before detailing the methods used to gather data, analyse data as well as presenting data.

5.2 Research Approach

According to Creswell (2012), research approaches are perceived as plans that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation. Research approach is a strategy of enquiry, which moves from the underlying assumptions to research design, and data collection (Myers, 2013). Other than that, as asserted by Creswell and Clark (2007), in order to improve the validity of social research, it is crucial to clearly illustrate the research approach. The research approaches can be divided into three; quantitative, qualitative and mixed methods.

The quantitative research presents statistical results represented by numerical or statistical data, the qualitative research presents data as descriptive narration with words and attempts to understand phenomena in “natural settings”. Flick (2015) stated that quantitative research makes use of questionnaires, surveys and experiments to gather data that is revised and tabulated in numbers, which allows the data to be characterised by the use of statistical analysis. Thus, this research is actually a quantitative research,

as it uses questionnaires and survey as its main tool as well as presenting data in the form of statistical data.

Additionally, research can be classified as either applied research or fundamental research. Applied research can be defined as a research that aims in finding solution for immediate society's or an organisation problem. In contrast, a fundamental research is more concerned on the formulation of a theory and standardisation. Therefore, this research actually is an applied research, which aims to examine the key issue relating to elderly housing in Malaysia. Specifically, this research aims to identify differences between housing needs of elderly living in urban and rural areas of Malaysia.

5.3 Research Design

Research design can be seen as the master plan of a research that are able to show all the major parts of the study how the study is being conducted. Du Toit and Mouton (2013) stated that research design is important as it aids the researcher in terms of his research direction, right from the philosophical base to the data collection stage and finally the data discussion. In another word, research design serves as to plan, structure and execute" the research to maximise the "validity of the findings". Yin (2013) further added that research design is the action plan for getting from here to there, where 'here' may be defined as the initial set of questions to be answered and 'there' is some set of (conclusions) answers".

There is no fixed and universal research design for all research (Piaw, 2012). Additionally Piaw (2012) further stated that research design is the main fundamental part in every research. Thus, Figure 5.1 (Research Design Process), illustrates the design process adapted in this study according to each specific phase.

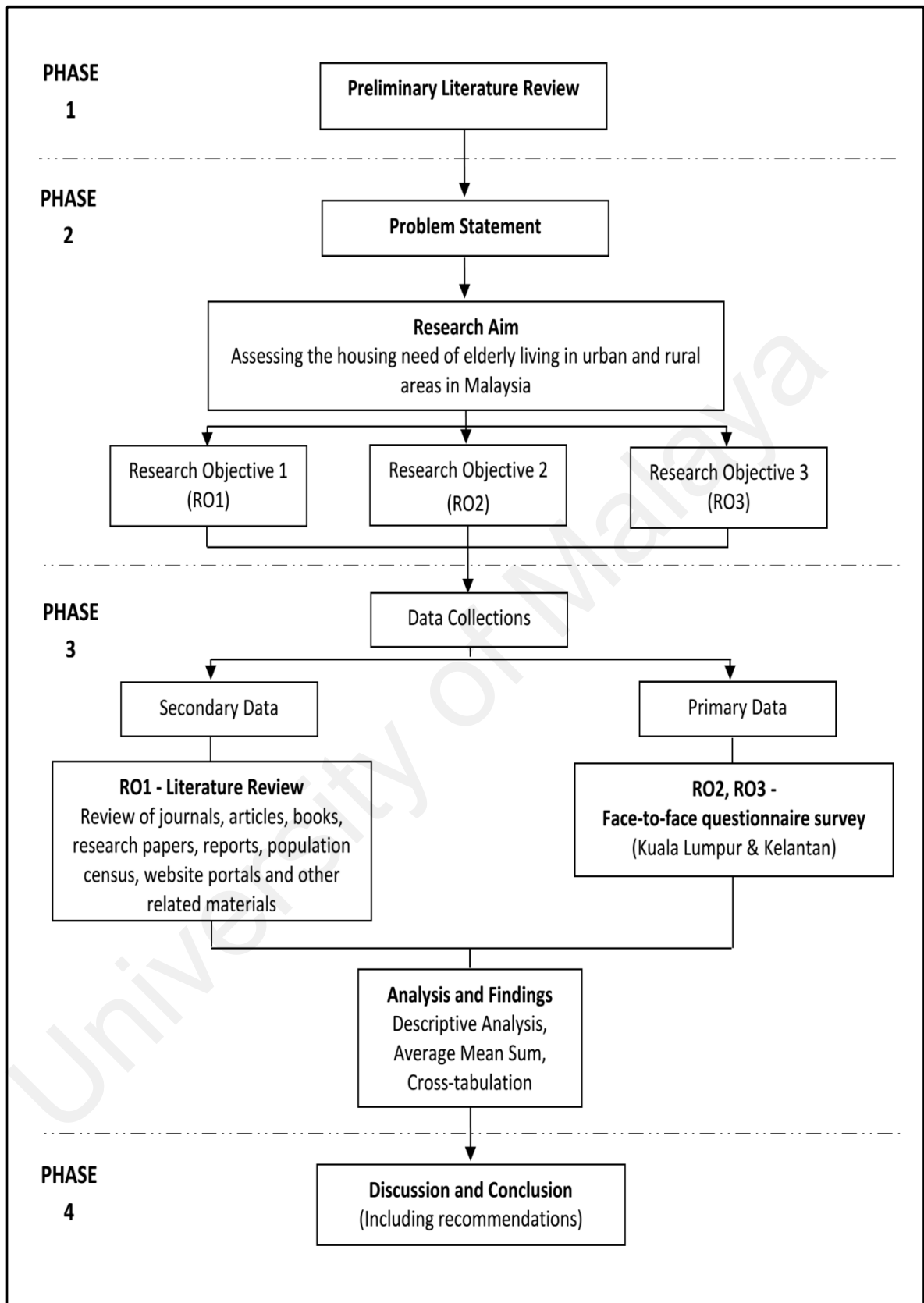


Figure 5.1: Research design process

Table 5.1: Research technique and outcomes

Research Question(s)	Type of Data	Research Method	Output
1. What are the housing options available for the Malaysian elderly?	Secondary data	Literature review and observation (Visits to nursing home and retirement village)	Chapter 3 & Chapter 7
2. To what extent do the housing needs differs between elderly living in the urban and rural area?	Primary data	Quantitative (empirical data)	Chapter 6 & Chapter 7
3. What is the aspiration of urban and rural elderly, in terms of housing in the future?	Primary data	Quantitative (empirical data)	Chapter 6 & Chapter 7

Table 5.1 illustrates the technique and outcomes in this study. In achieving the first objective of this research, extensive literature review and reading on types of housing options available had been done. Additionally, observation method had also been conducted through several visits to a nursing home within Petaling Jaya and Kuala Lumpur area as well as *pondok* house within the Kelantan area.

The second objective of this study tries to determine to what extent, the housing needs and condition differ between elderly living in the urban and rural area. Whereas the third objective is set to determine what is the housing aspiration of the urban and rural elderly, in terms of housing in the future. For both of this objective the research instrument used is a questionnaire. The questionnaire provides quantitative data and were further analysed using SPSS.

5.4 Data Sampling and Data Collection

The sampling technique used in this study was the stratified sampling and the research method was purely based on a quantitative method, using a questionnaire survey. This study adopted face-to-face questionnaire survey, which commenced in April 2014 and ended in August 2014.

In line with this, the face-to-face questionnaire survey that was conducted in Federal Territory of Kuala Lumpur took about 2 months to be fully completed (April 2014 until May 2014). Whereas, the face-to-face questionnaire survey in Kelantan rural area was conducted from July 2014 until August 2014.

Time spent for data collection was extensively long as each of the face-to-face questionnaires takes about 40 minutes to be fully completed. In the effort to maintain the standardisation of the data collected (especially in Kelantan where language barrier exists), the whole process was self-administered.

Sampling is a procedure that gathers data from a portion of a population, as a basis for drawing conclusions about the entire population (Sekaran and Bougie, 2009). Sample size required highly rely on the research budget, knowledge of the variability within the sample, the degree of confidence as well as precision of outcome needed (Babbie, 2010). It requires extensive amount of effort and budget to cover all elderly in Malaysia. Therefore, sampling is engaged in conditions whereby population is too large to conduct surveys on everyone; the aim of sampling is to approximate unknown characteristic of a population (Zikmund et al., 2010).

It has been noted that, a study on “Attributes influencing home buyers' purchase decisions” by Zeng (2013) also stated that the sample size of 384 which enough to achieve the objective set for their housing study. For the purpose of this study, the

sample size of the respondents in this study is based on the total elderly population in Malaysia. In order to determine appropriate the sample size for research activities, Krejcie and Morgan (1970) had developed a table (as in Table 5.2) for the determination of sample size.

Table 5.2: Determining sample size

Required Sample Size								
Population Size	Confidence = 95%				Confidence = 99%			
	Margin of error				Margin of Error			
	5.0%	3.5%	2.5%	1.0%	5.0%	3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	146	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1,067	427	636	827	1,119
1,500	306	515	759	1,297	460	712	959	1,376
2,000	322	563	869	1,655	498	808	1,141	1,785
2,500	333	597	952	1,984	524	879	1,288	2,173
3,500	346	641	1,068	2,565	558	977	1,510	2,890
5,000	357	678	1,176	3,288	586	1,066	1,734	3,842
7,500	365	710	1,275	4,211	610	1,147	1,960	5,165
10,000	370	727	1,332	4,899	622	1,193	2,098	6,239
25,000	378	760	1,448	6,939	646	1,285	2,399	9,972
50,000	381	772	1,491	8,056	655	1,318	2,520	12,455
75,000	382	776	1,506	8,514	658	1,330	2,563	13,583
100,000	383	778	1,513	8,762	659	1,336	2,585	14,227
250,000	384	782	1,527	9,248	662	1,347	2,626	15,555
500,000	384	783	1,532	9,423	663	1,350	2,640	16,055
1,000,000	384	783	1,534	9,512	663	1,352	2,647	16,317
2,500,000	384	783	1,536	9,567	663	1,353	2,651	16,478
10,000,000	384	784	1,536	9,594	663	1,354	2,653	16,560
100,000,000	384	784	1,537	9,603	663	1,354	2,654	16,584
300,000,000	384	784	1,537	9,603	663	1,354	2,654	16,586

Source: Krejcie and Morgan (1970)

As total number of elderly in Malaysia is around 2,251,216 in population (Department of Statistic Malaysia, 2010), with a Confidence Level of 95% and a $\pm 5\%$ Confidence Interval, 384 elderly respondents is the acceptable sample size of respondents recommended for this study (refer to Table 5.2). To date, there is no solid and definite age used in defining the 'elderly', as the usage of the age group of elderly differs among the gerontology researchers (Tinker and Ribe, 2013; Lim 2012; Yusnani; 2006). During the United Nations World Assembly 1982 which was held in Vienna, they used the '60 years and over' as the cut-off in deliberating ageing trends. In relation to this, the Malaysia policy makers have adopted this demarcation and are seen to be officially used in any programs and planning related to elderly.

However, this study used the age cut-off starting from the age of 50 years old. In other word, this research takes the sample size of elderly respondents of the age 50 years and over. Tatsiramos (2006) in his study on the determinants of residential mobility of elderly looks into the decisions of older households which are related to their housing situation. Similarly to this study, Tatsiramos (2006) also specifically used the age of 50 years old and above as the cut-off point in his study.

Additionally, Lim (2012) who studied on the changing needs of older Malaysian had divided the age variables of elderly into three (3) major age groups in his effort to characterise the elderly life course experiences. The age groups are 50-59 (young old), 60-69 (old-old) and 70+ (oldest old). Similarly, this research also tries to capture the respondent's opinion in their early old-age life transition.

Several researchers had also used the cut-off point of 50 years old and above as the age of 50 years old are often linked to the stage of self-realisation and actualisation (Barett et al., 2011; Hasegawa, 2010). The 3 stages of Life are shown in Figure 5.2.

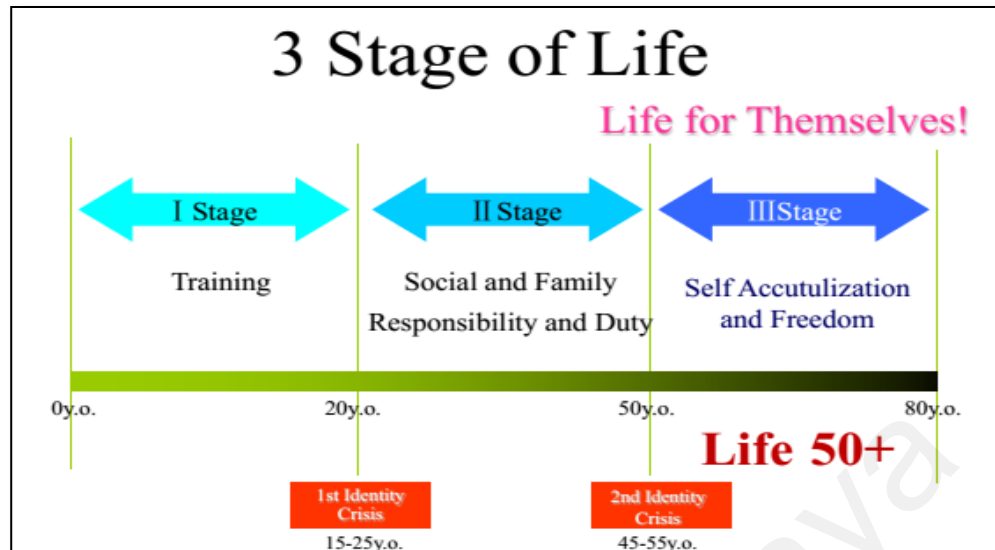


Figure 5.2: The 3 stage of life

Source: Hasegawa (2010)

A study on the relocation of elderly suggests that elderly of the age 55 years old – 64 years old are more prone of relocating themselves (Crisp et al., 2013). Therefore the cut-off point of 50 years old and above allows us to also capture the group of elderly who are more prone to actually relocate themselves. According to Stockdale and MacLeod (2013) the “50-59 years old” age group, is the retirement transition life course stage. More importantly, this age group is also closely associated with the age where elderly starts to plan and ponder upon their retirement plan, including their housing plan. Thus, this relates back to our research, where finding out their future housing aspiration is one of the objectives in this study. To conclude, this study used the age cut-off starting from the age of 50 years old and above.

On the other hand, in terms of the participants and procedure of the survey, the elderly respondents was approached while they were doing their daily activities such as strolling in the park, exercising, gardening, talking with their friends and even while working, for the elderly who still works. The targeted area for the survey includes the

housing area, business premises, offices, school and mosque. After a careful and thorough explanation on the study as well as the aims and objectives of the study, the particular elderly will be asked on whether they are willing to volunteer to take part in the study. Any unwilling respondents were not being forced into taking/answering the survey question.

In order to be able to compare the housing needs of elderly in terms of urban and rural context, it is of the crucial for this study to have two (2) areas. One of which that can give further in depth knowledge on the urban setting of the housing needs of the elderly and the other area can give further in depth understanding on the elderly housing needs of the rural setting in Malaysia. Therefore, having two (2) areas is crucial for this study as it was deemed suitable to address the aim, objectives and research questions in this study. Therefore, the selected area for this study is the Federal Territory of Kuala Lumpur and Kelantan.

For Kuala Lumpur, the whole area under the jurisdiction of the Kuala Lumpur City Hall is being selected without any exclusion and the boundaries of the survey area are as shown in Figure 4.7 (refer in Chapter 4). The selection of urban and rural areas boundary of the Kelantan strictly followed the boundary of the urban area provided by the “Profil Bandar Negeri Kelantan” which had been published by the Town and Country Planning Department 2009. Further explanation of the survey area is as discussed in the previous chapter (Chapter 4).

In relation to the previous chapter, we have explained the reasons behind our selection of study area. Therefore, briefly, we can conclude that the rural areas in Kelantan were chosen as our rural study area, mainly due to the fact that the Kelantan state displays the lowest urbanisation level in Malaysia (Department of Statistics Malaysia, 2010). On

the other hand, the Federal Territory of Kuala Lumpur area was chosen as our urban study area due to the fact that it has reached the 100 percent level of urbanisation, which makes it perfect as our selection of an urban area in Malaysia (Department of Statistics Malaysia, 2010).

5.5 Questionnaire Survey

The questionnaire used in this study has a total of 5 sections. The detail description for each section of the survey is as following:

Sections A and B - Respondent's profile

Section C - Current housing and neighbourhood

Section D - Future housing plans of the respondents (living arrangements, future choice of location and type of house)

Section E - Retirement Village

The initial point of the questionnaire is to uncover the housing needs of elderly living in urban and rural area. The various profiles as shown in the respondents' profiles of these two areas shall be analysed to illustrate their similarities and differences.

Socio-demographic factors were included in the Respondents profile section. The socio-demographic factor included were sex, age, marital status, current living arrangement, and education level. Age was measured by the self-reported chronological age of the participants at the time of the survey. Gender of the participants was grouped into men and women. Ethnic of the participants was grouped into Malay, Chinese, Indian and others. Marital status was grouped as single/never married, married, divorced, widowed and others. Living arrangement was grouped as "alone", "spouse only", "children only", "others", "spouse and children", "spouse and others", "spouse and children and others", "children and others". Education level was divided into 7; no

“proper education”, “primary school”, “PMR / SRP / LCE”, “SPM / SPMV / MCE”, “STPM / STAM / MATRICULATION”, “Certificate” as well as “other education”. Employment was grouped as retired, unemployed, self-employed, private sector as well as government sector. On the other hand, the income was asked in terms of the household total monthly income. The household monthly income was grouped as “below RM 3000”, “RM 3000 - RM 4999”, “RM 5000 - RM 6999”, “RM 7000 - RM 9999” and “RM 10000 and above”.

For this study, the elderly housing needs were measured by asking the elderly participants to indicate their needs in terms of housing. Based upon the answer, the housing needs were grouped into the elderly housing safety issue, adequateness of size, living environments, housing environments and facilities. These housing needs are further discussed in the following aspects:

a) Safety Issue

The housing safety issue can be divided into two, which is safety inside the house as well as outside the house. The questionnaire is tailored to capture both safety issue. For example, to capture the internal safety of the house, elderly respondents were asked on the physical safety of the important areas (such as bathroom, kitchen, bedroom, stairs and etc) inside their house. Vice versa, for the safety issue outside house, the elderly were asked on the importance of safety and security aspect within their neighbourhood.

b) Adequateness of Size

Questionnaire was further used to ask elderly respondents on the aspect of adequateness of size, according to each of the important areas (such as bathroom, kitchen, bedroom, stairs and etc) inside their house.

c) House Living Environments

With regards to the house living environments, based on the construed questionnaire, elderly respondents were asked regarding their house layout and design, internal mobility, health, aesthetic value, living cost and etc.

d) House Environments

With regard to the house environments, questionnaire is constructed in such was that it is able to capture the variables such as traffic, noise, crime rate, air quality, cleanliness, vandalism and etc.

e) Facilities

The Facilities attributes in the questionnaire were mainly divided into 5 main groups, and these variables used are as follows:

- i) Social and leisure - Place for social and leisure for elderly.
Example: religious class, social clubs, mosque, churches, etc.
- ii) Facilities - Facilities for elderly. Shopping, banking, post office.
- iii) Health facilities - Health services, such as hospital or clinic.
- iv) Public transportation - Local public transportation.
- v) Walking area - Green area, Walking area, parks, etc.

Additionally, the later part of the questionnaire asked on the future housing aspirations of the elderly (refer to Questionnaire: Section D - Future housing plans of the respondents). This part of the questionnaire includes questions on whether the elderly respondents consider moving in future, what are their future plans for their current house as well as their future housing consideration (with respect to location and type of house).

5.5.1 Pilot Survey

A pilot study was conducted in order to test and confirm the questions in the survey. According to Naoum (2007), good research practices start with the pilot study before actual study is carried out. The pilot study was conducted within the Kuala Lumpur area. This is very crucial, because the main purpose of the pilot study is to ensure whether the respondents understand the questions in the survey sheets and to avoid misinterpretations (Naoum, 2007). The pilot questionnaire survey was tested on a total of 50 respondents within the Kuala Lumpur area and the elderly respondents were selected on a stratified basis. The time to answer the survey was taken and is considered to be about 40 minutes for each respondent.

5.5.2 Actual Survey

The target population for the study consists of individuals aged 50 and older, living in residential accommodation within the pre-selected area of Kuala Lumpur and Kelantan. The actual survey was conducted on a total of 384 respondents. With regard to this, a total of 192 respondents live within the Kuala Lumpur area whereas the rest of 192 respondents live within the Kelantan rural area. This study adopted face-to-face questionnaire survey, which commenced in April 2014 and ended in August 2014. In line with this, the face-to-face questionnaire survey conducted in Federal Territory of Kuala Lumpur and took about 2 months to be fully completed (April 2014 until May 2014).

On the other hand, the face-to-face questionnaire survey in Kelantan rural area was conducted from July 2014 until August 2014. The elderly respondents were selected on a stratified sampling basis. Stratified sampling based on age and ethnicity was used to obtain the samples. Research samples consist of individual at community level and

there was no marital or gender discrimination. A quota was set to 192 respondents for each state. This is to achieve the total of 384 sample size using the Minimum Adequate Sample Size formula (Krejcie and Morgan, 1970). In states like Kelantan for example, local dialect was widely spoken requiring hiring of local enumerators that were closely supervised and monitored. This is to ensure accuracy and consistency of data collected. The average time to complete the interview was about 40 minutes.

5.6 Approach to Data Analysis

Data collected from the questionnaire survey was analysed using the SPSS software. A normality test was conducted before further analysis of the data to ensure the data used is adequate for statistical analysis. The cross tabulation analysis was used in order to determine the association between the variables. In addition, the chi-square analysis was used to determine the existence of the relationship. The Cramer's V/phi was adopted to determine the strength of relationship along with the t-test. The descriptive analysis in this study calculated the frequency, mean and median of the distribution. These techniques were used to determine the various relationship between the profile of the urban-rural elderly with the variables under the housing needs, identified under the housing needs. For the purpose of this study, they are used to determine the differences of urban-rural elderly housing needs in Malaysia.

5.6.1 Reliability Test

The reliability test was done to check the internal consistency of the measurement items. Measurement of reliability refers to the consistency of a measure (Remler and Ryzin, 2011). If the test takes the little noise, it means that only a few random errors exist when the measurement is taken. Hence, it will be a consistent measurement and taken the as good reliability of the data (Remler and Ryzin, 2011).

Cronbach's alpha test is carried out to show how much the project is accepted or preferred. It is acceptable when the value is above 0.7 whereas it is preferable when the value is above 0.8. The closer Cronbach's alpha to 1 indicates higher internal consistency reliability. This study used Likert scale type of data in the questionnaire, thus reliability test is used in order to observe the consistency of the data.

5.6.2 Descriptive Statistical Analysis

Singh (2006) mentioned that this analysis is concerned with numerical description of particular group observed. With regard to this study, the descriptive analysis (frequency, mean and median) is used to explain the demographic profile of the respondents. Among the demographic data of respondents that were analysed were the age, gender, educational level, marital status as well as the income level.

5.6.3 Crosstab

A cross tabulation displays the joint distribution of two or more variables (Neuman, 2006). In other word, Cross tabulation analysis is used in order to show the association between the variables. They are usually presented as a contingency table in a matrix format. Whereas a frequency distribution provides the distribution of one variable, a contingency table describes the distribution of two or more variables simultaneously. Each cell shows the number of respondents that gave a specific combination of responses, that is, each cell contains single cross tabulation.

In this study, the crosstab is used in order to further illustrate the differences and association between the needs of urban rural elderly and related demographic profile of elderly respondents.

5.6.4 Mann-Whitney U Test

The logic behind the Mann-Whitney test is to rank the data for each condition, and then see how different the two rank totals are (Corder and Foreman, 2009). If there is a systematic difference between the two conditions, then most of the high ranks will belong to one condition and most of the low ranks will belong to the other one. In this study the Mann-Whitney U Test is conducted to If there is a systematic difference between the two conditions. For example, to determine whether significant difference does exist between the safety variable and the socio demographic profile (example: age group, ethnic, education level and household net income) of the urban-rural elderly respondents.

5.7 Validity of Research

Reliability and validity of measurement are important in a research. As suggested by Neuman (2006), a number of research strategies are used in this study by standardising the research procedures and conducting a pilot study. There are two aspects of validity, which are, the measuring instrument only measures the concept of the research and that the concept is measured accurately. The validity in quantitative research can be measured by tests that are important to demonstrate a fixed correspondence between the concept of the research and the empirical appearance (Neuman, 2006). A pilot survey was conducted in this study to test the validity of the research instrument.

5.8 Ethical Considerations

Each and every researcher has the obligation to respect their respective respondent's rights, needs, desires as well as values. (Cresswell, 1994). Thus, every research must be done in a proper way with consideration upon the values and desires of the respondents.

Additionally, in a research, it is the individual right of the respondent to decline in participating in the study (Clark et al., 2009). The researcher also needs to obtain proper permission to collect data from individuals and sites (Creswell et al., 2007). Researches also carry the burden of ensuring that the purpose and activities of the research being clearly explained to the participants. Lastly, it is unethical for a researcher to use and leak out the respondent's information to a third or another party as it is the obligation of a researcher to safeguard the participant's information.

Above all, in this research, the respondents were prior asked on their willingness to join the survey and were clearly being explained the purpose of the research. Any identified respondents that decline on participating in the research were not forced on joining the research. In line with the Malaysia Personal Data Protection Act 2010 (PDPA), respondents were also ensured that the data collected will only be used for elderly research purpose only, as well as ensuring that any personal information given by them will be kept confidential.

5.9 Limitations

The study has several limitations that may have an effect upon the result of the study. First, the study was conducted on the basic assumption that the social and economic status of the elderly remains unchanged in the future. As such, for example, any changes to the elderly health status that may affect the elderly future housing needs cannot be captured. Additionally, the elderly respondents are the type of respondents that are easily tired thus, the questionnaire that take about 40 minutes to be fully answered were often hard to be finished. Additionally, this study also does not take into consideration the house type of respondents. Regardless of their house type, respondents were selected if they met the requirement of elderly living within the pre-

determined study area. The logic behind this decision is due to the fact that few sets of variables had been pre-fixed the controlled variable for this study (area, age, ethnicity as well as gender were fixed as the controlled variables for this research).

This study, in fact, needs a form of generalisation through time in that it should be replicated using larger sample sizes. This remark suggests not marginally but much larger samples to fill and flush out all the possible response categories to main issues addressed in the research aim and research objectives. It has emerged that numbers of respondents are insufficient and hundreds or thousands would be better. However, such expansion in scale would require resources as well as time which exceed present study's scope.

Besides that, factors such as language barrier cost incurred as well as the lack of soft skills of the author are among the limitations that are faced while the study is being conducted. For example, the language barrier made it quite difficult for the author to communicate with the elderly respondents of a different race who are unable to communicate both in English or Malay. An elderly Chinese respondent, for example, are willing to participate, but language barrier may come in between the researcher and the respondents.

Besides that, the researcher also faced problem in communicating with the elderly in Kelantan as they are more fluent in using the Kelantanese slang. Approaching an elderly also requires the researcher to be aware and knowledgeable of the elderly basic need. For example, an elderly may be easily tired and thus, requires having a short break from the long face-to-face interview which normally takes around 40 minutes to be completed. The limitation listed above reflects the difficulties when it comes to the study involving elderly answering questionnaires.

The study further face limitations as it does not group elderly as their pre and post retirement. This study mainly views and focuses mainly on the age bracket of each elderly. This is important because, female respondents in Kelantan area (rural area) were mainly housewives and does not experience the preretirement stage. It is a norm for the male to be the sole breadwinners of their family.

Though it is hoped that we achieve an equally distributed percentage of respondents; equal distribution according to age, ethnicity, gender and etc. However, such equally distributed percentages were hard to achieve. Another limitation in this study is with respect to the sample size and precision level of 7%. Some scholars such suggested a precision level of 5%. However, due to unavoidable limitations and restraints of funding and time, this study adopted a slightly higher precision level of 7% as being suggested by Glenn (2002).

5.10 Summary

Research methodologies were used in collecting, analysing, and interpreting data. SPSS software was used to analyse and interpret the data. In this chapter, research design and data collection methods are explained to collect and analyse the data. Besides that, target population, location, and sample size were also included in this chapter. Further result and interpretation of the data analysis in will be explained in detail in Chapter 6.

CHAPTER 6: ANALYSIS AND FINDINGS

6.1 Introduction

This chapter presents the data and findings collected from a questionnaire survey. Data collected includes the background of the respondent (age, ethnic, religion, marital status, and the background of education), the background of occupation, income as well as the housing needs and housing aspiration of the elderly. Data obtained from the survey was then analysed quantitatively. In sum, this chapter serves to answer all research questions in this study.

6.2 The Socio-Demographic Profile of Respondents

This section presents general details of the respondents such as age, gender, ethnicity, marital status, education level, employment and income. On the second part of this section, the living arrangements as well as the current residence of the respondents will be further elaborated.

6.2.1 General Background of Respondents

The first part of the questionnaire survey provides the profile of respondents. For the purpose of this study, the age catchment used can be divided into three groups; 50-59 years old, 60-69 years old and 70 years and above. It is found that, for the rural elderly, 51% is of the age 50-59 years old, 27.1% is of the age 60-69 years old and 21.9% is of the age 70 years old and above. Whereas for the urban elderly, 49.5% belongs to 50-59 years old age group. 34.9% of the urban elderly belongs to the 60-69 years old age group and only 15.6% of the respondents is of the age 70 years old and above.

Out of 192 respondents in the urban area we manage to get a slightly higher number of male respondents, with a total of 58.3% are male respondent and 41.7% are female

respondents. In contrary with the rural area, as we have a slightly higher number of female respondents compared to the male respondents (44.3% male, 55.7% female).

Table 6.1: General background of respondents

Subject	Items	Percentage (%)	
		Urban	Rural
Age group	50-59 years old	49.5	51.0
	60-69 years old	34.9	27.1
	70 years old and above	15.6	21.9
Gender	Male	58.3	44.3
	Female	41.7	55.7
Ethnicity	Malay	60.9	96.9
	Chinese	26.6	3.1
	Indian	11.5	-
	Others	1.0	-
Marital Status	Married	79.7	76.6
	Widowed	14.6	18.8
	Single	4.2	2.6
	Divorce	1.0	2.1
	Others	.5	-

According to the Population distribution and basic demographic characteristic report (2010) released by the Malaysian Statistical Department (2010), the Malaysian citizens consist of the ethnic groups Bumiputera (67.4%), Chinese (24.6%), Indians (7.3%) and others (0.7%). Therefore, as being indicated in Table 6.1, the number of respondents collected for the urban area is, 60.9% for Malays, 26.6% Chinese, 11.5% Indian and 1% for other Bumiputera. Our selected rural area are the Kelantan area and according to the Malaysian Statistical Department (2010), Bumiputera (95%), Chinese (3.8%), Indians (0.3%) and other Bumiputera (0.9%). With a percentage of 96.9% Malays and 1% for other Bumiputera, we managed to get around 97.9% Bumiputera. Comparing to the 95% of the real percentage of Bumiputera ethnics in Kelantan, our 97.9% is having only slightly differences.

Based on the figure on marital status of respondents, it is noticeable that majority of respondents from both urban (79.7%) and rural (76.6%) area are married. The urban elderly shows a higher percentage of being single with a total of 4.2% as compared to only 2.6% single elderly in the rural area. In terms of their marital status, a slightly higher number of elderly in rural area are widowed. This may be contributed to the fact that, in our survey, a slightly higher number of respondents in rural area are women. In general, men are more likely to die before their wives due to the higher mortality rate among men as compared to women (United Nations, 2013). Thus, a slightly higher number of women respondents in a rural area lead to a slightly higher percentage of widowed in the rural area.

Table 6.2: Education level and income of respondent

Subject	Items	Percentage (%)	
		Urban	Rural
Education level	PHD/Doctor of philosophy	5.2	-
	Master	12.0	-
	Bachelor degree	15.6	7.8
	Diploma	8.3	4.7
	Certificate	5.7	9.9
	STPM/STAM/Matriculation	5.7	1.0
	SPM/SPMV/MCE	25.5	11.5
	PMR/SRP/LCE	5.7	15.6
	Primary school	14.1	30.7
	Others	.5	-
	No proper education	.6	18.8
Employment sector	Retired	37.5	10.4
	Self-employed	22.9	59.4
	Private sector	16.7	8.3
	Government sector	13.0	8.9
	Unemployed	9.9	13.0
Household income	RM 10,000 and above	18.1	2.6
	RM 7,000 - RM 9,999	17.0	13.0
	RM 5,000 – RM 6,999	11.0	12.5
	RM 3,000 – RM 4,999	19.8	40.1
	Below RM 3,000	34.1	31.8

For the education level (refer to Table 6.2), it can be generally seen that a higher proportion of elderly in rural area has education only up to the primary school or did not receive any proper education. On the other hand, in the urban area, a majority of elderly respondents receive an education of at least until the high school level. For this study, it can also be noted that a significant number of the elderly respondents having postgraduate educational level are currently residing in the urban area. In the urban area, a total of 12% elderly is, at least, a master holder and a total of 5% are PHD holders. This is in contrast to the rural area that has only respondents of bachelor degree as their highest education level.

About 37.5% of the urban respondents are retirees, 22.9% of them are self-employed, 13% is working in the government sector, and 16.7% is working in the private sector while the remaining is unemployed. On the other hand, a total of 59.4% of the rural respondents are self-employed, 13.0% unemployed and 10.4% are retirees. The rest of them, are working either in the government or private sector. The urban respondents have the percentage of 18.1% having the household monthly income of “RM 10000 and above”. This scenario differs from the rural area that have only around 2.6% of respondents having a household monthly income of “above RM 10000”.

6.2.2 The Living Arrangements and Current Residence of Respondents

This subsection entails further details of living arrangements and current residence of the elderly respondents. For the urban area, a majority of elderly are currently residing with their spouse and children (as shown in Figure 6.1). In the context of the rural area, a significant majority of elderly are currently living with their “spouse, children and others”. The person that falls under the categories of “others” includes the elderly parents, siblings, housemaids, as well as other relatives.

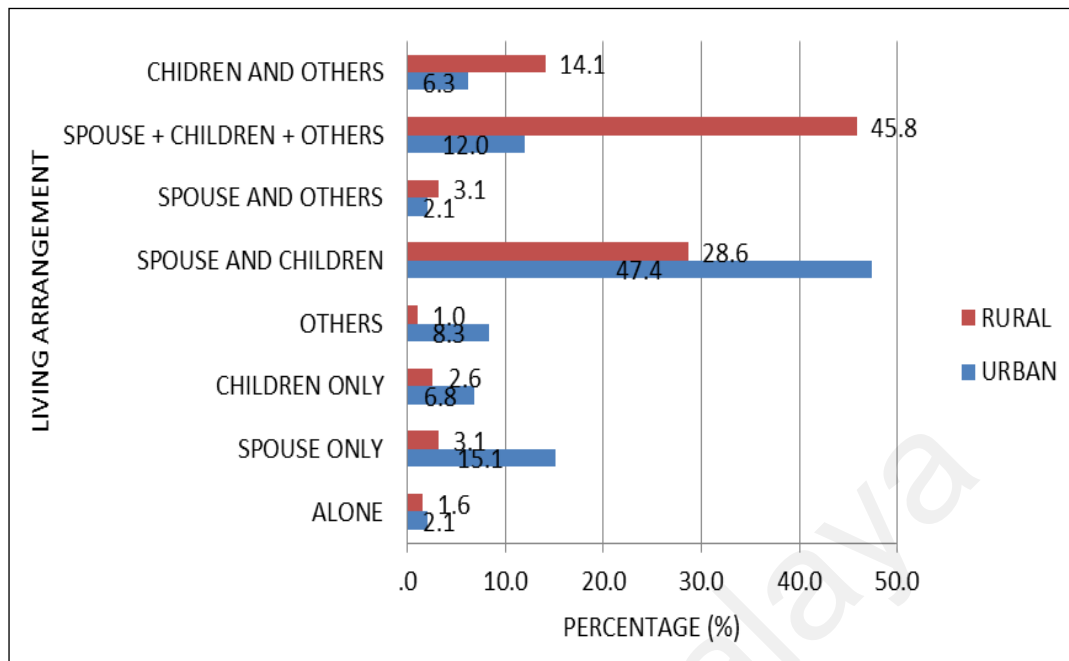


Figure 6.1: Living arrangement of respondent

In relation to this study, several previous studies conducted have shown that living arrangements are salient to the health of the elderly people (Lund et al., 2002; Li and Chen, 2011). Additionally, it is found out that a majority of the elderly people prefers to spend their time with their children, grandchildren and friends at home rather than going out and about (Selvaratnam and Tin, 2007). This is particularly important as this shows that the living arrangement of elderly may have a certain level of effect towards the housing need of the elderly.

Home ownership status of the elderly respondents was measured using a single measure item, “Who owns the current home that you are currently residing?”. A possible answer could be “myself as a sole owner,” “co-own,” “spouse,” “daughter / son,” “relatives,” “renting,” “quarters” and “others”. All in all, it can be concluded that a majority of both elderly living in urban and rural area owns the current home that they are currently residing in. It is also important to highlight that, in terms of elderly renting their current home, a higher proportion of them are currently living in urban area.

Additionally, by referring to Figure 6.2, in terms of having spouse/partner as the homeowner, the elderly in the rural area shows a higher percentage (28.1% rural area and 10.9% in rural area).

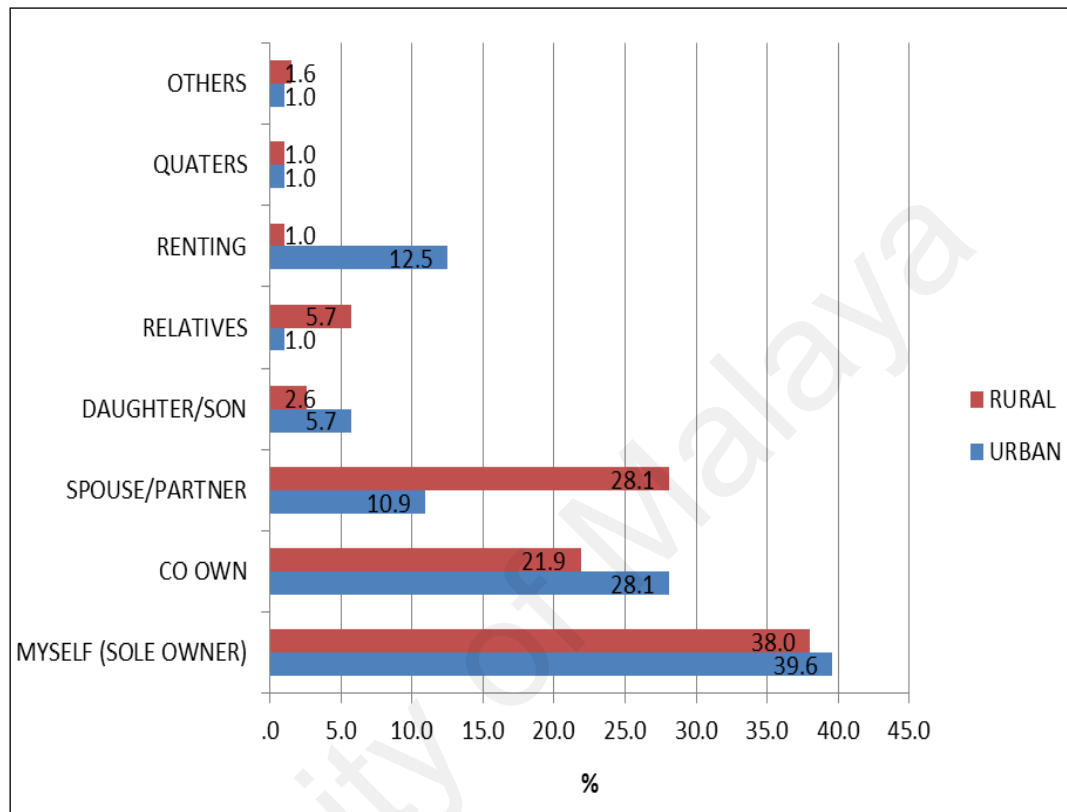


Figure 6.2: Ownership of house

For the urban respondents, only around 10.4% of them live in houses that were self-design and around 89.6% of them live in houses design by developers. Contrastingly, for the rural area, 96.4% of them live in houses that were self-design and only 3.6% live in houses that were designed by developers (refer to Figure 6.3).

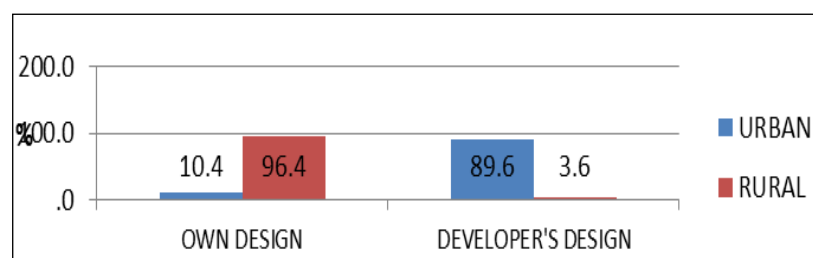


Figure 6.3: Design of house

A total of 68.2% of respondents living in the rural area live in traditional houses and 24% live in single storey bungalow. This perhaps gives an answer as to why a majority of the rural respondents live in self-design houses. On the other hand, for the urban respondents, a total of 35.9% of the respondents live in double storey terrace, 15.6% live in flats, 13.5% live in single storey terrace and 12.5% live in double storey bungalow.

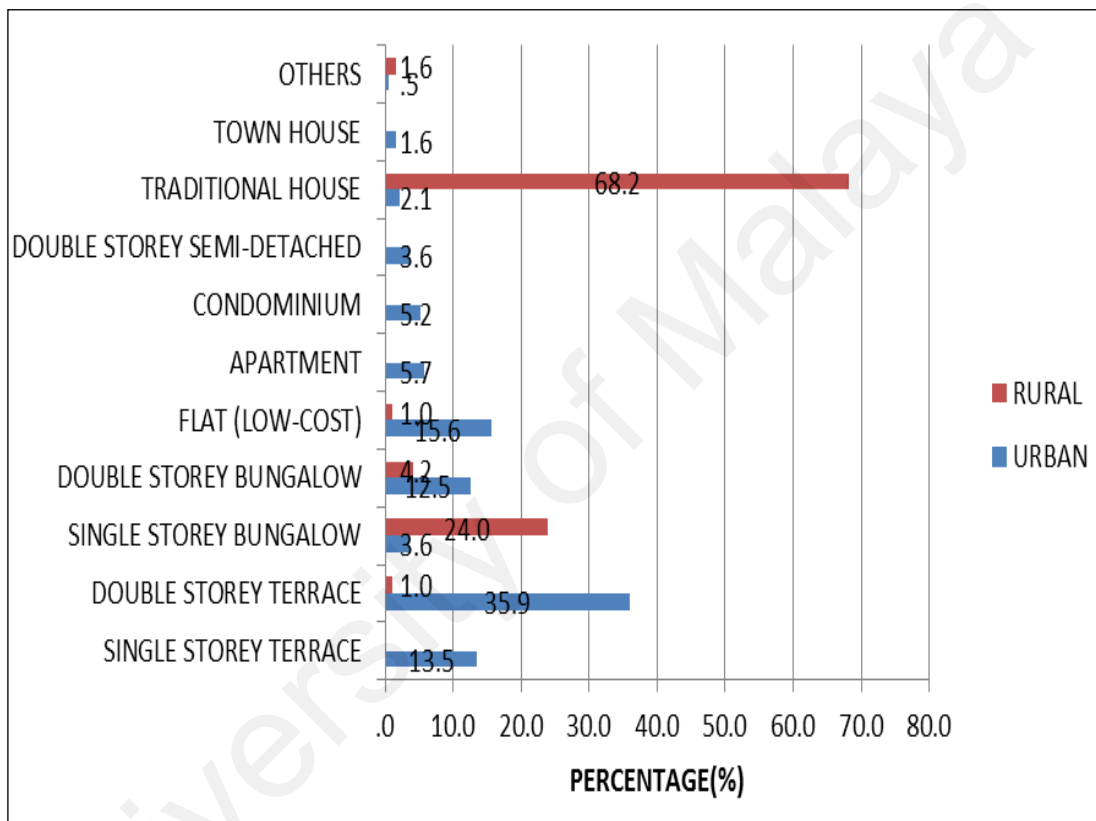


Figure 6.4: Type of current house

All in all, this section had laid out all general details of the respondents from the general background until the living arrangements as well as the current residence of the respondents. This section had provided details on whom and where our respondents live. Next section shall further present and compare the data on housing needs of elderly living in urban and rural area.

6.3 To What Extent Does the Housing Needs Differs Between Elderly Living in Urban and Rural Areas?

The face-to-face questionnaire survey conducted, managed to highlight similarities and differences between the housing needs of urban and rural elderly in Malaysia, which shall be presented in the following sections. This section comprises of four (4) subsections. The first section shall provide analysis and finding of descriptive and central tendencies of the main elderly housing needs variable. The second section shall show the findings of Mann-Whitney Tests which was carried out on the main elderly housing needs variable.

The third section is fully dedicated to elaborate on the results obtain from the Reliability Test of main elderly housing needs variable, using the Cronbach's Alpha Test. Lastly, the fourth section presents additional data which shall further highlights the similarities and difference between elderly urban- rural housing needs, in terms of essential areas in a house

6.3.1 Descriptive Analysis of Elderly Housing Needs Variables

This subsection comprises of 5 main parts, namely; Safety variable, Adequateness of Size, Important Attributes for Living Environments, Facilities as well as Housing External Environment.

i. Safety

From the findings shown in Table 6.3, the elderly living in urban area, the bathroom area seems to have lowest mean scores. Thus, in terms of safety, the urban elderly have the collective opinion that bathroom and kitchen are among the unsafe place in their house. Accordingly, this means that the elderly needs a safer bathroom and kitchen

area. More emphasise should be given by the government, developers, as well as other related authorities in improving the safety of the bathroom and kitchen area.

Table 6.3: Housing safety variables

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
URBAN	Entrance	.5	4.7	27.1	53.1	14.6	3.77
	Living area	.5	2.1	27.6	53.6	16.1	3.83
	Dining area	1.0	2.6	29.2	52.1	15.1	3.78
	Passageway	1.0	3.1	30.2	50.0	15.6	3.69
	Bedroom	1.0	3.1	30.2	50.0	15.6	3.76
	Bathroom	.5	8.3	30.2	47.4	13.5	3.60
	Kitchen	.5	8.3	30.2	47.4	13.5	3.61
	Compound	.7	5.7	27.7	49.6	16.3	3.75
	Staircases	.9	8.3	24.1	50.0	16.7	3.73
RURAL	Entrance	1.0	.5	26.6	65.6	6.3	3.76
	Living area	.5	.5	27.1	65.6	6.3	3.78
	Dining area	.0	1.0	27.6	65.1	6.3	3.77
	Passageway	.0	3.1	26.6	64.1	6.3	3.73
	Bedroom	1.0	3.1	30.2	50.0	15.6	3.69
	Bathroom	.5	8.3	30.2	47.4	13.5	3.47
	Kitchen	.5	8.3	30.2	47.4	13.5	3.69
	Compound	.0	3.2	25.1	65.2	6.4	3.75
	Staircases	.8	14.3	30.1	53.4	1.5	3.41

A study conducted by Lim et al. (2014), entitled “Risk factors of home injury among elderly people in Malaysia” stated that the prone to injury area in houses include the kitchen area, bathroom area, garden area as well as the stairs. On the other hand, in 2008, the Hong Kong government had implemented 5-year Home Environment Improvement Scheme for Elderly and published Design Manual: Barrier Free Access.

These schemes allow elderly to gain the benefit of getting free ramps or handrails or grab bars. These grab bars and handrails are especially important for the elderly when they are using the toilet as it helps them to have more support. The introduction of such

scheme is much needed as is seen to be able to improve the safety of the toilet area. On the other hand, the rural area indicated a similarity and differences in terms of their safety needs. The staircase as well as bathroom, displays the lowest scores (refer to Figure 6.6). Thus similarly, the bathroom is also considered to be among the unsafe place in the house. In addition to that, the staircase also seems to be the most unsafe place for the elderly in the rural area.

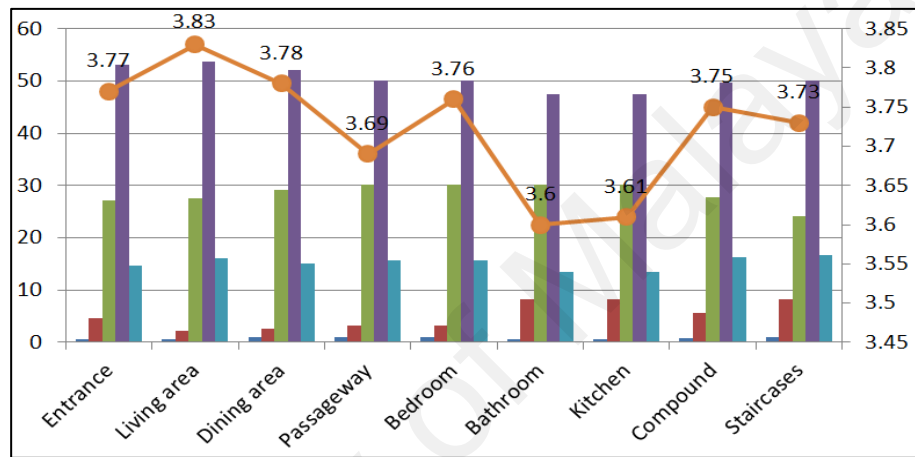


Figure 6.5: Housing safety variables (urban)

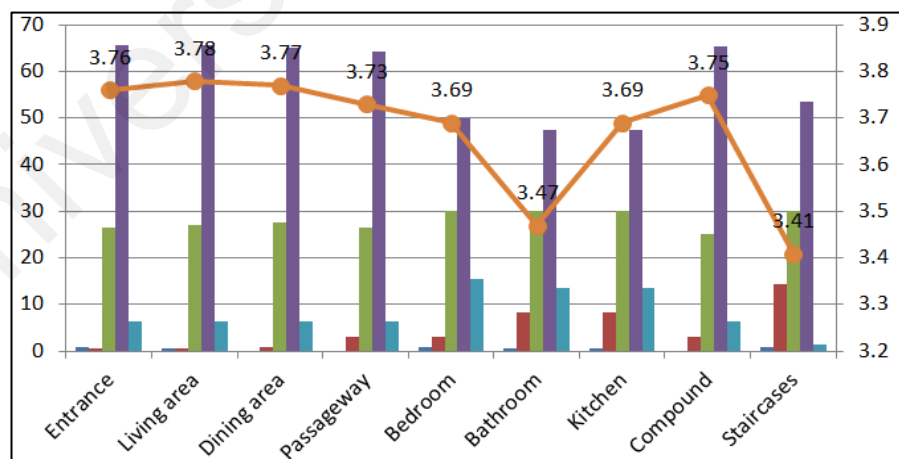


Figure 6.6: Housing safety variables (rural)

ii. Adequateness of Size

Looking into the needs of elderly in terms of size is important because the house that does not meet the size needed may have negative implications towards the elderly (Weeks and LeBlanc, 2010). According to Weeks and LeBlanc (2010), among the negative side of not meeting the needs in terms of size are the privacy issue as well as a maintenance issue. Having too small house, leads to privacy issue whereas having too large house leads to difficulty in maintenance issue.

Table 6.4: Housing adequateness of size variables

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
URBAN	Entrance	.5	6.8	29.7	47.9	15.1	3.70
	living area	1.0	7.3	30.2	47.4	14.1	3.66
	dining area	1.0	8.3	28.1	47.9	14.6	3.67
	passageway	1.6	14.6	25.5	45.8	12.5	3.60
	Bedroom	1.6	14.6	25.5	45.8	12.5	3.53
	Bathroom	2.1	16.7	24.5	43.8	13.0	3.49
	Kitchen	2.6	14.6	25.0	43.8	14.1	3.52
	Compound	1.4	9.9	25.5	46.1	17.0	3.67
	Staircases	3.7	9.3	18.5	48.1	20.4	3.72
RURAL	Entrance	.0	1.0	25.5	65.6	7.8	3.80
	living area	.5	14.1	24.5	53.1	7.8	3.54
	dining area	.5	5.7	26.6	59.9	7.3	3.68
	passageway	.5	3.1	28.6	59.9	7.8	3.71
	Bedroom	3.1	15.6	23.4	49.5	8.3	3.43
	Bathroom	2.6	17.7	21.9	51.0	6.8	3.42
	Kitchen	3.6	14.1	23.4	51.0	7.8	3.45
	Compound	.0	.5	28.3	63.1	8.0	3.79
	Staircases	.0	1.5	35.3	57.9	5.3	3.67

In a study on the elderly housing mobility by Hansen and Gottschalk (2006), it was reported that elderly who live in dwellings that are too small for their needs have thoughts and considers in moving into a bigger house. Whereas, elderly who live alone in houses that are too large will consider on moving out as the housing expenses no longer fits their economic capabilities. Additionally, elderly who live in a dwelling with

good accessibility consider moving to a lesser extent than those living in a dwelling with stairs (Hansen and Gottschalk, 2006). In relation to this study, the urban respondent's scores a total mean of 3.43 and 3.42, it is notable to us that the bathroom and kitchen area seems to have problems in terms of adequateness of size (refer to Table 6.4 and Figure 6.7). Whereas for referring to Figure 6.8, it is noted that for rural respondents, bedroom and bathroom area are the areas listed as having most problem in terms of its size.

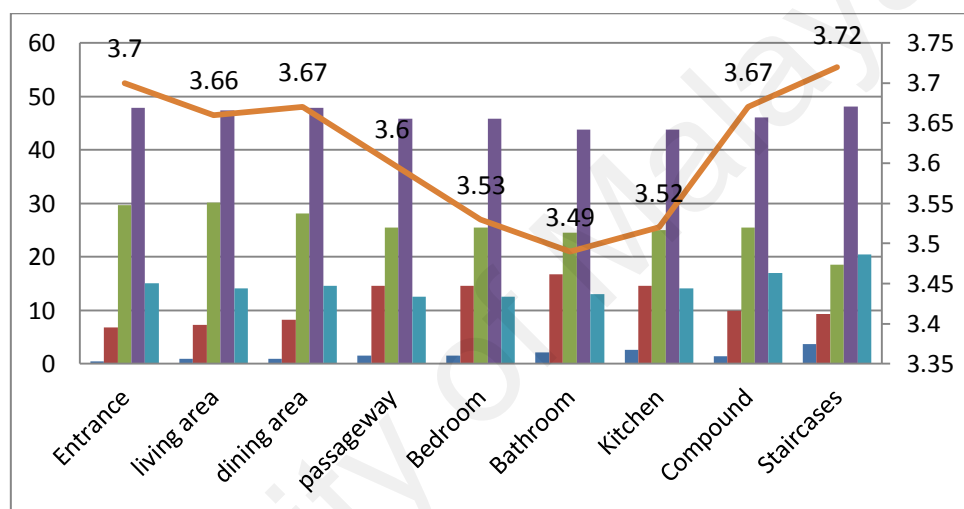


Figure 6.7: Housing adequateness of size variables (urban)

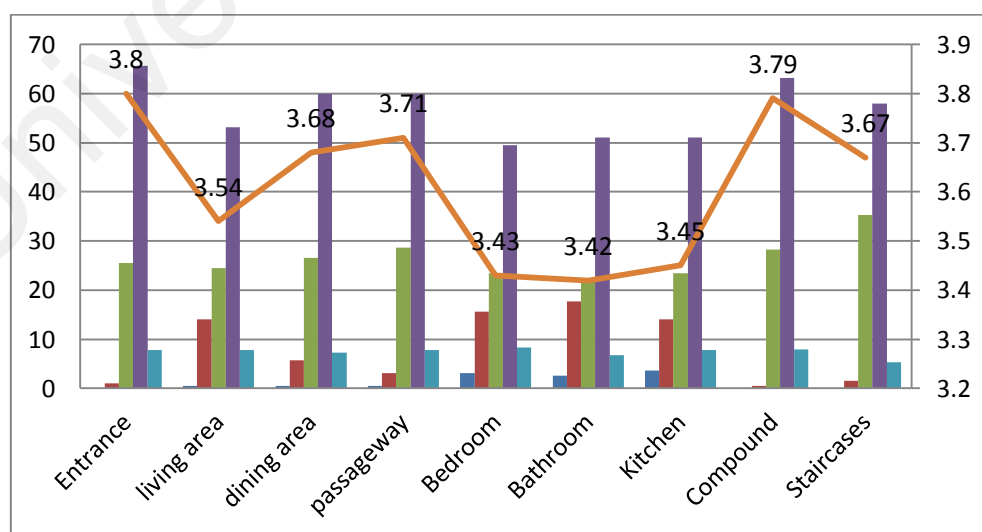


Figure 6.8: Housing adequateness of size variables (rural)

iii. Important Attributes for Living Environments

According to Weeks and LeBlanc (2010), access to phone, neighbourhood safety issue as well as burglar alarm are among the issue concerning the safety and security. Housing and Development Board (2006) in Singapore had introduced Universal Design features in their new housing project. These include locating power sockets and switches at heights accessible to the wheelchair bound and wider internal corridors for wheelchair access as well as setting aside space within the apartment for future accessibility needs of the residents, for example, grab bars. This can greatly improve the safety and security as well as the internal mobility of the elderly.

Table 6.5: Housing living environments variables

		Very Unimportant	Unimportant	Moderately Important	Important	Very Important	Mean
URBAN	Size	1.6	6.3	18.8	53.1	20.3	3.84
	layout and design	1.0	4.7	21.9	54.2	18.2	3.84
	internal mobility	.5	3.6	25.5	55.7	14.6	3.80
	aesthetic value	3.6	9.4	35.4	37.5	14.1	3.49
	health	1.0	.0	10.4	52.1	36.5	4.23
	safety and security	.5	.0	10.9	44.3	44.3	4.32
	specific design for elderly	.5	1.6	29.2	35.4	33.3	3.99
	recreational and amenities	1.0	3.1	29.2	35.4	31.3	3.93
	affordable living cost	1.6	.0	21.4	34.4	42.7	4.17
RURAL	size	2.1	.5	15.1	50.5	31.8	4.09
	layout and design	.0	1.6	37.5	42.7	18.2	3.78
	internal mobility	.5	1.6	38.0	41.7	18.2	3.76
	aesthetic value	3.6	11.5	34.9	25.0	25.0	3.56
	health	.0	.0	9.5	25.5	65.0	4.60
	safety and security	.0	.0	10.9	25.0	64.1	4.53
	specific design for elderly	.0	2.6	20.8	25.0	51.6	4.26
	recreational and amenities	.0	2.6	20.3	26.0	51.0	4.26
	affordable living cost	.5	.5	10.4	12.5	76.0	4.63

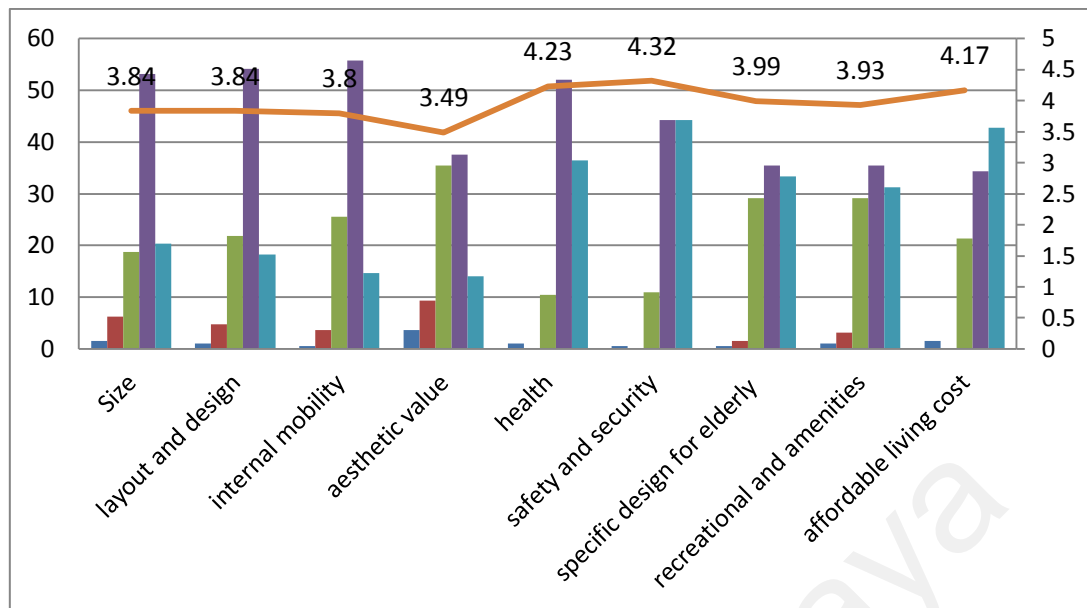


Figure 6.9: Housing living environments variables (urban)

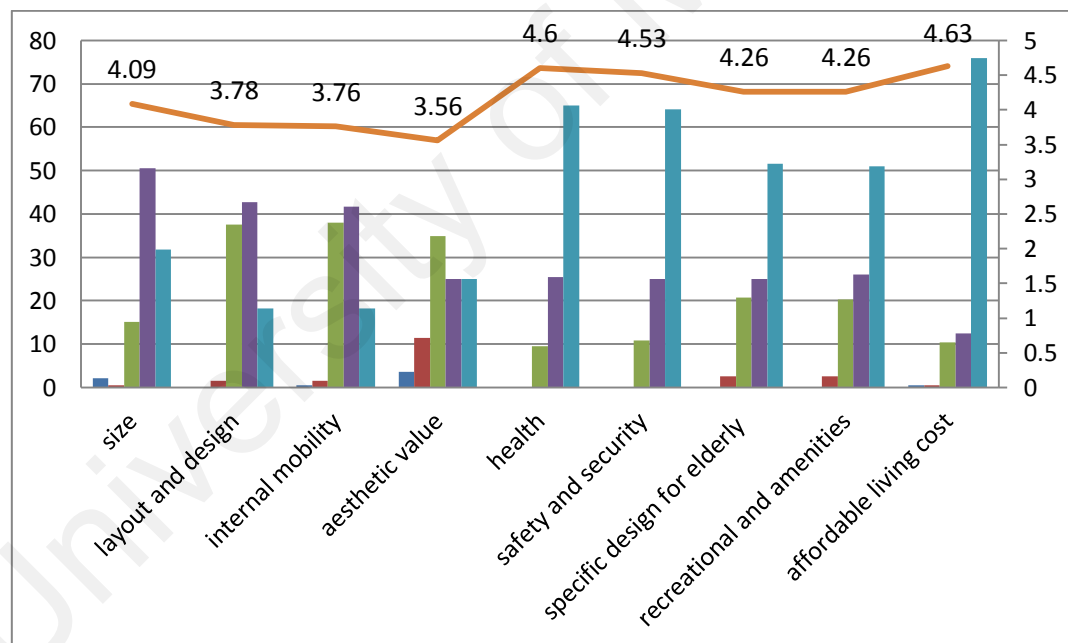


Figure 6.10: Housing living environments variables (rural)

As shown in Table 6.5 and Figure 6.9 (which have mean of 4.23 and 4.32 respectively), safety and security as well as the health attributes of the house are among the most important attributes for the urban respondents. According to the statistical department, in the year 2012 alone, there are around 153,669 crimes being reported to the PDRM

and these crimes are primarily concentrated within the major cities such as the Kuala Lumpur area. This figure alone helps to shed a light as to why the urban respondents seem to take the safety and security issue more seriously as compared to their fellow elderly friend residing in the rural area (refer to Figure 6.10).

iv. Facilities

In terms of facilities, the urban area people state that their areas have poor public transportation system and walking area. By referring to Table 6.6 and Figure 6.11, we are able to note that urban elderly scores mean for public transportation as 3.58 and walking area as 3.57 respectively.

The need for a better walking area may be contributed to the fact that the urban area lacks green area. The fact that an urban respondent also feels the needs to have better public transportation may be due to the fact that congestion within the Kuala Lumpur area is worsening. Thus, public transportation may be the main option preferred by the elderly that chooses to go around independently.

Table 6.6: Facilities variables

		Very poor	Poor	Average	Good	Very good	Mean
URBAN	social and leisure	1.0	3.6	38.5	41.7	15.1	3.66
	facilities	.5	5.2	23.4	51.0	19.8	3.84
	health facilities	1.0	3.6	27.1	46.4	21.9	3.84
	public transportation	3.6	9.9	30.7	37.0	18.8	3.58
	walking area	1.6	10.4	31.3	41.7	15.1	3.57
RURAL	social and leisure	0	0	23.4	38.5	38.0	4.15
	facilities	.5	14.1	41.7	37.5	6.3	3.35
	health facilities	0	13.0	47.9	33.9	5.2	3.31
	public transportation	5.7	34.9	41.7	14.1	3.6	2.75
	walking area	4.2	21.4	52.1	15.6	6.8	3.99

Rural area elderly also seems to feel the same need towards better public transportation. A study conducted by Ismail et al. (2012) on the Passengers Preference and Satisfaction of Public Transport in Malaysia, stated that in order to keep and attract more passengers, public transport must have high service quality to satisfy and fulfil a wide range of different customer's needs. Consequently according to them, understanding what drives customer satisfaction and dissatisfaction towards public transport is a must. Additionally, Ismail also mentions the fact that a wide range of different customer's needs exists, this significantly link to our study where elderly and OKU are among the people that have slightly special needs compared to other Malaysians.

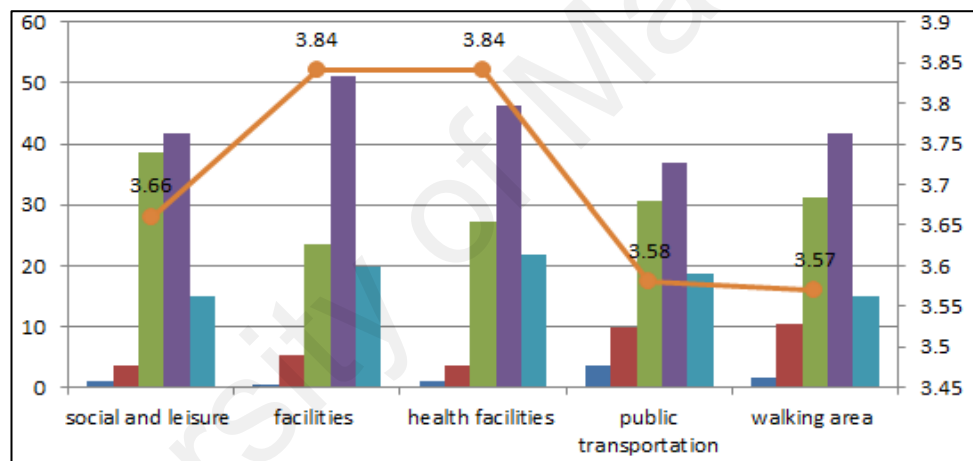


Figure 6.11: Facilities variables (urban)

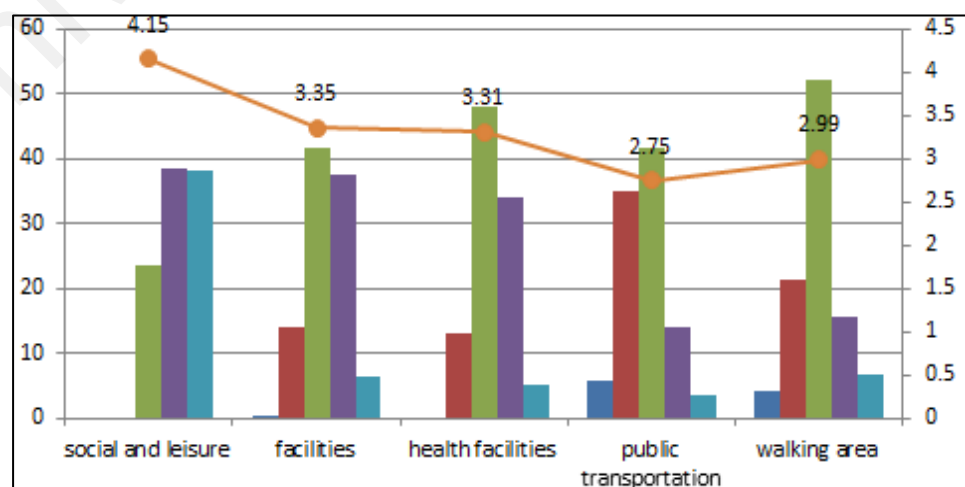


Figure 6.12: Facilities variables (rural)

v. Housing External Environment

For the housing environment section, the respondents were asked whether each of the housing environments attributes were a problem to them. The 5-likert scale is used, where the respondent are required to choose either “serious problem”, “problem”, “uncertain”, “minor problem” or “not a problem” as their answer. As shown in Table 6.7, the crime rate and air quality have means of 3.02 and 3.18 for the responses from the urban respondents of which are the seen as the main problem within urban area..

Table 6.7: Housing environments variables

		Serious problem	Problem	Uncertain	Minor problem	Not a problem	Mean
URBAN	speed of traffic	7.3	20.3	20.3	34.4	17.7	3.35
	volume of traffic	6.8	20.3	20.3	34.4	18.2	3.37
	noise	3.6	14.6	30.7	29.2	21.9	3.51
	crime rate	5.7	29.2	30.2	27.1	7.8	3.02
	air quality	3.6	22.4	37.5	25.0	11.5	3.18
	Cleanliness	3.6	19.3	31.8	32.8	12.5	3.31
	vandalism	2.1	12.5	32.8	28.1	24.5	3.60
	uneven pavement	2.6	9.9	33.9	26.0	27.6	3.66
	animal's litters	2.6	14.1	28.1	25.5	29.7	3.66
RURAL	speed of traffic	3.1	18.2	10.9	42.2	25.5	3.70
	volume of traffic	3.1	18.2	11.5	41.1	26.0	3.70
	noise	2.1	10.9	17.2	42.2	27.6	3.82
	crime rate	2.6	12.5	17.2	44.8	22.9	3.73
	air quality	.0	11.5	21.4	41.1	26.0	3.82
	Cleanliness	2.1	28.6	19.3	35.4	14.6	3.32
	vandalism	1.6	22.9	12.5	26.0	37.0	3.74
	uneven pavement	.0	.5	17.2	33.9	48.4	4.30
	animal's litters	.0	1.6	15.6	31.8	51.0	4.32

The research conducted on the “Fear of crime and personal vulnerability” found out that fear of crime is found to be significantly higher in elderly and poor people as compared to the younger or richer individuals (Cossman, 2011). Thus, the fact that Kuala Lumpur is experiencing repid increase in number of crime rate, had led to the fact that elderly increasingly feels insecure over the higher concerns on crime rate. Thus, it is important for us to look into the safety needs of the elderly as constant fear

can lead to another health issue such as an increase in stress level. The urban elderly are also primarily concern with their air quality.

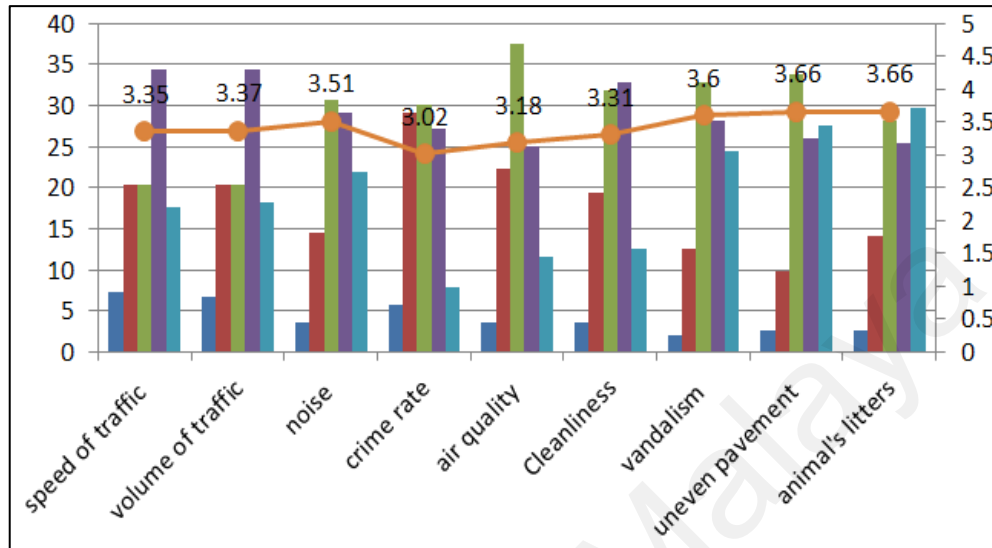


Figure 6.13: Housing environments variables (urban)

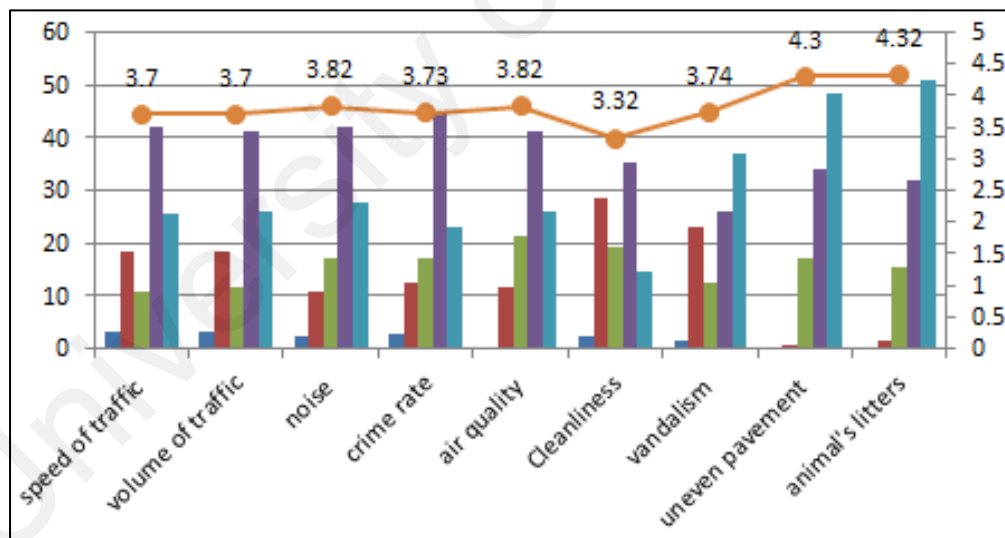


Figure 6.14: Housing environments variables (rural)

However, it is also needed to be highlighted in this report that during the period of questionnaire distribution in the urban area, a very alarming and strong haze surrounded the study area. This may also lead to this high level of stress put on the air quality issue. With the mean total of 3.32, the cleanliness issue is the main needs that

were focused by the rural elderly (refer to Table 6.7 and Figure 6.14). However, when we compare between urban and rural, it can be seen that in terms of housing environment actually the rural area have higher scores compared to the urban area

As conclusion, this subsection had provided comparison on the housing needs of elderly both in urban and rural area in Malaysia. The next subsection will primarily explain on the Mann-Whitney U Test conducted on the variables in this study.

6.3.2 Mann-Whitney U Test

The logic behind the Mann-Whitney test is to rank the data for each condition, and then see how different the two rank totals are (Corder and Foreman, 2009). If there is a systematic difference between the two conditions, then most of the high ranks will belong to one condition and most of the low ranks will belong to the other one. As a result, the rank totals will be quite different. On the other hand, if the two conditions are similar, then high and low ranks will be distributed fairly evenly between the two conditions and the rank totals will be fairly similar. The Mann-Whitney test statistic "U" reflects the difference between the two rank totals (Hinton et al., 2014). The smaller it is (taking into account how many participants you have in each group) then the less likely it is to have occurred by chance.

Table 6.8: Mann-Whitney U Test (respondent general info)

Respondent's general Info	<i>p</i> -value	Mean rank	
		Urban	Rural
Age group	.006	179.00	206.00
Gender	.733	190.73	194.27
Ethnic	.000	227.38	157.63
Marital status	.189	187.14	197.86
Education level	.000	241.77	143.23
Household net income	.008	202.14	173.63

Table 6.8 shows the Mann-Whitney U test of the respondents' general info, between urban and rural elderly. The p-value of $p < 0.05$ means that significant difference does exist. The table above shows that significant difference does exist in age group, ethnic, education level and household net income of the urban-rural elderly. This indicates that elderly of the urban and rural area have differences in opinion when they are divided in terms of their age group, ethnic, education level and household net income

Table 6.9: Mann-Whitney U Test (housing safety)

Housing safety	p-value	Mean rank	
		Urban	Rural
Entrance	.821	193.62	191.38
Living area	.358	197.06	187.94
Dining area	.744	194.13	190.87
Passageway	.537	189.37	195.63
Bedroom	.383	196.93	188.07
Bathroom	.258	198.45	186.55
Kitchen	.650	190.18	194.82
Compound	.858	165.45	163.78
Staircases	.002	134.76	109.83

By referring to Table 6.9, the urban and rural elderly does not display any significant differences in terms of their housing safety variable. The only exception is for the staircases safety, where the p-value is 0.002. The staircases are the only variable that shows differences when it comes to the urban and rural segregation. The urban and rural elderly also shows no significance difference when it comes to their housing size. Both the urban and rural elderly have the similar opinion on their housing size. Thus, this resulted in the p-value as shown in Table 6.10.

Table 6.10: Mann-Whitney U Test (housing size)

Housing size	p-value	Mean rank	
		Urban	Rural
Entrance	.270	186.93	198.07
Living area	.229	198.78	186.22
Dining area	.971	192.31	192.69
Passageway	.268	186.78	198.22
Bedroom	.457	196.43	188.57
Bathroom	.517	195.93	189.07
Kitchen	.552	195.65	189.35
Compound	.484	160.72	167.35
Staircases	.131	127.82	115.46

Table 6.11: Mann-Whitney U Test (housing living environments variables)

Housing living environments	p-value	Mean rank	
		Urban	Rural
Size	.003	177.10	207.90
layout and design	.166	199.74	185.26
internal mobility	.330	197.58	187.42
aesthetic value	.528	189.08	195.92
Health	.000	169.05	215.95
safety and security	.001	175.34	209.66
specific design for elderly	.002	175.77	209.23
recreational and amenities	.000	172.85	212.15
affordable living cost	.000	161.59	223.42

Table 6.11 indicates that the only variable that does not display significant difference when being compared in terms of their area (urban-rural) are the layout and design, internal mobility as well as the aesthetic value variable. Others such as the health variable, recreational and amenities as well as living costs have p-value 0.00 which is definitely significant difference since it is of $p < 0.05$.

Table 6.12: Mann-Whitney U Test (facilities variables)

Facilities variables	p-value	Mean rank	
		Urban	Rural
social and leisure facilities	.000	162.83	222.17
health facilities	.000	223.51	161.49
public transportation	.000	226.39	158.61
walking area	.000	236.13	148.87
	.000	226.82	158.18

The p-value for all facilities variable shows $p < 0.05$ (refer to Table 6.12). This indicates that all the variable have a significant difference when being tested against urban and rural elderly. A significant difference exists for the entire facilities variable when it is tested against the area (urban-rural factor).

Table 6.13: Mann-Whitney U Test (housing environments variables)

Housing environments	p-value	Mean rank	
		Urban	Rural
speed of traffic	.004	176.85	208.15
volume of traffic	.007	177.72	207.28
noise	.003	176.37	208.63
crime rate	.000	157.07	227.93
air quality	.000	159.66	225.34
Cleanliness	.952	192.17	192.83
vandalism	.135	184.33	200.67
uneven pavement	.000	159.96	225.04
animal's litters	.000	160.43	224.57

Table 6.13 indicates that only the volume of traffic, cleanliness and vandalism have p value of more than 0.05. This signifies that a significant difference exists for the other variables, as they achieve a p value of $p < 0.05$. Thus, this subsection had provided and explained in details on the Mann-Whitney U Test results which had been conducted on the variables used this study. Following this subsection, the subsection 6.3.3 shall further elaborate on the Cronbach's Alpha result analysis.

6.3.3 Reliability Test Using Cronbach's Alpha

Cronbach's alpha reliability coefficients of the independent and dependent variables were obtained from the Likert scale questions on the housing needs variable of the questionnaire. The result indicates that the Cronbach's alpha measure is between .768 and .943 (see Table 6.14). Cronbach's alpha test is carried out to show how much the project is accepted or preferred. It is acceptable when the value is above 0.7 whereas it is preferable when the value is above 0.8. In this study, the Cronbach's alpha for the safe is above 0.7. It showed that the data analysed has reasonable internal consistency reliability amongst the variables. In general, this analysis is considered acceptable. Cases having a low value of alpha value may be due to poor interrelatedness between items and due to a low number of questions (Tavakol and Dennick, 2011). However, this may not be the case in this study, as this study achieves a high value of alpha. The correlation of each test item was not conducted due to the fact that in general, the result is acceptable.

Table 6.14: Cronbach's Alpha result analysis

	Cronbach's alpha	Cronbach's alpha based on standardized items	Reject/ Acceptable/ Preferable
Safe	.943	.948	Preferable
Size	.938	.940	Preferable
Important attributes for living environments	.842	.850	Preferable
Facilities	.768	.771	Acceptable
Housing environment	.882	.882	Preferable

All in all, the tables above had provided data on Cronbach's Alpha results and had further elaborate in detail the data. The subsection 6.3.4 shall provide additional data which will highlights the similarities and difference between elderly urban- rural housing needs, in terms of essential areas in a house

6.3.4 Difference Between Urban-Rural Area, in Terms of Essential Areas in a House

In terms of a number of bedrooms in the house, the majority of the elderly urban dwellers seems to reside in houses that have 3-4 bedrooms. A total of 42.7% live in a house that has 3 bedrooms and a total of 26.6% of urban elderly live in houses that have 4 bedrooms. Mean for the urban elderly number of bedroom in house indicates a value of 5.67. Whereas, mean for the rural elderly number of bedroom indicates a value of 8.24. Around 57.3% of the rural elderly live in houses that have 4 bedrooms and around 23.4% of them live in houses that have 5 bedrooms. Thus, we can see that elderly in the rural area live in houses that have 4-5 numbers of bedrooms. In brief, we can conclude that the urban elderly live in houses that have lesser number of bedrooms and are a bit small in size as compared to their rural counterparts.

Table 6.15: Differences of urban and rural area in terms of number of bedrooms and bathroom

		AREA			
		URBAN		RURAL	
		within AREA	Total	within AREA	Total
NUMBER OF BEDROOM IN HOUSE	1	.5%	.3%	.5%	.3%
	2	10.4%	5.2%	2.6%	1.3%
	3	42.7%	21.4%	10.4%	5.2%
	4	26.6%	13.3%	57.3%	28.6%
	5	14.1%	7.0%	23.4%	11.7%
	others	5.7%	2.9%	5.7%	2.9%
Total		100.0%	50.0%	100.0%	50.0%
Mean		5.67		8.24	
NUMBER OF BATHROOM INSIDE HOUSE	1	18.8%	9.4%	37.5%	18.8%
	2	32.8%	16.4%	42.7%	21.4%
	3	35.9%	18.0%	18.8%	9.4%
	4	9.4%	4.7%	1.0%	.5%
	others	3.1%	1.6%	.0%	.0%
Total		100.0%	50.0%	100.0%	50.0%
Mean		1.83		4.70	

The urban trends of having lesser number of bedroom and bathrooms is mainly due to the higher cost factor of housing size price (per square feet). Urban dwellers are largely affected by the price and affordability of the housing units (Hashim, 2010; Salfarina et al., 2010). Bigger units simply implied: higher housing price and higher maintenance cost. For example, a house unit having more bedrooms will have bigger size (square feet), which will directly resulted in higher housing value. Similarly with the idea of urban elderly living in house with lesser number of bedroom (due to high price of house), elderly living in the urban area also seem to be living in houses that have a lesser number of the bathroom as compared to rural elderly. Mean for bathroom indicates value of 1.83 for urban elderly and 4.70 for rural elderly (refer to Table 6.15).

Table 6.16 shows the crosstab analysis done between the flooring materials and area of the study. In terms of floor finishes, it is observable that a high percentage of the urban elderly have the marble as their bedroom floor finishes. Among the significant percentage noted for the urban elderly bedroom floor finishes is the marble (20.3%), cement render (16.7%) as well as the parquet (15.6%).

On the other hand, a high percentage of the rural elderly have wood floorings as their bedroom flooring finishes. With a high percentage of 52.1%, the wood floorings are labelled as others in Table 6.16. For flooring materials in the bathroom, with a total of 42.7%, it can be drawn that the urban elderly is more inclined to install mosaic flooring. On the contrary, the rural elderly seems to be more modestly satisfied with having just cement render as their bathroom floor finishes. This is true because, for the rural elderly, the floorings of cement render have 45.3%, ceramic have a percentage of 28.6%, mosaic with 25.5% and marble with least than 1%. Additionally, we move into the kitchen area of the elderly house. For the urban respondents, a total of 32.3% of the respondents install mosaic as their kitchen flooring, 25.5% install ceramic, 21.4%

install marble, 16.7% chooses cement render and about 1% install terrazzo. We can see that the urban elderly prefers mosaics as their kitchen floor finishes and least prefer the terrazzo as their kitchen flooring.

Table 6.16: Differences of the urban and rural area in terms of flooring of bedrooms, bathroom and kitchen area

		AREA				TOTAL	
		URBAN		RURAL			
		% within AREA	% of Total	% within AREA	% of Total	% within AREA	% of Total
TYPE OF FLOORING MATERIALS IN BEDROOM	Mosaic	9.9%	4.9%	3.1%	1.6%	6.5%	6.5%
	Ceramic	9.4%	4.7%	26.6%	13.3%	18.0%	18.0%
	Marble	20.3%	10.2%	2.6%	1.3%	11.5%	11.5%
	Parquet	15.6%	7.8%	.0%	.0%	7.8%	7.8%
	Carpeted	4.7%	2.3%	.0%	.0%	2.3%	2.3%
	Terrazzo	4.7%	2.3%	.0%	.0%	2.3%	2.3%
	Cement R.	16.7%	8.3%	10.9%	5.5%	13.8%	13.8%
	Timber Flooring	14.6%	7.3%	4.7%	2.3%	9.6%	9.6%
	Others	4.2%	2.1%	52.1%	26.0%	28.1%	28.1%
Total		100.0%	50.0%	100.0%	50.0%	100.0%	100.0%
TYPE OF FLOORING MATERIALS IN BATHROOM	Mosaic	42.7%	21.4%	25.5%	12.8%	34.1%	34.1%
	Ceramic	22.4%	11.2%	28.6%	14.3%	25.5%	25.5%
	Marble	19.3%	9.6%	.5%	.3%	9.9%	9.9%
	Cement R.	13.5%	6.8%	45.3%	22.7%	29.4%	29.4%
	Others	2.1%	1.0%	.0%	.0%	1.0%	1.0%
Total		100.0%	50.0%	100.0%	50.0%	100.0%	100.0%
TYPE OF FLOORING MATERIALS IN KITCHEN	Mosaic	32.3%	16.1%	3.6%	1.8%	18.0%	18.0%
	Ceramic	25.5%	12.8%	38.0%	19.0%	31.8%	31.8%
	Marble	21.4%	10.7%	.5%	.3%	10.9%	10.9%
	Terrazzo	1.0%	.5%	.0%	.0%	.5%	.5%
	Cement R.	16.7%	8.3%	56.3%	28.1%	36.5%	36.5%
	Others	3.1%	1.6%	1.6%	.8%	2.3%	2.3%
Total		100.0%	50.0%	100.0%	50.0%	100.0%	100.0%

In conclusion, this section had provided the comparison of housing needs between the urban and rural elderly in Malaysia. The section 6.4 of this study shall further detail out on the aspirations and future housing consideration of urban and rural elderly in Malaysia.

6.4 What is the Aspiration of Urban and Rural Elderly, in terms of Housing in the Future?

This section is dedicated to further elaborate the aspirations and future housing plans of the elderly in both urban and rural areas in Malaysia. This includes detail description on whether the elderly respondents consider moving in future, plans for their current house as well as their future housing consideration (with respect to location and type of house).

6.4.1 Consideration to Move in the Future

With a total of 93.8% and 76%, we can generally conclude that a majority of respondents, both from the urban and rural area had no intention of moving out of their current houses. 15.6% of the urban respondents stated that they have intentions of moving out of their current house. Thus, it is notable that there are a slightly higher number of urban respondents that considers moving out of their current house, as compared to the rural respondents.

In terms of being undecided and have not thought about moving out, there are no significant differences shown between the urban and rural respondents. Figure 6.15 illustrates that both the elderly group, either from the urban or rural area is unwilling to move and actually prefers ageing in place. A research conducted Dye et al. (2010) concluded that elderly prefers to age in place or stay within an area which he/she is familiar to. On a similar research conducted in Spain, it is found out that more than the 78% of Spanish seniors prefer to remain at home in case of dependency and to live in their own property till the end of their days, perhaps helped by some assisted facility or caregiver in addition to relatives (Jimenez and Koebel, 2007).

Furthermore, most elderly displays high residential stability as they age and are highly attached to their current neighbourhood and current house (Scharf et al., 2005; Oswald et al., 2011). Thus, this figure does support the statement made by the researchers (refer Figure 6.15).

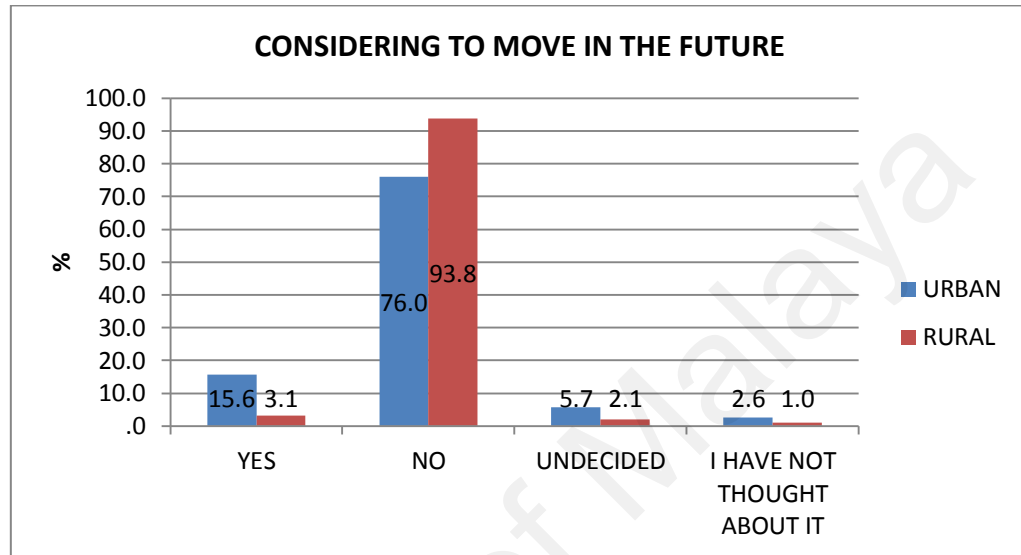


Figure 6.15: Consideration to move in future

Further analysis was done by producing the cross-tabulation on each of the variables (considering to move, plan for current house, type of house that respondents plan to upon moving out of current house as well as the location of the future house) with the data on demographic profile of respondents (age group, gender, ethnic, education level, income).

Table 6.17 shows the cross-tabulation done between the variable of “considering to move out” and the age group of respondents. Based on the table, it can be deduced that both urban and rural respondents showed a very similar pattern, where older respondents tend to prefer not to move out of their current house.

However, the sense of preferring to age in place is significantly higher in a rural area. This is true since there is a higher percentage of urban elderly wanting to move out

according to their age (50-59 years old with 24.7%, 60-69 years old with 22.4% and 70 years old and above with 3.3%). The rural elderly indicated that only the elderly of the age 50-59 years old have the intention to move out (6.1%).

Table 6.17: Relationship between the variable “considering to move” with the age group, gender, ethnic and marital status

AREA	Variable	Descriptions	CONSIDERING TO MOVE IN THE FUTURE			
			Yes	No	Undecided	Have not thought about it
URBAN	AGE GROUP	50 - 59 years old	24.7%	62.6%	8.4%	4.2%
		60 - 69 years old	22.4%	71.6%	4.5%	1.5%
		70 years and above	3.3%	96.7%		
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	AGE GROUP	50 - 59 years old	6.1%	92.9%	1.0%	
		60 - 69 years old		92.3%	3.8%	3.8%
		70 years and above		97.6%	2.4%	
		Total	3.1%	93.8%	2.1%	1.0%
URBAN	GENDER	Male	17.0%	72.3%	8.9%	1.8%
		Female	13.8%	81.3%	1.3%	3.8%
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	GENDER	Male	4.7%	90.6%	3.5%	1.2%
		Female	1.9%	96.3%	.9%	.9%
		Total	3.1%	93.8%	2.1%	1.0%
URBAN	ETHNIC	Malay	18.8%	72.6%	4.3%	4.3%
		Chinese	9.8%	82.4%	7.8%	
		Indian	13.6%	81.8%	4.5%	
		Others (Bumiputera)		50.0%	50.0%	
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	ETHNIC	Malay	3.2%	94.6%	1.1%	1.1%
		Chinese		66.7%	33.3%	
		Total	3.1%	93.8%	2.1%	1.0%
URBAN	MARITAL STATUS	Single/Never married		62.5%	37.5%	
		Married	17.6%	73.9%	5.2%	3.3%
		Divorce		100.0%		
		Widow	10.7%	89.3%		
		Others		100.0%		
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	MARITAL STATUS	Single/Never married		100.0%		
		Married	4.1%	91.8%	2.7%	1.4%
		Divorce		100.0%		
		Widowed		100.0%		
		Total	3.1%	93.8%	2.1%	1.0%

In a study conducted by Costa-Font et al. (2009) on the elderly found out that the preference for “ageing in place” becomes more and more significant as the elderly grew older. Thus, this supports the findings made in this study. Table 6.17 further shows cross-tab between “considering moving” and gender. For both urban and rural area, the figure indicated that female respondents are more unwilling to move out of their current house compared to their male counterparts (81.3% of urban female respondents and 96.3% of rural female respondents). Both genders in the rural area display a relatively low percentage (4.7% male and 1.9% female) of “considering to move”, as compared to the respondents in an urban area (17.0% male, 13.8% female).

Additionally, Table 6.17 shows the cross tabulation between the variable of considering to move out and the ethnicity of respondents. Malays in an urban area are seen to be more open to other options of living arrangements (18.8% for urban malay elderly). With a total percentage of 3.2%, the rural Malays are seen to be more unwilling to move out of their current house, compared to the urban Malays, who happens to be a bit more reluctant to move out.

Table 6.17 also shows the cross-tabulation of “considering to move” with the respondents’ marital status. Married elderly also displays a higher percentage (17.6% urban elderly, 4.1% rural elderly) of wanting to move out of their current house in the future. In relation to this, there is also a substantial body of gerontology research that had demonstrated the importance of and linked between marital status, migration and housing (Bonnet et al., 2010; Hansen and Gottschalk, 2006; Chevan, 1995). Additionally, it is also linked that women are seen more often than men to react to having become single by moving as they make use of a coping strategy that involves adapting the surroundings to their situation (Hansen and Gottschalk, 2006).

Table 6.18: Relationship between the variable “considering to move” with education level

AREA	Variable	Descriptions	CONSIDERING TO MOVE IN THE FUTURE			
			Yes	No	Undecided	Have not thought about it
URBAN	Education level	No Proper Education	33.3%	66.7%		
		Primary school	22.2%	77.8%		
		PMR/SRP/LCE		72.7%	27.3%	
		SPM/SPMV/MCE	16.3%	73.5%	6.1%	4.1%
		STPM/STAM/MATRIC.	18.2%	72.7%		9.1%
		Certificate	27.3%	72.7%		
		Higher Education	12.7%	78.5%	6.3%	2.5%
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	Education Level	No Proper Education		94.4%	2.8%	2.8%
		Primary school		96.6%	1.7%	1.7%
		PMR/SRP/LCE		96.7%	3.3%	
		SPM/SPMV/MCE	13.6%	86.4%		
		STPM/STAM/MATRIC.		100.0%		
		Certificate	10.5%	84.2%	5.3%	
		Higher Education	4.2%	95.8%		
		Total	3.1%	93.8%	2.1%	1.0%

The study further revealed that in the urban area, the education level of respondents does not have any significant impact upon the readiness of an elderly respondent to move out (refer to Table 6.18). As being mentioned previously, the elderly living in the urban area are more open to the option of having to move in the future. In contrary, for the elderly living in rural area, education level does give an impact upon their willingness to move in the future. In urban area, with a percentage of 13.6% and 10.6% and 4.2%, it can be noted that only elderly who had graduated from high school are the ones having more intention to move out of their current house (refer to Table 6.18). It is interesting to note that the respondents that have a similar education background but of a different area (urban-rural), does display a varying response when it comes to planning to move out in the future. Additionally, a study conducted by Costa-Font et al. (2009), found out that the preferences to age in place is significantly stronger in elderly who is less formally educated and less affluent.

Table 6.19: Relationship between the variable “considering to move” with working category and household income

AREA	Variable	Descriptions	CONSIDERING TO MOVE IN THE FUTURE			
			Yes	No	Undecided	Have not thought about it
URBAN	Working Category	Professional/Technical		90.9%		9.1%
		Manager /Admin	7.4%	85.2%	3.7%	3.7%
		Office Admin/Clerical	33.3%	44.4%	11.1%	11.1%
		Sales And Commerce	26.5%	61.8%	11.8%	
		Workers /Skilled Labor	22.2%	66.7%	11.1%	
		Semi-Skilled Labour	50.0%	50.0%		
		Housewife	10.5%	89.5%		
		Retired	12.5%	83.3%	1.4%	2.8%
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	Working Category	Professional/Technical		100.0%		
		Manager /Admin	33.3%	66.7%		
		Office Admin/Clerical	20.0%	80.0%		
		Sales And Commerce	4.0%	92.0%	4.0%	
		Workers /Skilled Labor		100.0%		
		Semi-Skilled Labour		85.7%		14.3%
		Housewife		100.0%		
		Retired		100.0%		
		Total	3.1%	93.8%	2.1%	1.0%
URBAN	Household net income	Below RM 3000	21.0%	67.7%	8.1%	3.2%
		RM 3000-RM 4999	11.1%	77.8%	8.3%	2.8%
		RM 5000-RM 6999	15.0%	80.0%	5.0%	
		RM 7000-RM 9999	19.4%	74.2%	6.5%	
		RM10000 & above	6.1%	87.9%		6.1%
		Total	15.4%	75.8%	6.0%	2.7%
RURAL	Household net income	Below RM 3000	4.3%	87.5%	6.6%	1.6%
		RM 3000-RM 4999	1.3%	97.4%		1.3%
		RM 5000-RM 6999	2.2%	97.8%		
		RM 7000-RM 9999		100.0%		
		RM10000 & above		100.0%		
		Total	3.1%	93.8%	2.1%	1.0%

On the other hand, by referring to Table 6.19, we were able to deduce the relationship between variable considering to move with the economic condition of the elderly. Based on the household net income, it can be deduced that elderly having lower household income shows a greater tendency and intention to move compared to the elderly having a higher household net income. This is primarily true in the urban areas. Elderly having a household income of below RM 3000 shows the highest percentage of considering moving in the future (with a percentage of 21.1%).

Elderly in a rural area having a high household net income of above RM 10000 shows no indication of wanting to move (refer to Table 6.19). The rural elderly having a household net income of below RM 3000 indicated that only around 4.3% want to move out. Although in a smaller percentage, this certainly indicates that elderly having lesser household net income shows a higher motive of moving out of their current house. Too crowded, lesser privacy, unsuitable design as well as having a bad lift system are among the reason as to why this elderly wanted to move out. All in all, findings suggest that for the urban elderly, the lower income group of respondents have a relatively higher aspiration to move out but had been constrained by low income and lack of education. Whereas, for the rural elderly, the lesser visible pattern can be observed.

Table 6.20: Relationship between the variable “considering to move” with living arrangement

AREA	Variable	Descriptions	CONSIDERING TO MOVE IN THE FUTURE			
			Yes	No	Undecided	Have not thought about it
URBAN	Living arrangement	Alone		100.0%		
		Spouse only	13.8%	82.8%		3.4%
		Children only	23.1%	76.9%		
		Others	12.5%	68.8%	18.8%	
		Spouse and Children	16.5%	72.5%	8.8%	2.2%
		Spouse and Others		75.0%		25.0%
		Spouse + Children + Others	21.7%	73.9%		4.3%
		Children and Others	8.3%	91.7%		
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	Living arrangement	Alone		100.0%		
		Spouse only		83.3%	16.7%	
		Children only		100.0%		
		Others		100.0%		
		Spouse and Children	5.5%	92.7%		1.8%
		Spouse and Others		100.0%		
		Spouse + Children + Others	3.4%	92.0%	3.4%	1.1%
		Children And Others		100.0%		
		Total	3.1%	93.8%	2.1%	1.0%

Based on Table 6.20, it can be deduced that elderly who lives alone in both urban and rural areas, are the ones that have the highest percentage of not considering to move out. With a percentage of 100% both the elderly in the urban and rural area shows a strong denial of having plans to move out. However, no other significant relationship exists for this comparison.

Table 6.21: Relationship between the “considering to move” with housing variable

AREA	Variable	Descriptions	CONSIDERING TO MOVE IN THE FUTURE			
			Yes	No	Undecided	Have not thought about it
URBAN	Type of current house	S/S terrace house	7.7%	80.8%	11.5%	
		D/S terrace house	10.1%	87.0%	1.4%	1.4%
		S/S bungalow		85.7%		14.3%
		D/S bungalow	8.3%	91.7%		
		flat (low-cost)	36.7%	53.3%	10.0%	
		Apartment	9.1%	54.5%	27.3%	9.1%
		Condominium	30.0%	60.0%	10.0%	
		D/S semi-D	28.6%	42.9%		28.6%
		traditional house	25.0%	75.0%		
		Townhouse		100.0%		
		Others (quarters)	100.0%			
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	Type of current house	D/S terrace		100.0%		
		S/S bungalow		100.0%		
		D/S bungalow		100.0%		
		flat (low-cost)	100.0%			
		traditional house	1.5%	96.2%	.8%	1.5%
		Total	3.1%	93.8%	2.1%	1.0%
URBAN	Who own current house	Myself (Sole Owner)	7.9%	78.9%	10.5%	2.6%
		Co own	14.8%	81.5%		3.7%
		Spouse/Partner	4.8%	90.5%	4.8%	
		Daughter/Son	18.2%	81.8%		
		Relatives	50.0%	50.0%		
		Renting	41.7%	45.8%	8.3%	4.2%
		Quarters	50.0%	50.0%		
		Total	15.6%	76.0%	5.7%	2.6%
RURAL	Who own current house	Myself (Sole Owner)	1.4%	97.3%	1.4%	
		Co-own		92.9%	7.1%	
		Spouse/Partner	1.9%	94.4%		3.7%
		Daughter/Son		100.0%		
		Relatives	18.2%	81.8%		
		Renting		100.0%		
		Quarters	100.0%			
		Total	3.1%	93.8%	2.1%	1.0%

Table 6.21 shows the relationship between the type of house and consideration of moving out. It is indicated that elderly living in quarters as well as flat (low-cost) are the ones having higher percentage of considering to move out (quarters with 100% and flat with 53.3%). Similarly, the elderly living in rural area and lives in low costs flats are the ones displaying highest interest in moving out, with a total of 100%.

6.4.2 Reason to Move

Respondents who consider in moving out of their current house were further asked on their tenure plan and the reason why they plan to move. For the urban respondents, a total of 61.5% of them plan on buying a new home, whereas, for the rural elderly, a total of 85.7% of them plan on buying a new home (as shown in Figure 6.6). Unsurprisingly, the majority of them are planning on buying a new home.

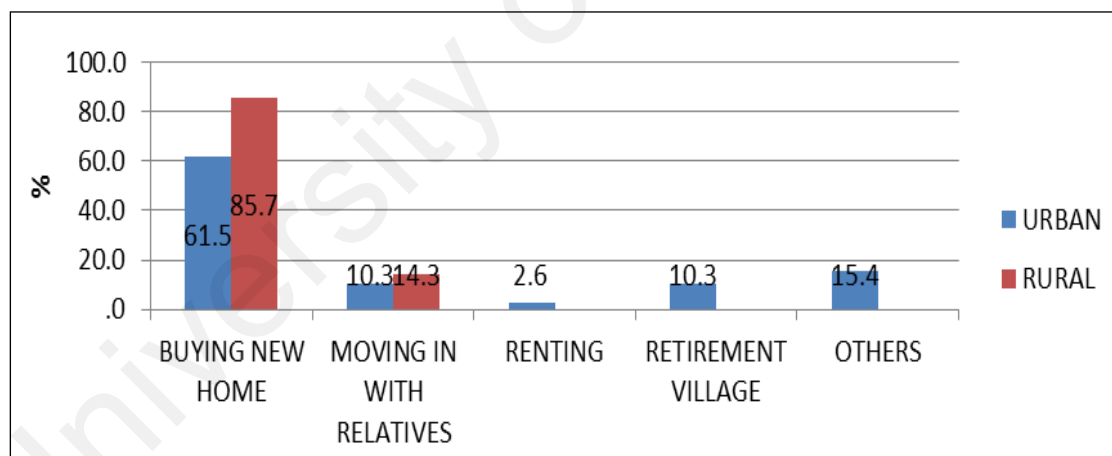


Figure 6.16: Respondents' reason to move

Around 10% of the urban elderly respondents stated that they are moving with their relatives whereas, around 14% of the rural elderly stated that they are moving in with their relatives. This figure though shows a noticeable figure, however, is quite insignificantly low. In relation to this, findings from a study conducted by Hansen and Gottschalk (2006) stated that their data findings cannot link the existence of a

significant relationship between strong desire to move closer to children and the elderly housing mobility (Hansen and Gottschalk, 2006).

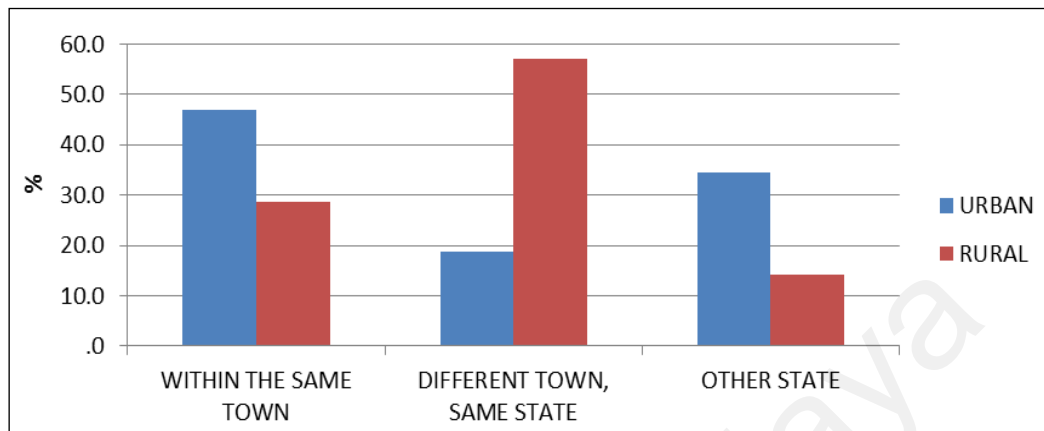


Figure 6.17: Location of house to buy in future

Figure 6.17 shows the location of the house that respondents plan to buy (if they consider on moving out of the current house). Based on the figure, majority of the survey respondents in an urban area (46.9%), plans on buying a house that is located within the same town he/she is currently living. This statement is supported by the literature that elderly that move tends to move to a house which is located within the same region of his/her previous house (Banks et al., 2012).

In contrary to this, the majority of the rural respondents (57.1%) respond that they want to move to a different town which is still located within the same state he/she currently live. A related study on elderly which looks into the location and migration of elderly in Korea shows that the if the elderly living in the urban area wanted to move upon their retirement, they often opt to move to a less dense area. A majority of urban elderly prefers to age in place and does not prefer to move out (Kim et al., 2014). On a similar study, Robinson and Moen (2000) in their study stated that individual preferences for location in later life are highly heterogeneous and different depending on the individual, some people prefers to age in place, while others choose to move.

Table 6.22: Relationship between the reason to move with the age group, gender and marital status of respondents

AREA	Variable	Descriptions	REASON TO MOVE				
			Buying New Home	Moving In With Relatives	Renting	Retirement Village	Others
URBAN	Age group	50 - 59 years old	66.7%	9.5%		14.3%	9.5%
		60 - 69 years old	58.8%	5.9%	5.9%	5.9%	23.5%
		70 years and above		100.0%			
		Total	61.5%	10.3%	2.6%	10.3%	15.4%
RURAL	Age group	50-59	83.3%	16.7%			
		70 years and above		100.0%			
		Total	85.7%	14.3%			
URBAN	Gender	Male	70.4%	3.7%		11.1%	14.8%
		Female	41.7%	25.0%	8.3%	8.3%	16.7%
		Total	61.5%	10.3%	2.6%	10.3%	15.4%
RURAL	Gender	Male	100.0%				
		Female	50.0%	50.0%			
		Total	85.7%	14.3%			
URBAN	Marital Status	Single	100.0%				
		Married	64.7%	5.9%	2.9%	11.8%	14.7%
		Widowed		66.7%			33.3%
		Total	61.5%	10.3%	2.6%	10.3%	15.4%
RURAL	Marital Status	Married	85.7%	14.3%			
		Total	85.7%	14.3%			

The crosstab result shown in Table 6.22 indicates that majority respondents plan to move out because they want to buy a new house. In an urban area, the percentage of the age group to move out because want to buy a new home is 66.7% (50 - 59 years old), and 58.5% (60 - 69 years old). In addition, for the urban elderly having the age group of ‘70 years and above’ shows no indication of wanting to buy a new home. A significant majority of the urban elderly having the age group of ‘70 years old and above’ shows the preference of move in with relatives if they were to consider moving out of their current house. This proves that elderly in Malaysia, still hold on to strong family values and ties (Yusnani, 2006). Similarly, in the rural area, the elderly of the age group 70 years and above also show the same pattern. This particular age group only have in

mind the option of moving in with relatives if they were to move out of their current house. This further proves that Malaysian still hold on the customary aspect of elderly living together with their family. Additionally, looking into the gender aspect of the respondents, it can be noted that the male is keener on the option of buying a new home.

6.4.3 Plan for Current House

Respondents were further asked on their plan for the current house. The answer includes “sell the house”, “rent out”, “give to children” and others. Figure 6.8 indicates that, the main option preferred by the rural elderly are giving the house to children (60%), followed by the option of renting the house out (40%). This is in contradictory with the urban respondents. A balanced amount of urban respondents opts to either sell the house or give the house to their children. The rest of them are divided between renting out the house and another choice.

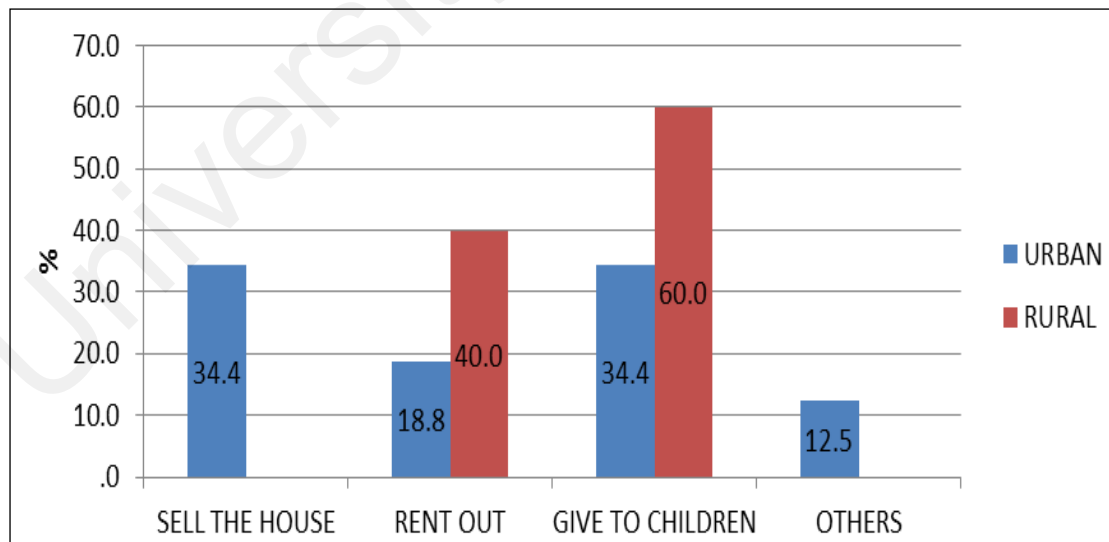


Figure 6.18: Plan for current house

6.4.4 Type of House to Buy in Future

Figure 6.9 represents the aspiration of the respondents on the type of house that they plan to buy. The question was formulated in a very straight forward manner i.e. “What type of house are you planning on buying, if you are considering on moving out of your current house?”. A very contrasting result between the urban and rural elderly can be seen based on Figure 6.9. For the urban respondents, among the most preferred house that the elderly plans to buy are the single-storey terrace house (32.4%), double storey terrace house (20.6%) as well as the traditional house (20.6%).

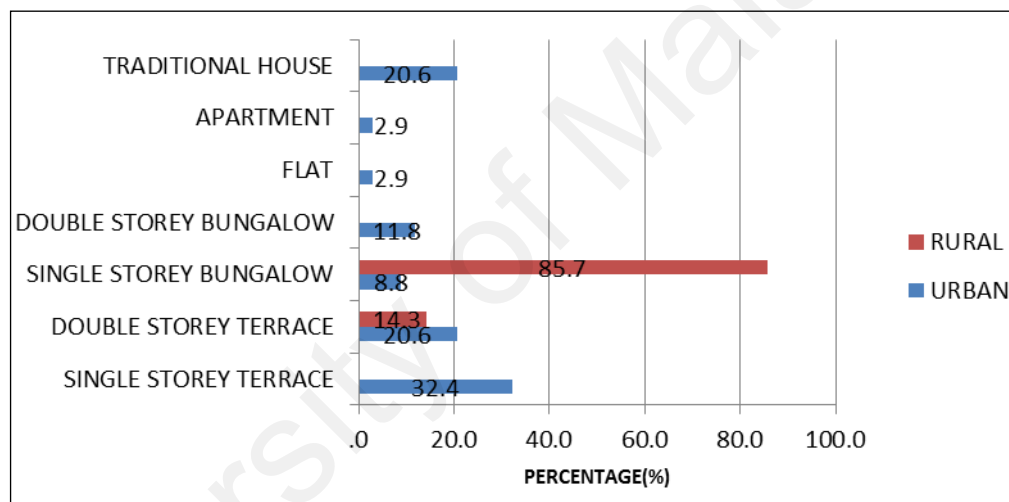


Figure 6.19: Type of house plan to buy in the future

Additionally, the percentage of respondents who prefers to buy double storey bungalow (11.8%) and single storey bungalow (8.8%), is still a significant amount. An equally distributed percentage of 2.9% respondents prefer to buy either an apartment unit or flat unit. In contrary, out of all the housing choices available for them to choose to buy in Malaysia, the rural respondents only preferred two type of house; single storey bungalow and double storey bungalow. With a total of 85.7%, the single storey bungalow seems to be the main and only choice preferred by the rural elderly to acquire.

Table 6.23: Relationship between the variable “type of house plans to buy in future” with the age group, gender and marital status of respondents

AREA		Descriptions	TYPE OF HOUSE PLAN TO BUY IN THE FUTURE						
			SSTH	DSTH	SSB	DSB	FLAT	APT	TRAD. H
URBAN	Age group	50 - 59 years old	35.0%	25.0%	10.0%	15.0%	5.0%		10.0%
		60 - 69 years old	28.6%	14.3%	7.1%	7.1%		7.1%	35.7%
		Total	32.4%	20.6%	8.8%	11.8%	2.9%	2.9%	20.6%
RURA	Age group	50-59 years old		16.7%	83.3%				
		Total		14.3%	85.7%				
URBAN	Gender	Male	20.8%	20.8%	12.5%	16.7%	4.2%		25.0%
		Female	60.0%	20.0%				10.0%	10.0%
		Total	32.4%	20.6%	8.8%	11.8%	2.9%	2.9%	20.6%
RURAL	Gender	Male		20.0%	80.0%				
		Female			100.0%				
		Total		14.3%	85.7%				
URBAN	Marital Status	Single		100.0%					
		Married	35.5%	16.1%	9.7%	12.9%	3.2%	3.2%	19.4%
		Widowed							100.0%
		Total	32.4%	20.6%	8.8%	11.8%	2.9%	2.9%	20.6%
RURA	Marital Status	Married		14.3%	85.7%				
		Total		14.3%	85.7%				

Table 6.23 displays the cross tabulation analysis done, between the variable of age group, gender and marital status with the “type of house that the respondents plan to buy in the future”. Looking into the variable of age group, we can see an obvious pattern where the urban elderly of the age 50-59 years old and 60-69 years old, are more open to the variety type of house available in the Malaysian market. For the urban elderly of the age group of 50-59 years old, 35.0% plans to buy a single-storey terrace house, 25.0% plans to buy double storey terrace house, 10.0% plans on buying single storey bungalow, 15.0% double storey bungalow, 5.0% flat as well as 10.0% wanting to buy/build their own traditional house. Elderly in rural area, on the other hand, prefers to buy single storey bungalow.

Table 6.24: Relationship between the variable “type of house plans to buy in future” with the working category and household net income of respondents

AREA	Variable	Descriptions	TYPE OF HOUSE PLAN TO BUY IN THE FUTURE						
			SSTH	DSTH	SSB	DSB	FLAT	APT	TRAD . H
URBAN	Working category	Manager/Admin	25.0%	25.0%		50.0%			
		Office admin/Clerical	25.0%	25.0%	50.0%				
		Sales & Commerce	30.8%	15.4%		15.4%		7.7%	30.8%
		Worker/Skilled labor	100.0%						
		Semi-Skilled labour	50.0%				50.0%		
		Housewife							100.0%
		Retired	28.6%	28.6%	14.3%				28.6%
		Others	50.0%	50.0%					
		Total	32.4%	20.6%	8.8%	11.8%	2.9%	2.9%	20.6%
RURAL	Working category	Manager/Admin			100.0%				
		Office admin/Clerical			100.0%				
		Sales & Commerce		25.0%	75.0%				
		Total		14.3%	85.7%				
URBAN	Household Monthly Net Income	Below RM3000	28.6%	21.4%	7.1%		7.1%	7.1%	28.6%
		RM3000-RM4999	40.0%	20.0%	20.0%	20.0%			
		RM5000-RM6999	25.0%	50.0%					25.0%
		RM7000-RM9999	42.9%	14.3%	14.3%	14.3%			14.3%
		RM10000 & above	33.3%			66.7%			
		Total	33.3%	21.2%	9.1%	12.1%	3.0%	3.0%	18.2%
RURAL	Household Monthly Net Income	Below RM 3000			100.0%				
		RM 3000-RM 4999			100.0%				
		RM 5000-RM 6999		100.0%					
		RM 7000-RM 9999			100.0%				
		Total		14.3%	85.7%				

Table 6.24 shows the result on the cross tabulation analysis done between the working category of respondents and the respondent’s household net income. For the rural area it can be deduced that elderly working as manager and admin highly opt to buy or own single storey bungalow in the future (100%), Whereas, for those elderly working in the sales and commerce sector plans to buy either the double storey terrace house (25.0%)

or the single-storey terrace house (75.0%). In a different setting, the urban elderly working as a manager is seen to plan on buying double storey bungalow (50.0%) or terrace house (25.0% single-storey terrace house and 25.0% double storey terrace house).

The relationship of type of house to buy in the future with the household net income of the respondents shows that rural area despite having low-income category still have the plan to buy and own either bungalow or terrace house. For the elderly living in urban area, those having income below that RM 3000 prefers to buy terrace house (28.6% single-storey terrace house and 21.4% double storey terrace house) or acquire traditional house (28.6%). For the urban elderly having a household net income of RM 3000-RM4999 and RM 7000-RM 9999, they prefer to buy single-storey terrace house.

Besides that, elderly having a household net income of RM 5000-RM6999 displays a different trend where, most of them prefer to buy only double-storey terrace house in the future (6.1%). Lastly, the group of elderly having net household income of above RM10000 prefers to buy either the single-storey terrace house (33.3%) or double storey bungalow (66.7%).

In a nutshell, we can conclude that despite having high or low household net income, it can be deduced that different elderly will have a different opinion on the suitable future house that they plan to buy. Certain elderly may prefer to buy house that are a bit smaller than their current house for the sake of easy mobility around house, whereas another elderly may prefer to reside in a larger house for the sake of additional comfortability level (Weeks and LeBlanc, 2010).

Table 6.25: Relationship between the variable “type of house plan to buy in future” with the type of current house

AREA	Variable	Descriptions	TYPE OF HOUSE PLAN TO BUY IN THE FUTURE						
			SSTH	DSTH	SSB	DSB	FLAT	APT	TRAD. H
URBAN	Type of current house	S/S Terrace		50.0%					50.0%
		D/S Terrace	25.0%	37.5%		25.0%			12.5%
		D/S Bungalow	50.0%			50.0%			
		Flat (Low-Cost)	37.5%	12.5%			12.5%	12.5%	25.0%
		Apartment	20.0%	20.0%	40.0%				20.0%
		Condominium	25.0%	25.0%		25.0%			25.0%
		D/S Semi-D	66.7%		33.3%				
		Traditional House	100.0%						
		Others							100.0%
	Total		32.4%	20.6%	8.8%	11.8%	2.9%	2.9%	20.6%
RURAL	Type of current house	D/S Terrace			100.0%				
		Flat (Low-Cost)		50.0%	50.0%				
		Traditional House			100.0%				
		Others			100.0%				
	Total			14.3%	85.7%				

A research on elderly housing by Painter et al. (2009) in his research stated that elderly who buys another house to stay in their golden age, have the tendency to buy a smaller property. The first reason explaining the act of downsizing their property may be due to the fact that, they are no longer physically fit and mobile. Thus, they need a smaller area as they may increase their reachable area and increase their mobility in the house. Another related study was done by Clark and Deurloo (2006) explains that elderly make the decision to downsize their current house due to the effect of the empty nest (children move out of the house).

Looking into the result in this study, for the urban elderly, a mix of opinion in pattern exists. Some elderly prefers to downsize and the rest prefers to upgrade their house. Referring to Table 6.25, we are able to denote that a high percentage urban elderly who currently resides at flat houses plans to buy single storey terrace house in the future

(37.5%). Similarly, a total of another 37.5% of the urban elderly who currently live in double storey terrace house have the plan to buy double storey terrace house. With the elderly having mix opinion, the only aspect that stands out is that both elderly living in urban and rural area is their preference to buy a single storey type of property. The urban elderly prefers the single-storey terrace house (SSTH), whereas the rural elderly prefers to buy single storey bungalow (SSB). This re-confirms that elderly have their negative opinion when it comes to having staircases.

6.4.5 Location of House to Buy in Future

Figure 6.10 shows the location of the house that respondents plan to buy (if they consider on moving out of the current house). Based on this, majority of the survey respondents in an urban area (46.9%), plans on buying a house that is located within the same town he/she is currently living. This statement is supported by the literature that elderly that move tends to move to a house which is located within the same region of his/her previous house (Banks et al., 2012). In contrary to this, the majority of the rural respondents (57.1%) respond that they want to move to a different town which is still located within the same state he/she currently live. Kim (2011) in his study found out that elderly tend to move from less urbanised neighbourhoods to slightly more urbanised neighbourhoods.

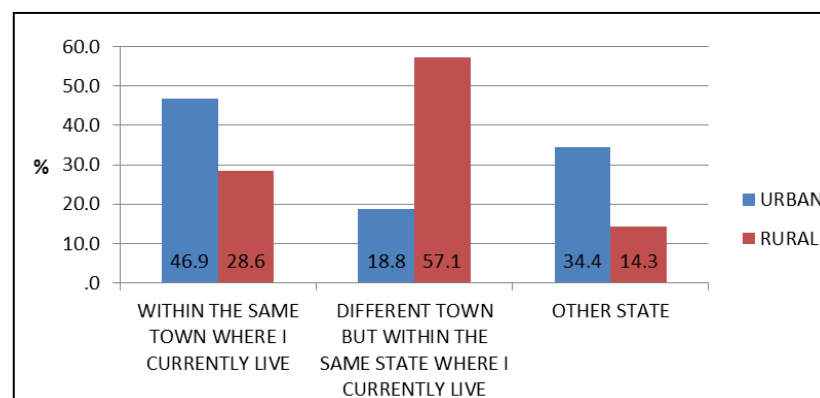


Figure 6.20: Location of house plan to buy in future

In relation to their future housing aspiration, the respondents were further asked whether they need their house to be located nearby to good public transportation or not, need to be located nearby to their children or not as well as whether they need to be located the nearby friend or not. The result is as shown in Table 6.26, Table 6.27, Table 6.28 and Table 6.29.

Table 6.26: Factors affecting the elderly need to live close to public transportation (a)

	NEED TO LIVE CLOSE TO GOOD PUBLIC TRANSPORTATION SYSTEM							Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	Age group	50 - 59 years old	3.2%	4.2%	22.1%	50.5%	20.0%	3.80
		60 - 69 years old	1.5%	9.0%	29.9%	29.9%	29.9%	3.78
		70 years & above		23.3%	33.3%	36.7%	6.7%	3.27
	Total		2.1%	8.9%	26.6%	41.1%	21.4%	3.71
RURAL	Age group	50 - 59 years old		12.2%	38.8%	41.8%	7.1%	3.44
		60 - 69 years old		11.5%	67.3%	21.2%		3.10
		70 years & above	2.4%	11.9%	57.1%	28.6%		3.12
	Total		.5%	12.0%	50.5%	33.3%	3.6%	3.28
URBAN	Gender	Male	2.7%	7.1%	27.7%	42.0%	20.5%	3.71
		Female	1.3%	11.3%	25.0%	40.0%	22.5%	3.71
	Total		2.1%	8.9%	26.6%	41.1%	21.4%	
RURAL	Gender	Male	1.2%	14.1%	47.1%	32.9%	4.7%	3.26
		Female		10.3%	53.3%	33.6%	2.8%	3.29
	Total		.5%	12.0%	50.5%	33.3%	3.6%	3.28
URBAN	Marital status	Single/Never married	2.0%	8.5%	24.8%	44.4%	20.3%	3.13
		Married	12.5%		62.5%	12.5%	12.5%	3.73
		Divorce				100.0%		4.00
		Widowed		14.3%	28.6%	25.0%	32.1%	3.73
	Total		2.1%	8.9%	26.6%	41.1%	21.4%	3.71
RURAL	Marital status	Single/Never married			60.0%	40.0%		3.40
		Married		10.2%	47.6%	37.4%	4.8%	3.37
		Divorce		25.0%	50.0%	25.0%		3.00
		Widowed	2.8%	19.4%	61.1%	16.7%		2.92
	Total		.5%	12.0%	50.5%	33.3%	3.6%	3.28

Public transit was used more frequently by seniors living in the largest census metropolitan areas (Turcotte, 2012). By all means, Table 6.26 is also sufficient to show that for this study, the elderly living in the urban area are also more frequently using the public transportation as compared to the rural elderly.

For both urban and rural area, the desire to live close to good public transportation gradually decrease as the elderly age. Looking into the urban elderly, for the age of 50-59 years old, a total of 50.5% of them agree and a total of 20.0% of them strongly agree. Urban respondents of the age 60-69 years old indicated that 29.9% of them agree that they need to live close to good public transportation and another 29.9% of them strongly agree. Lastly, the when asked on their opinion regarding their need to live close to good public transpiration, the urban elderly of the age 70 years and above showed the least interest with only 6.7% of them strongly agrees. Therefore, the pattern where elderly uses less public transportation as they age does exist among the urban elderly.

On the other hand, the rural elderly showed a lesser interest in leaving nearby to good public transportation as compared to their urban counterparts. For the elderly of the age group 50-59 years old, 41.8% of them agree and 7.1% of them strongly agree when asked whether they need to live nearby good public transportation. The rural elderly of the age group 60-69 years old have around 21.2% that agree and the elderly of the age group 70 years old and above have around 28.6% of them that agrees on the statement. Dobbs et al. (2008) in the research on issues of mobility of rural elderly stated that rural elderly have less access to public transportation compared to the urban elderly. Therefore, the rural elderly are used to living in the area having inefficient public transportation. This may help to explain why the urban elderly have stronger need in terms of living nearby to good public transportation

Rosenbloom (2009) in her research on the “Transportation Needs in an Aging-Friendly Community” stated that it is evident that elderly are even less likely to use public transportation upon retirement, as compared to when they are still working and are in the labour force. Therefore, this explains out why the desire to live close to good public transportation gradually decreases as the elderly age, for elderly living both in the urban and rural area. In the densely populated neighbourhoods and areas which are highly urbanised, male elderly is seen to prefer to drive instead of using the public transportation system (Turcotte, 2012).

Based on Table 6.27, we are able to see the pattern where elderly living alone has a higher say in strongly agreeing that they want to live close to good public transportation. Elderly living alone, both in urban and rural area displays a higher tendency of needing to live closer to good public transportation system area.

A research had shown that elderly having family or friends who could provide transportation for them had higher number of visits to hospitals compared to those who did not have (Arcury et al., 2005). While this may or may not be significant, but this may help to understand why elderly living alone needs to live closer to good public transportation area. An elderly that co-reside with their family or friends tend to have other option of the transportation system. For example, an elderly who are unable to drive and lives together with his children usually went for shopping groceries together with his children (carpool).

On the other hand, an elderly who are unable to drive and lives alone, usually have no option but to use the public transportation. Thus, the elderly living alone may have the higher tendency of wanting his/her future home to be located nearby to the good public transportation system. This is shown in Table 6.27.

Table 6.27: Factors affecting elderly need to live close to public transportation (b)

		NEED TO LIVE CLOSE TO GOOD PUBLIC TRANSPORTATION SYSTEM						Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	Living Arrangement	Alone			25.0%	25.0%	50.0%	4.25
		Spouse only		10.3%	37.9%	34.5%	17.2%	3.59
		Children only		7.7%	30.8%	38.5%	23.1%	3.77
		Others	12.5%	12.5%	37.5%	25.0%	12.5%	3.12
		Spouse & children		6.6%	23.1%	45.1%	25.3%	3.89
		Spouse & others		50.0%	50.0%			2.50
		Spouse + children + others	8.7%	8.7%	8.7%	60.9%	13.0%	3.61
		Children & others		8.3%	33.3%	33.3%	25.0%	3.75
	Total		2.1%	8.9%	26.6%	41.1%	21.4%	3.71
RURAL	Living Arrangement	Alone		7.3%	45.5%	40.0%	7.3%	3.33
		Spouse only		16.7%	66.7%	16.7%		3.00
		Children only			80.0%	20.0%		3.20
		Others				100.0%		4.00
		Spouse & children			66.7%	33.3%		3.47
		Spouse & others		16.7%	33.3%	50.0%		3.33
		Spouse + children + others		9.1%	52.3%	35.2%	3.4%	3.33
		Children & others	3.7%	33.3%	51.9%	11.1%		2.70
Total		.5%	12.0%	50.5%	33.3%	3.6%	3.28	

On the other hand, Table 6.28 explains the factors affecting the elderly need to live close to children. Socio-demographic factors such as the age, gender and ethnicity are strong predictors for choices in terms of living arrangement (Yeh, 2003). Other predictors include the income status as well as changes and status in terms of marital status (Pastalan, 2013).

Additionally, it is found out that a majority of the elderly people prefers to spend their time with their children, grandchildren and friends rather than going elsewhere (Selvaratnam et al., 2007). However, a few contrasting findings is found between the

urban and rural elderly when they were asked on their need in terms of living nearby their children.

Table 6.28: Factors affecting the elderly need to live close to children (a)

	NEED TO LIVE CLOSE TO CHILDREN							Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	Age group	50 - 59 years old	1.1%	4.6%	26.4%	49.4%	18.4%	3.79
		60 - 69 years old	3.0%	1.5%	29.9%	41.8%	23.9%	3.82
		70 years & above		3.3%	26.7%	33.3%	36.7%	4.03
	Total		1.6%	3.3%	27.7%	44.0%	23.4%	3.84
RURAL	Age group	50 - 59 years old		2.1%	21.6%	55.7%	20.6%	3.95
		60 - 69 years old		3.8%	26.9%	59.6%	9.6%	3.75
		70 years & above	2.4%	4.9%	43.9%	39.0%	9.8%	3.49
	Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79
URBAN	Gender	Male	2.8%	2.8%	29.2%	42.5%	22.6%	3.79
		Female		3.8%	25.6%	46.2%	24.4%	3.91
	Total		1.6%	3.3%	27.7%	44.0%	23.4%	3.84
RURAL	Gender	Male		4.8%	45.8%	44.6%	4.8%	3.49
		Female	.9%	1.9%	14.0%	59.8%	23.4%	4.03
	Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79
URBAN	Ethnic	Malay	2.6%	2.6%	26.7%	44.0%	24.1%	3.84
		Chinese		4.3%	27.7%	46.8%	21.3%	3.85
		Indian		5.3%	26.3%	42.1%	26.3%	3.89
		Others (bumi.)			100.0%			3.00
	Total		1.6%	3.3%	27.7%	44.0%	23.4%	3.84
RURAL	Ethnic	Malay	.5%	3.3%	27.7%	53.8%	14.7%	3.79
		Chinese			33.3%	33.3%	33.3%	4.00
	Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79
URBAN	Marital status	Married	2.0%	3.9%	30.1%	43.1%	20.9%	3.77
		Divorce			50.0%	50.0%		3.50
		Widowed			14.3%	46.4%	39.3%	4.25
		Others				100.0%		4.00
	Total		1.6%	3.3%	27.7%	44.0%	23.4%	3.84
RURAL	Marital status	Single/Never married		25.0%		75.0%		3.50
		Married	.7%	2.1%	32.2%	51.4%	13.7%	3.75
		Divorce			25.0%	50.0%	25.0%	4.00
		Widowed		5.6%	13.9%	58.3%	22.2%	3.97
	Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79

Looking into the urban elderly, they are seen to have the pattern of needing to live closer to their children as they grow older and older. A total of 18.4% of the urban elderly having the age group of 50-59 years old stated that they strongly agree in needing their children to live close to them. For the elderly of the age 60-69 years old, 23.9% strongly agree and similarly for the elderly of the age 70 years and above, 36.7% strongly agree. In short, the urban elderly have a higher need to live closer to their children as they grow old.

Contrastingly, the rural elderly displays a different pattern as they grow older. Rural elderly is seen to have lower needs in terms of their children living closer to them as they grow older. Rural elderly of the age group 50-59 years old have the percentage of 55.7% agree and 20.6% strongly agree, whereas for rural elderly of the age 60-69 years old have the percentage of 59.6% agree and 9.6% strongly agree. Lastly, the rural elderly of the age of 70 years and above displays a lower percentage level with only 39.0% of them agrees and 9.8% of them strongly agree. This shows that the urban and rural area does show different needs.

By referring to Table 6.29, there is no significant pattern in terms of the need for the elderly to live close to their children and their household income. However for the rural elderly, a clear pattern of higher household income leads to lesser need in children living close to the elderly shows.

In reference to Table 6.29, the urban elderly having household income of below RM 3000 have a percentage of 34.4% strongly agree and 45.9% agree. For the household having income of RM3000-RM4999, 37.1% strongly agree, whereas for the household having income of RM 5000-RM 6999, 33.3% strongly agree. Urban elderly having income of RM 7000-RM 9999 indicated a total of 25.0% strongly agree. Lastly, for the

income of RM 10000 and above, 18.8% strongly agree. This shows a pattern of lesser need for urban elderly to live close to children as their income rises. A vice versa pattern exists for the rural elderly.

Table 6.29: Factors affecting the elderly need to live close to children (b)

			NEED TO LIVE CLOSE TO CHILDREN					Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	Household Monthly Net Income	Below RM 3000	3.3%		34.4%	45.9%	16.4%	3.72
		RM 3000-RM 4999		5.7%	14.3%	42.9%	37.1%	4.11
		RM 5000-RM 6999		5.6%	16.7%	44.4%	33.3%	4.06
		RM 7000-RM 9999		7.1%	21.4%	46.4%	25.0%	3.89
		RM10000 & above		3.1%	31.3%	46.9%	18.8%	3.81
	Total		1.1%	3.4%	25.9%	45.4%	24.1%	3.88
RURAL	Household Monthly Net Income	Below RM 3000	1.7%	6.8%	33.9%	44.1%	13.6%	3.61
		RM 3000-RM 4999		2.6%	28.6%	54.5%	14.3%	3.81
		RM 5000-RM 6999			16.7%	62.5%	20.8%	4.04
		RM 7000-RM 9999			16.0%	64.0%	20.0%	4.04
		RM10000 & above			20.0%	50.0%	30.0%	3.40
	Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79
URBAN	Living Arrangement	Alone			25.0%	50.0%	25.0%	4.00
		Spouse only	6.9%		48.3%	34.5%	10.3%	3.41
		Children only			23.1%	46.2%	30.8%	4.08
		Others			37.5%	37.5%	25.0%	3.88
		Spouse & children	1.1%	4.4%	29.7%	41.8%	23.1%	3.81
		Spouse & others		25.0%	50.0%	25.0%		3.00
		Spouse + children + others		4.3%		65.2%	30.4%	4.22
		Children & others			8.3%	50.0%	41.7%	4.33
	Total		1.6%	3.3%	27.7%	44.0%	23.4%	3.84
RURAL	Living Arrangement	Alone		33.3%		66.7%		3.33
		Spouse only	20.0%	40.0%	40.0%			2.20
		Children only		20.0%		40.0%	40.0%	4.00
		Others				100.0%		4.00
		Spouse & children			21.8%	63.6%	14.5%	3.93
		Spouse & others			33.3%	66.7%		3.67
		Spouse + children + others		2.3%	34.1%	50.0%	13.6%	3.75
		Children & others			25.9%	48.1%	25.9%	4.00
Total		.5%	3.2%	27.9%	53.2%	15.3%	3.79	

From Table 6.30, we are able to deduce that elderly living in both urban and rural area displays increasing need to live close to relatives and friends, as they grow older and older. Urban elderly of the age 50 – 59 years old have a percentage of 10.5% strongly agree, whereas the elderly of the age 60 – 69 years old recorded a percentage of 17.5%. An increase is further seen, as the elderly of the age 70 years and above displays a percentage total of 23.3% strongly agree to the fact that they need to live close to their relatives and friends.

As displayed in Table 6.30, rural elderly shows a similar pattern whereby elderly of the age 50 -59 years old display a percentage of 6.3% strongly agree and 58.2% agree. This is followed by rural elderly of the age 60-69 years old with an increasing percentage of 9.6% strongly agree and 63.5% agree.

Lastly, the rural elderly which marked the highest percentage with 11.9% strongly agree and 67.6% agree. Both the urban and rural female elderly displays a higher tendency of wanting to leave nearby with their relatives and friend. This is shown as the percentage of urban female elderly is 15.0% strongly agree and 8.9% strongly agree for urban male elderly.

Meanwhile , rural female elderly signify strongly agree with 22.4% and only 2.4% for rural male elderly. Additionally by referring to Table 6.30, in terms of marital status for an urban area, it is seen that the elderly who is currently having the marital status of “divorce” shows the lowest percentage. On the other hand, for the rural area, it is recorded that the elderly currently having the marital status of “single/never married” displays the lowest percentage (refer to Table 6.30).

Table 6.30: Factors affecting the elderly need to live close to relatives and friend (a)

	NEED TO LIVE CLOSE TO RELATIVES AND FRIEND							Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	AGE GROUP	50 - 59 years old	2.1%	7.4%	48.4%	31.6%	10.5%	3.41
		60 - 69 years old	3.0%	3.0%	35.8%	40.7%	17.5%	3.57
		70 years and above			10.0%	66.7%	23.3%	4.13
	Total		2.1%	4.7%	38.0%	43.8%	11.5%	3.58
RURAL	AGE GROUP	50 - 59 years old	1.0%	2.0%	32.4%	58.2%	6.3%	3.87
		60 - 69 years old		3.8%	23.1%	63.5%	9.6%	3.79
		70 years and above			20.5%	67.6%	11.9%	3.71
	Total		.5%	2.1%	26.6%	57.3%	13.5%	3.81
URBAN	GENDER	Male	2.7%	4.5%	46.4%	37.5%	8.9%	3.46
		Female	1.3%	5.0%	26.3%	52.5%	15.0%	3.75
	Total		2.1%	4.7%	38.0%	43.8%	11.5%	3.58
RURAL	GENDER	Male	1.2%	4.7%	41.2%	50.6%	2.4%	3.48
		Female			15.0%	62.6%	22.4%	4.07
	Total		.5%	2.1%	26.6%	57.3%	13.5%	3.81
URBAN	ETHNIC	Malay	3.4%	4.3%	25.6%	53.8%	12.8%	3.68
		Chinese		5.9%	56.9%	29.4%	7.8%	3.39
		Indian		4.5%	54.5%	27.3%	13.6%	3.50
		Others (bumi)			100.0%			3.00
	Total		2.1%	4.7%	38.0%	43.8%	11.5%	3.58
RURAL	ETHNIC	Malay	.5%	2.2%	26.3%	58.1%	12.9%	3.81
		Chinese			33.3%	33.3%	33.3%	4.00
	Total		.5%	2.1%	26.6%	57.3%	13.5%	3.81
URBAN	MARITAL STATUS	Single/Never married			62.5%	12.5%	25.0%	3.63
		Married	2.6%	5.9%	37.9%	43.1%	10.5%	3.53
		Divorce			100.0%			3.00
		Widowed			28.6%	57.1%	14.3%	3.86
	Total		2.1%	4.7%	38.0%	43.8%	11.5%	3.58
RURAL	MARITAL STATUS	Single/Never married		20.0%		80.0%		3.60
		Married	.7%	2.0%	30.6%	55.8%	10.9%	3.74
		Divorce			25.0%	50.0%	25.0%	4.00
		Widowed			13.9%	61.1%	25.0%	4.11
	Total		.5%	2.1%	26.6%	57.3%	13.5%	3.81

Table 6.31: Factors affecting the elderly need to live close to relatives and friend (b)

			NEED TO LIVE CLOSE TO RELATIVES AND FRIEND					Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
U R B A N	HOUSEHOLD MONTHLY NET INCOME	Below RM 3000	1.6%	3.2%	38.7%	48.4%	8.1%	3.58
		RM3000-RM4999	2.8%	2.8%	22.2%	50.0%	22.2%	3.86
		RM5000-RM6999		15.0%	35.0%	40.0%	10.0%	3.45
		RM7000-RM9999		6.5%	45.2%	45.2%	3.2%	3.45
		RM10000& above	3.0%	3.0%	51.5%	33.3%	9.1%	3.42
		Total	1.6%	4.9%	38.5%	44.5%	10.4%	3.57
R U R A L	HOUSEHOLD MONTHLY NET INCOME	Below RM 3000		4.9%	27.9%	54.1%	13.1%	3.75
		RM3000-RM4999		1.3%	29.9%	54.5%	14.3%	3.82
		RM5000-RM6999	4.2%		20.8%	58.3%	16.7%	3.83
		RM7000-RM9999			12.0%	76.0%	12.0%	4.00
		RM10000 &above			60.0%	40.0%		3.40
		Total	.5%	2.1%	26.6%	57.3%	13.5%	3.81
U R B A N	LIVING ARRANGEMENT	Alone			75.0%	25.0%		3.25
		Spouse only	3.4%		31.0%	51.7%	13.8%	3.72
		Children only			46.2%	46.2%	7.7%	3.62
		Others			50.0%	18.8%	31.3%	3.81
		Spouse & children	2.2%	7.7%	42.9%	39.6%	7.7%	3.43
		Spouse & others				100.0%		4.00
		Spouse + children + Others	4.3%	8.7%	26.1%	43.5%	17.4%	3.61
		Children & others			16.7%	75.0%	8.3%	3.92
		Total	2.1%	4.7%	38.0%	43.8%	11.5%	3.58
R U R A L	LIVING ARRANGEMENT	Alone				66.7%	33.3%	4.33
		Spouse only		33.3%	50.0%	16.7%		2.83
		Children only				60.0%	40.0%	4.40
		Others				100%		4.00
		Spouse & children			20.0%	67.3%	12.7%	3.93
		Spouse & others			33.3%	66.7%		3.67
		Spouse + children + others	1.1%	2.3%	31.8%	54.5%	10.2%	3.70
		Children & others			25.9%	48.1%	25.9%	4.00
		Total	.5%	2.1%	26.6%	57.3%	13.5%	3.81

Table 6.31 continues to further explain the factors affecting the elderly to live close to their relatives and friends. The elderly living in the urban area shows a pattern where the higher their income is, the lesser they need to live closer to their friends. Household having income of below RM 3000 (48.4% agree, 28.1% strongly agree), household having income of RM 3000-RM 4999 (50.0% agree and 22.1% strongly agree), household having income of RM 5000-RM6999 (40.0% agree and 10.0% strongly agree), household having income of RM 7000 – RM 9999 (45.2% agree and 3.2% strongly agree).

Lastly, household of the income higher than RM 10000 have the percentage of 3.1% agree and 33.3% strongly agree. It shows that a pattern does exist. A similar pattern occurs in the rural area, where elderly having higher household income displays lesser need to live closer to relatives and friends (refer to Table 6.31).

Based on Table 6.32, in terms of the urban elderly, the younger age group displays a greater percentage of “need for an appropriate house that suits age”. Contrastingly, for the rural area age group, no visible pattern can be recorded. The gender factor indicates that for urban area, the male shows a greater percentage of “need for an appropriate house that suits age”, whereas, for a rural area, the female shows a higher percentage.

For the urban area, the male has a total percentage of 15.2% agree and 18.9% strongly agree, whereas urban female elderly have slightly lower percentage with 13.8% agree and 6.3% strongly agree. Whereas, the rural male elderly only have only 10.6% agree which is lower than its female rural counterpart that have 9.3% agree and 12.8% strongly agree.

Table 6.32: Factors affecting the elderly need to have another appropriate house that suits their age (a)

			NEED ANOTHER APPROPRIATE HOUSE THAT SUITS THEIR AGE					Mean
			1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	AGE GROUP	50 - 59 years old	11.6%	25.3%	47.4%	8.4%	7.4%	2.75
		60 - 69 years old	3.0%	16.4%	49.3%	22.4%	9.0%	3.18
		70 years & above	16.7%	20.0%	40.0%	16.7%	6.7%	2.77
	Total		9.4%	21.4%	46.9%	14.6%	7.8%	2.90
RURAL	AGE GROUP	50 - 59 years old	9.2%	22.4%	57.1%	10.2%	1.0%	2.71
		60 - 69 years old	1.9%	17.3%	73.1%	5.8%	1.9%	2.88
		70 years & above	4.8%	11.9%	66.7%	14.3%	2.4%	2.98
	Total		6.3%	18.8%	63.5%	9.9%	1.6%	2.82
URBAN	GENDER	Male	8.0%	26.8%	41.1%	15.2%	8.9%	2.90
		Female	11.3%	13.8%	55.0%	13.8%	6.3%	2.90
	Total		9.4%	21.4%	46.9%	14.6%	7.8%	2.90
RURAL	GENDER	Male	4.7%	28.2%	56.5%	10.6%		2.73
		Female	7.5%	11.2%	69.2%	9.3%	2.8%	2.89
	Total		6.3%	18.8%	63.5%	9.9%	1.6%	2.82
URBAN	ETHNIC	Malay	13.7%	21.4%	37.6%	16.2%	11.1%	2.90
		Chinese	3.9%	19.6%	60.8%	11.8%	3.9%	2.92
		Indian		27.3%	59.1%	13.6%		2.86
		Others (bumi)			100.0%			3.00
	Total		9.4%	21.4%	46.9%	14.6%	7.8%	2.90
RURAL	ETHNIC	Malay	6.5%	17.7%	64.0%	10.2%	1.6%	2.83
		Chinese		50.0%	50.0%			2.50
	Total		6.3%	18.8%	63.5%	9.9%	1.6%	2.82
URBAN	MARITAL STATUS	Single/ Never married	12.5%	12.5%	75.0%			2.63
		Married	9.2%	23.5%	41.2%	17.0%	9.2%	2.93
		Divorce			100.0%			3.00
		Widowed	10.7%	14.3%	67.9%	3.6%	3.6%	2.75
	Total		9.4%	21.4%	46.9%	14.6%	7.8%	2.90
RURAL	MARITAL STATUS	Single/Never married		60.0%	40.0%			2.40
		Married	6.8%	19.7%	62.6%	10.2%	.7%	2.78
		Divorce	25.0%		75.0%			2.50
		Widowed	2.8%	11.1%	69.4%	11.1%	5.6%	3.06
	Total		6.3%	18.8%	63.5%	9.9%	1.6%	2.82

By referring to Table 6.33, for the urban elderly, the ones that have the highest percentage are the elderly who live with “spouse and children” (13.2% agree, 7.7% strongly agree) and the elderly who co-reside with “spouse + children +others” (17.4% agree and 17.4% strongly agree). Clearly, there are no visible patterns that can be seen. Whereas, for the rural area, it is recorded that elderly who live “alone” recorded the highest percentage (33.3% agree and 33.3% strongly agree). This simply means that the elderly living alone is the ones having higher needs in terms of having another house that suits his/her need.

Table 6.33: Factors affecting the elderly need to have another appropriate house that suits their age (b)

		NEED ANOTHER APPROPRIATE HOUSE THAT SUITS THEIR AGE					Mean
		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	
URBAN	LIVING ARRANGEMENT	Alone		100.0%			3.00
		Spouse only	10.3%	13.8%	37.9%	27.6%	3.14
		Children only	15.4%	15.4%	69.2%		2.54
		Others	25.0%	6.3%	62.5%	6.3%	2.50
		Spouse & children	6.6%	26.4%	46.2%	13.2%	2.89
		Spouse & others	25.0%		25.0%	50.0%	3.00
		Spouse + children + others	4.3%	34.8%	26.1%	17.4%	3.09
		Children & others	8.3%	16.7%	58.3%	8.3%	2.92
	Total	9.4%	21.4%	46.9%	14.6%	7.8%	2.90
RURAL	LIVING ARRANGEMENT	Alone		33.3%	33.3%	33.3%	4.00
		Spouse only		33.3%	50.0%	16.7%	2.83
		Children only	20.0%	20.0%	60.0%		2.40
		Others		50.0%	50.0%		2.50
		Spouse & children	7.3%	29.1%	60.0%	1.8%	2.62
		Spouse & others		16.7%	50.0%	33.3%	3.17
		Spouse + children + others	5.7%	14.8%	67.0%	12.5%	2.86
		Children & others	7.4%	7.4%	70.4%	11.1%	2.96
	Total	6.3%	18.8%	63.5%	9.9%	1.6%	2.82

Having analysed the variables related to the housing aspiration and future housing plans of the urban-rural elderly in Malaysia, it is noted that there are similarities and differences between their aspirations, especially with respect to the type of house preferences. All in all, this section had provided useful insights on the elderly's perspective and opinion on the future elderly housing plan issues.

6.5 Summary

The literature suggests that most elderly people prefer living in their own homes (Iwarsson et al., 2007), and most caregivers prefer to provide care at home (Suh et al., 2005). Individual preferences for location in later life are highly heterogeneous, the majority of the elderly people prefers ageing in place while others relocate (Kim et al., 2014).

In conclusion, for this research, we can conclude that there seem to be several slight differences in terms of housing aspiration between the urban and rural elderly. However, in general, the Malaysian elderly still consider ageing in place as their main housing options. This is true since "Ageing in place" give elderly a sense of attachment, connection and feelings of security and familiarity in relation to both homes and communities. Ageing in place related to a sense of identity both through independence and autonomy and through caring relationships and roles in the places people live (Wiles et al., 2012).

The findings in this study have also clearly demonstrated that there are differences in terms of housing need between urban and rural elderly. This is important as it may give a better outlook for the policy makers in their effort on improving the housing policy of elderly. Upon developing the framework of housing for elderly, it is thus, a must for the urban-rural and location aspect to be taken into account.

All in all, this study suggests that the majority of elderly respondents in both the urban and rural areas in Malaysia prefers to age in place. All in all, this chapter had provided the data, analysis and findings of the study. Next chapter shall conclude summary and discussions of findings that have been attained from Chapter 6.

University of Malaya

CHAPTER 7: DISCUSSION AND CONCLUSION

7.1 Introduction

The growth of the Malaysian elderly is inevitable. By the year 2050, the Malaysia elderly population is predicted to rise to 9 million (which comprises of 22 percent of the total Malaysian population). This transition needs to be accompanied with strategies and ways on proper handling of the needs of the elderly, especially with respect to their housing needs regardless of being in the urban or rural area. This study had provided evidence on the differences and similarities that exist between the urban and rural elderly in Malaysia. The survey had been done in the Kuala Lumpur and Kelantan area. In this chapter, the major findings of the study and the extent to which the study objectives have been fully achieved are summarised. Then, the implications of the findings and the contribution of this research are also highlighted in this chapter. The chapter ends with recommendations suggestion for future research.

7.2 Summary and Discussion of Major Findings

This section concludes summary and discussions of findings that have been attained from the previous chapter. A recapitulation of the research questions from Chapter 1 are as follows:

1. What are the housing options available for the Malaysian elderly?
2. To what extent do the housing needs differs between elderly living in the urban and rural area?
3. What is the aspiration of urban and rural elderly, in terms of housing type and housing specification?

7.2.1 Research Objective One: To Examine the Housing Options Available for the Malaysian Elderly

Malaysia is currently experiencing the ageing phenomenon. As such, a look into the housing options available for the Malaysian elderly is important for both planning and betterment process. The existing housing choices available for elderly in Malaysia falls into 3 categories: Family home (ageing in place), the elderly care institutions and the retirement village.

The idea of retirement villages and retirement community in Malaysia is not quite new but it is still in the early phase of localising. The idea of having elderly living independently in the retirement village for the sake of their own enjoyment and healthy beneficial is still unacceptable to the majority of the Malaysian elderly, especially the rural elderly. However, though in a very small percentage, there are positive signs that the urban elderly are beginning to accept the benefits of living in a retirement village. Rural elderly on the other hand is seen to embrace more on the *pondok* system, where they are able to live their lives more towards the religious path. The concept of religious housing in Malaysia is generally referred to as *pondok* and in Malaysia, *pondok* system has been as one of the choices for a retirement village in Malaysia (Wan Ibrahim et al., 2012). Just like normal retirement village, some of the *pondok* also provides elderly with their basic elderly facilities. However, the basic establishment of *pondok* is purely based on the religious education orientation, unlike the basic establishment concept of retirement village which focuses more on the housing and facilities for elderly (Wan Ibrahim and Zainab, 2014).

Elderly care institutions are also another form of community housing for the Malaysian elderly. Nursing homes and group homes fall under this category. These institutions

can be further segregated to 3 categories: Free, low fee and full fee establishments. At present, an optional living arrangement for Malaysian seniors besides core siding with adult children and family members is placing their elderly in elderly care institutions. However, such act and the option are primarily seen by the Malaysia community as a violation to cultural expectations. Although such act is being highly stigmatised by the community, placing elderly in such institutions is becoming a common practice due to the increase in need and demand (Dahlan et al., 2010).

The other housing option available for the Malaysia elderly is to stay in their family home or age in place. Though, other housing options available for the Malaysian elderly are growing in number, it is still seen that the Malaysian elderly are more inclined to choose to age in place and staying at their house as the main housing option. Through this study, we are able to deduce that the Malaysian elderly still prefers to age in place.

In many ageing countries, the ageing in place housing option is being promoted in their housing policy as a way of encouraging the elderly to stay at their home. For example, Singapore had their Senior-friendly housing policy where elderly can rent a Studio Apartment fitted with elderly-friendly features at a shorter lease term. Additionally, they also introduce the Multi-generation family-friendly housing, where Three generations can live together without compromising their privacy. Singapore also provides options for elderly to monetise their housing assets by having the “Enhanced Lease Buyback Scheme” to monetise part of remaining lease and “Enhanced Silver Housing Bonus” to enable elderly to downsize to smaller housing units.

Besides having a lack of policy supporting ‘ageing in place’, it is observed that the housing in Malaysia supplied by developers are not designed and equipped in such way

that it tailors the needs of elderly. With these, it is highly recommended that a policy is developed to promote ageing in place that considers attitudes, opinions and preferences of elderly in Malaysia. Elderly-friendly housing policy is important to shape the community's way of handling the elderly housing issue.

In short, it can be deduced that both the urban and rural elderly in Malaysia still consider the 'age-in-place' as their main housing options. However, it is worth noting that the urban elderly are more open to other housing options such as retirement village. Whereas, the rural elderly are more open to staying in the *Pondok* community system

7.2.2 Research Objective Two: To Differentiate the Housing Needs of Elderly Living in Urban and Rural Area

This study provides insights to the housing needs of both for urban and rural elderly in Malaysia. Further understanding and clarification of how housing characteristics and needs of the elderly vary across will help the industry to tailor solutions to meet the varied needs. Findings from this study revealed that Malaysian elderly tends to stay at their present house irrespective of the fact that they are residing in the urban or rural area. Remaining at ones' current house is seen as an advantage in terms of having a greater sense of attachment, security and familiarity (Wiles et al., 2011).

Figure 7.1 summarised the main similarities and differences that exist between housing needs of the elderly living in urban and rural areas in Malaysia. This research displays the differences between the urban and rural housing needs and. Results indicate that in term of housing, the urban elderly needs safer kitchen and bathroom area. On a similar point, rural elderly emphasise on their need for the safer bathroom area. Contrastingly, rural elderly seems to view that they need a safer staircase, which is shown in Figure 7.1.

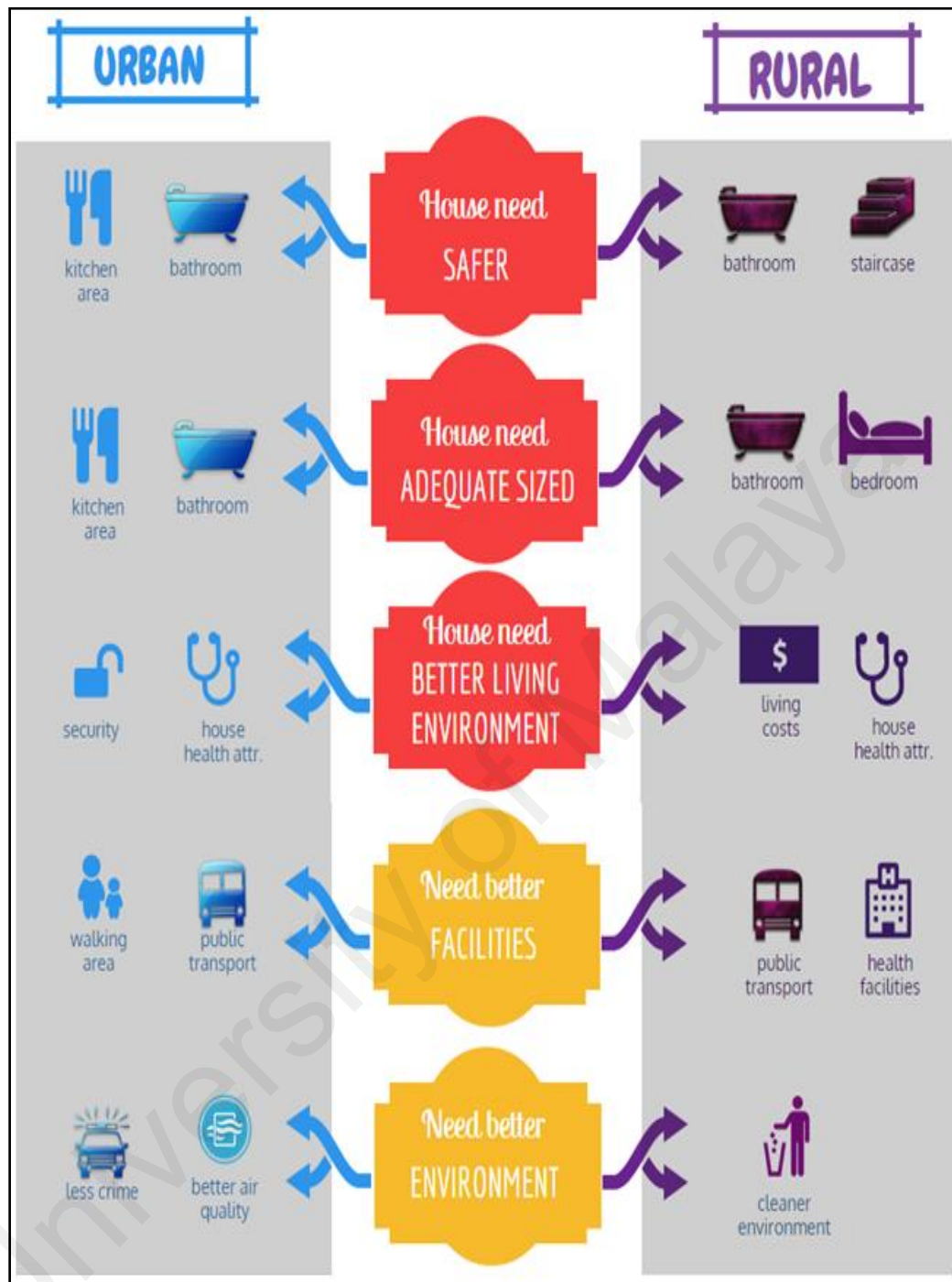


Figure 7.1: Similarities and differences between housing needs of the elderly living in urban and rural area

With respect to their housing safety issue, the elderly in an urban area is keener on wanting to have safer kitchen and bathroom area. Contrastingly, rural elderly is seen to stress the need for safer staircase and bathroom area. The similarity that exists is on the

need for the safer bathroom area. This indicates that aspects on the safety in bathroom area need to be highlighted.

A study on elderly housing hazards suggests that among the safety features that may help to increase the safety of bathroom area are the non-slippery floors, age-friendly access to bathrooms as well as having hand-railings/grab bars (Sophonratanapokin et al., 2012). Japan, for example, has their own institution of consultation on remodelling and modifying (Park et al., 2008). For example, handrails and grab bars installation by this institution may significantly increase the safety level of the bathroom area. South Korea for instance introduced House Remodelling Programme. Under this programme, allocates and gives financial support for remodelling old house owned by elderly, such as by giving a low-interest loan (Chung, 2014). Giving a hand to elderly to remodel and modifying their house can significantly increase the level of safety in the house. This thus leads to better housing condition for elderly to live in.

In terms of the living environment, both urban and rural elderly clearly implied that they need house with better health attributes. Additionally, the urban elderly also need more security whereas the rural elderly emphasise the need for better living costs. The findings suggest that adequate attention be given to infrastructures such as public transportation and health facilities.

From this study, we are able to identify that elderly are very peculiar in terms of facilities nearby to their house, especially in terms of efficient public transportation. Public transportation is seen to be lacking for both the urban and rural elderly. Efficient public transportation is important for elderly as it will allow them to have greater mobility. Elderly upon reaching their golden age may still be actively healthy, however, it is inevitable for the elderly to start losing their ability to concentrate and facing a

decline in terms of their eyesight. This may lead to their inability to drive. Thus, this further adds to the importance of having an efficient public transportation system, both in the urban and rural area.

The results also revealed that elderly living in the urban area need environments that are safer and are of better air quality. However, elderly in the rural area indicates that they need cleaner environment. The finding suggests that adequate attention be given with respect to the safety of the urban elderly. More infrastructures such as police station should be built. Rural areas in Malaysia often have their own *Rukun Tetangga* community which enhances the safety of the residents and have helped to foster positive community relations (Abdul Karim et al., 2010)

7.2.3 Research Objective Three: To Compare the Aspiration of Urban and Rural Elderly, in terms of Housing in the Future

In terms of future housing, both elderly in the urban and rural area prefer to age in place and did not consider moving. Outcomes in this research proves to be in line with the findings by Chan (2015) who highlights that elderly express their overwhelming aspiration to remain living within the community as they age, rather than moving into institutional care. Generally, older age group of respondents indicates that they are less concern to move. This proves that, as people age, their housing mobility and tendency to move decreases gradually (Wiles et al., 2009). This is similar with findings on a study by Costa-font et al. (2009) which shows that the reluctance of elderly to move to a new place increases as ones grow older.

The high preference to age in place among Malaysian elderly is also closely linked to the fact that Malaysian is among the Asian country that held strong to the filial piety concept. Majority Asian elderly expects filial piety (Wang et al., 2009) and based on

this study, Malaysia is not excluded. This shows that despite being exposed to high urbanisation level, Malaysian elderly who lives in the urban area still wants to age in place and practice a high level of filial piety, just as much as their friends living in rural area.

Table 7.1: Comparison between housing aspiration of elderly in urban and rural area

Items		Urban Elderly	Rural Elderly
Consideration to move in the future	General	Prefers to age in place	
	Age group	Older age group are less likely to move	
	Gender	Female for both areas displays higher need for ageing in place	
	Household net income	higher household net income displays lower tendency to move out	
	Current house	Elderly living in quarters and flats shows more intention to move out	Elderly living in low-cost house shows more intention to move out
Reason to move	General	Buy new house	
	Age group	Older age group of elderly shows more indication to move in with their relatives, younger age group intend to buy new home	
	Gender	Male prefers to buy new home, female are more open to other options	
Type of house to buy in future	General	Plans to buy single storey terrace	Plans to own single storey bungalow
	Age group	Younger age group are more open to other housing option	
	Household net income	Terrace house, tops as the main house preference to buy	Despite low or high household income, S/S bungalow remains the top as house preference to buy
	Current house	Mix of opinion; some prefers downsizing and some prefer to upgrade	Prefers to buy bigger house

As for the analysis with respect to the current intention of elderly who considers moving, urban elderly who have the intention to move are mostly living in quarters and low-cost house or flats (as shown in Table 7.1). It is also observed that, elderly in a rural area also displays quite similar pattern, where elderly living in low-cost flats displays intention to move out. Having to live in low-cost house and flats, restrains

elderly from having their own privacy. Sizes as well as comfortability level in low cost housing, are lower resulting in elderly wanting better housing conditions. In conclusion, despite living in the urban or rural area, elderly living in low-cost housing and flats displays a higher level of aspiration and needs for better housing conditions.

Further analysis on the main reason why some of the elderly are opting to move indicates that they wanted to buy a new house. The analysis based on age group showed that the older age group of elderly shows more indication to move in with their relatives whereas younger age group of elderly actually intends to buy a new home. Younger age group of respondents are in their early stage of retirement thus monetary wise, this explains why elderly of the younger age group are more prone to get a new house. On the contrary, elderly of the older age group shows more intention to move in with their relatives. Ironically, this shows that elderly become more dependent as they grow older and needs more people to help them around.

However, though this happens, the elderly in Malaysia still shows a lack of signs of preference to move into retirement village. They more prefer to move in with their relatives and close family as they grow older and become more dependent. Interestingly, we can learn from other countries such as Singapore, Japan and Hong Kong that cater this group of elderly by introducing their own Married Child Priority Scheme (MCPS), Recommending Cohabitation Policy as well as the Harmonious Families Priority Scheme. For example, the Married Child Priority Scheme (MCPS) facilitate elderly to age-in-place and live with or near children, where, children who had been married are given twice the weight in balloting exercises if they apply for a flat to stay near or together with their parents.

Difficulty to climb stairs is among the main reason why elderly in rural area prefers to acquire single storey bungalow, and elderly in urban area prefers single-storey terrace house. In terms of catering the need of elderly climbing up and down the stairs, Singapore through their Housing Development Board (HDB) for example, had introduced their own the Neighbourhood Renewal Programme (NRP) and Home Improvement Programme (HIP). Applying to have ramps at the main entrance of flats and in the flats is among the benefits enjoyed by the elderly through such programme.

On the other hand, most of the elderly rural respondents co-reside with their children and grandchildren, thus, this explains why elderly in a rural area is seen to show higher interest in acquiring a bigger house. MacDonald (2015) supported this finding as he highlighted that the scenario where elderly live in house that does not have sufficient bedrooms for its household needs is seen as being in core housing need. Additionally, elderly in a rural area also love the idea of having extra bedrooms for special occasions such as Hari Raya. The elderly wanted to prepare their house for such occasions where their entire family member gathers.

Urban elderly, who have the intention to move, gave a mix opinion in terms of their preference to downsize property. However, most rural elderly who plans to move actually have the intention to acquire a bigger house. Regardless of living in the urban or rural area, elderly who intends to downsize property want a smaller dwelling which demands less maintenance and has good accessibility (Fokkema et al., 1996).

Interestingly, it is noted that elderly who actually live in a large house does not want to move to a larger or same size of the house. Elderly who live in double storey house often stated that they do not fully utilise their upper storey house due to problems of climbing stairs. Hansen and Gottschalk (2006) further explain that elderly who actually

live in a large house (such as double storey bungalow) are fully aware of the disadvantages and high maintenance of living in their large house.

Above all, the elderly both in urban and rural area express their overwhelming aspiration to remain living within the community as they age, rather than moving into institutional care. Therefore, in order to facilitate successful ageing in place, house should be constructed in such way that it facilitates elderly mobility. For the elderly in urban area, for example, emphasise should be express on the importance of developing surrounding area that have walking and transportation options besides driving. These options should allow the elderly to have access to a range of services such as the hospital and clinic.

The section 7.2 had summarised the findings according to the three (3) objectives set for this study. Thus, next section will elaborate in detail on the main contributions of this study

7.3 Contribution of Research

Generally, among the contributions of this study is to examine research in the area of housing elderly, especially in terms of having to identify the differences in housing needs of the urban and rural elderly. Previously, there are only several studies done on the housing and needs of elderly (Jimenez and Koebel, 2007; Sulaiman et al., 2006). This research contributes to extend the body of knowledge on the housing needs problems particularly in differentiating the needs of the urban elderly and rural elderly. This thus closes the gap on the literature of the urban-rural differences in terms of the housing needs and housing aspirations. The differences in terms of housing needs and aspirations of the urban and rural elderly are particularly important as it can be referred to when formulating the elderly housing policy and schemes. Housing need is one of

the most vital drivers of housing policy (Chan, 2015). Furthermore, several examples of countries with their ways on handling the elderly and their housing will also benefit as it can be referred upon formulating the elderly housing policy and schemes.

Similarly with other elderly needs and housing study in Malaysia, this study also highlighted the fact that the current way of handling elderly housing needs by the state is insufficient (Sulaiman et al., 2005; Yusnani et al., 2006). There is a lack of suitable alternatives to institutional care and options available for the elderly when Malaysia family carers can no longer cope. Additionally, the elderly housing needs should be handled by housing department and not the welfare department. Consequently, information and data on the elderly housing needs and the condition are pertinent to formulate evidence based policies on how to meet the needs of the elderly generations.

7.4 Recommendation for Future Study

This study is not free from limitations and this limitation actually poses for some potential subjects for future research. Although this study provides the analysis on an urban and rural aspect of elderly housing needs in Malaysia, the study may have limitations in generalising to other international elderly housing markets. Malaysian elderly might be different in terms of environments, traditions, way of thinking and lifestyles than those elderly in other nations. Future research may look into this and compare the results of this study with those of other countries.

Additionally, there are many areas that the research on elderly housing and housing needs that can be further explored. Future research, for example, can focus only on a certain demographic profile of the respondents, for example, the financial status of the elderly. Thus, a research on the housing needs and the financial status of the elderly can be further explored. Additionally, a future research can be conducted by looking

through the perspective of the elderly caretaker (which can include their children, their relatives, personal nurses or doctors) this study is primarily being conducted through the eyes of the elderly themselves.

Another different perspective of looking into the topic of housing for elderly may provide new findings that can contribute to the body of knowledge. Furthermore, a further research can be conducted by looking specifically into one type of property and compare it with the elderly housing needs. For example, the future study can focus only on the elderly living in high rise property. Furthermore, a future research on formulating elderly housing system in Malaysia will be an advantage based on the identified needs of the elderly in this research. This research will involve studying the viability of this recommendation and framework of the elderly housing system and also its implications towards the Malaysian society and housing market.

7.5 Conclusion

This final chapter has summarised findings in terms of the housing needs of Malaysian elderly living in urban and rural area. In addition, this chapter also has provided some relevant and practical recommendations that is applicable to this study area. Finally, areas for future research in elderly housing needs were also further detailed out in this chapter.

Through this research, it can be deduce that both urban and rural elderly still held strong to the dogma that their family will take care of them the rest of their life and that they should age in place. However, there is a pattern where the urban elderly are beginning to be more open to other housing options, especially when the family can no longer cope. Nevertheless, in the long run, as Malaysia reach the status of Ageing Nation by the year 2030, or when the family institution can no longer cope, it is crucial

for us to have at least a proper plan and housing accommodations for these elderly. The extent to which the current housing stock can support the aspiration of elderly to age in place is a fundamental concern, which needs to be properly addressed.

Hence, proper planning should start from now as it takes an extensive time to construct the suitable housing policy for the elderly. Accordingly, each housing policy should start by identifying the specific housing needs of these elderly (for example, the urban and rural aspect).

Studying on the elderly housing needs and aspiration is particularly important as it can be used to relate on the development of elderly housing policy and ways on caring for the elderly. In this research, it can be construed that when it comes to the housing needs aspect, the Malaysian elderly living in urban and rural area do have certain similarities and differences. It is worth for the policy makers and relevant agencies to have a closer look at this similarities and differences, as it can help them to create better housing environment and condition for the future

REFERENCES

- Abdul Karim, H., Rashid, A., & Mareenah, S. (2010). Community participation: Towards a safer housing environment. *Asian Journal of Environment–Behaviour Studies*.
- Abramsson, M., & Andersson, E. (2014). Housing choices and housing plans of older people—in search of a tipping point. In *The ENHR Conference; Beyond Globalisation: Remaking housing policy in a complex world. Paper presented in the working group on Housing and living conditions of ageing populations, Edinburgh, Scotland, UK, 1-4 July, 2014*.
- Ahmad, W. I. W., & Ismail, Z. (2011). Population ageing and religious participation among rural elderly in Terengganu, Malaysia. *Journal of US-China Public Administration*, 8(9), 968-977
- Ambigga, K. S., Ramli, A. S., Suthahar, A., Tauhid, N., Clearihan, L., & Browning, C. (2011). Bridging the gap in ageing: Translating policies into practice in Malaysian Primary Care. *Asia Pacific family medicine*, 10(1), 2.
- Andrews, G. J., Milligan, C., Phillips, D. R., & Skinner, M. W. (2009). *Geographical gerontology: mapping a disciplinary intersection*. *Geography Compass*, 3(5), 1641-1659
- Angelini, V., & Laferrère, A. (2012). *Residential mobility of the European elderly*. *CESifo Economic Studies*, 58(3), 544-569.
- Arcury, T. A., Preisser, J. S., Gesler, W. M., & Powers, J. M. (2005). Access to transportation and health care utilization in a rural region. *The Journal of Rural Health*, 21(1), 31-38.
- Arthurson, K., Worland, P., & Cameron, H. (2007). A place to call my own: Identifying best practice in housing and mental health. In *Australian Cities Conference*.
- Banks, J., Blundell, R., Oldfield, Z., & Smith, J. P. (2012). Housing mobility and downsizing at older ages in Britain and the USA. *Economica*, 79(313), 1-26.
- Baqutayan, S. M. S., Ariffin, A. S. B., & Raji, F. (2015). Describing the Need for Affordable Livable Sustainable Housing Based on Maslow's Theory of Need. *Mediterranean Journal of Social Sciences*, 6(3 S2), 353.
- Barrett, A., Savva, G., Timonen, V., & Kenny, R. A. (2011). Fifty plus in Ireland 2011. *First results from the Irish Longitudinal Study on Ageing (TILDA)*. Dublin: *The Irish Longitudinal Study on Ageing*.
- Barry, U., & Conlon, C. (2010). Elderly care in Ireland-provisions and providers. University College Dublin. School of Social Justice

- Ba-Sabreen, S. M. A. (2013). Analyses of the Housing Environment Problems for the Elderly. *Life Science Journal*, 4, 10.
- Beer, A., & Faulkner, D. (2011). *Housing transitions through life course: aspirations, needs and policy*. Policy Press.
- Bernard, M., Liddle, J., Bartlam, B., Scharf, T., & Sim, J. (2012). Then and now: evolving community in the context of a retirement village. *Ageing and Society*, 32(01), 103-129.
- Bevan, M. (2009). Planning for an ageing population in rural England: The place of housing design. *Planning, Practice & Research*, 24(2), 233-249.
- Bodner, E., Cohen-Fridel, S., & Yaretzky, A. (2011). Sheltered housing or community dwelling: quality of life and ageism among elderly people. *International Psychogeriatrics*, 23(08), 1197-1204.
- Bond, J., Dittmann-Kohli, F., Westerhof, G. J., & Peace, S. (2007). Ageing into the future. *Ageing in Society*, 296-308.
- Bonnet, C., Gobillon, L., & Laferrère, A. (2010). The effect of widowhood on housing and location choices. *Journal of Housing Economics*, 19(2), 94-108.
- Bradshaw, J. (1972). A taxonomy of social need. *F. MacLachlan (Org.)*.
- Bramley, G., Pawson, H., Pleace, N., Watkins, D., & White, M. (2010). *Estimating Housing Need*. London: Communities and Local Government.
- Brink, M. (2013). *Future-proof platforms for aging-in-place*. Lap Lambert Academic Publishing.
- Burholt, V., & Naylor, D. (2005). The relationship between rural community type and attachment to place for older people living in North Wales, UK. *European Journal of Ageing*, 2(2), 109-119.
- Burr, J. A., & Mutchler, J. E. (2007). Residential independence among older persons: community and individual factors. *Population Research and Policy Review*, 26(1), 85-101.
- Byrne, T. (2015). Older Adults Facing Worst Case Housing Needs and Homelessness: Recent Trends and Policy Implications.
- Carroll, B., Morbey, H., Balogh, R., & Araoz, G. (2009). Flooded homes, broken bonds, the meaning of home, psychological processes and their impact on psychological health in a disaster. *Health & Place*. doi:10.1016/j.healthplace.2008.08.009
- Chan, S. (2015). Addressing the Housing Needs of an Aging Population. In *2015 Fall Conference: The Golden Age of Evidence-Based Policy*. Appam.

- Cheek, J., Ballantyne, A., Byers, L., & Quan, J. (2006). Improving the retirement village to residential aged care transition. *Australian Health Review*, 30(3), 344-352.
- Chevan, A. (1995). Holding On and Letting Go Residential Mobility During Widowhood. *Research on aging*, 17(3), 278-302.
- Chong, A. M. L., Ng, S. H., Woo, J., & Kwan, A. Y. H. (2006). Positive ageing: the views of middle-aged and older adults in Hong Kong. *Ageing and society*, 26(02), 243-265.
- Chung, I. U. (2014). The current status of old apartments and the remodeling policies in Korea. *World Cities Summit*, 21.
- Chung, S., & Park, S. J. (2008). Successful ageing among low-income older people in South Korea. *Ageing and society*, 28(08), 1061-1074.
- Chui, E. (2008). Ageing in place in Hong Kong - challenges and opportunities in a capitalist Chinese city. *Ageing international*, 32(3), 167-182.
- Clark, W. A. V. & Deurloo, M. C. (2006). Aging in place and housing overconsumption. *Journal of Housing and the Built Environment*, 21, pp. 257-270.
- Clark, C. R., Kawachi, I., Ryan, L., Ertel, K., Fay, M. E., & Berkman, L. F. (2009). Perceived neighborhood safety and incident mobility disability among elders. *BMC Public Health*, 28(9), 162.
- Corder, G. W., & Foreman, D. I. *Nonparametric statistics for non-statisticians: a step-by-step approach*. 2009.
- Costa-Font, J., Elvira, D., & Mascarilla-Miró, O. (2009). *Ageing in place'? Exploring elderly people's housing preferences in Spain*. *Urban studies*, 46(2), 295-316
- Costa-Font, J., Gil, J., & Mascarilla, O. (2010). *Housing wealth and housing decisions in old age: sale and reversion*. *Housing studies*, 25(3), 375-395
- Crisp, D. A., Windsor, T. D., Anstey, K. J., & Butterworth, P. (2013). Considering relocation to a retirement village: Predictors from a community sample. *Australian journal on ageing*, 32(2), 97-102.
- Creswell, J. W. (2012) *Research design: Choosing among five approaches*: Sage Publications.
- Creswell, J. W. & Clark, V. L. P. (2007). Designing and conducting mixed methods research.
- Cristoforetti, A., Gennai, F., & Giulia, R. (2011). *Home sweet home : The emotional construction of place*. *Journal of Aging Society*, 25, 225-232.

- Cutchin, M. P. (2009). *Geographical gerontology: new contributions and spaces for development*. *The Gerontologist*, 49(3), 440-444.
- Dahlan, A., Nicol, M., & Maciver, D. (2010). Elements of life satisfaction amongst elderly people living in institutions in Malaysia: A mixed methodology approach. *Hong Kong Journal of Occupational Therapy*, 20(2), 71-79.
- Danziger, S., & Chaudhury, H. (2009). Older adults' use of adaptable design features in housing units: an exploratory study. *Journal of Housing for the Elderly*, 23(3), 134-148.
- Davey, J., Nana, G., de Joux, V., & Arcus, M. (2004). Accommodation options for older people in Aotearoa/New Zealand. Wellington, New Zealand: NZ Institute for Research on Ageing/Business & Economic Research Ltd, for Centre for Housing Research Aotearoa/New Zealand.
- Davis, K. (2011). The urbanization of the human population. *The City Reader*, 2-11.
- Demirkan, H. (2007). Housing for the aging population. *European Review of Aging and Physical Activity*, 4(1), 33.
- Department of Statistics Malaysia (2012). *Malaysia Population Projection Report*. Putrajaya: Department of Statistics, Malaysia.
- Department of Statistics Malaysia (2010). *Laporan taburan penduduk dan ciri-ciri asas demografi 2010*. Jabatan Perangkaan Malaysia.
- Dobbs, B., & Strain, L. (2008). Staying connected: Issues of mobility of older rural adults. *Rural Ageing: A good place to grow old*, 96.
- Doling, J., & Omar, R. (2002). The welfare state system in Malaysia. *Journal of Societal and Social Policy*, 1(1), 33-47.
- Doris, P., Bakar, N. A., Idris, N. A. H., & dan Pengurusan, F. E. (2012). The health determinants of elderly Malaysian population. In *Proceeding of the 7th National Conference on Malaysian Economy*.
- Du Toit, J. L., & Mouton, J. (2013). A typology of designs for social research in the built environment. *International Journal of Social Research Methodology*, 16(2), 125-139.
- Dye, C. J., Willoughby, D. F., & Battisto, D. G. (2010). Advice from rural elders: what it takes to age in place. *Educational Gerontology*, 37(1), 74-93.
- Economic Planning Unit. (2013). *The Malaysian Economy in Figures* (updated version). Kuala Lumpur: Prime Minister's Department.
- Economic Planning Unit. (2012). *Household income survey*. Kuala Lumpur: Prime Minister's Department.

- Evans, S. (2009). 'That lot up there and us down here': social interaction and a sense of community in a mixed tenure UK retirement village. *Ageing and Society*, 29(2), 199.
- Fange, A. M., Oswald, F., & Clemson, L. (2012). Aging in place in late life: theory, methodology, and intervention. *Journal of aging research*, 2012.
- Ferrera, N., Paivab, M. M., & Villaroucob, V. (2014). Homes for the Elderly: Environmental Adequacy Versus Costs to Use. *Advances in Ergonomics In Design, Usability & Special Populations: Part III*, 18, 429.
- Flick, U. (2015). *Introducing research methodology: A beginner's guide to doing a research project*. Sage.
- Fokkema, T., Gierveld, J., & Nijkamp, P. (1996). Big cities, big problems: Reason for the elderly to move?. *Urban Studies*, 33(2), 353-377.
- Fordham, R. (1998). *Housing need and the need for housing*. Ashgate Publishing.
- Gibler, K. M., & Lee, E. (2001). Seniors housing in a changing Asian society: South Korea. *International Real Estate Review*, 4(1), 118-134.
- Glass, T. A., & Balfour, J. L. (2003). Neighborhoods, aging, and functional limitations. *Neighborhoods and health*, 1, 303-334.
- Glenn, Israel. D. (1992). *Determining sample size*. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS.
- Golant, S. M. (2012). *Out of Their Residential Comfort and Mastery Zones: Toward a More Relevant Environmental Gerontology*. *Journal of Housing for the Elderly*, 26(1-3), 26-43.
- Golini, A. (2006). The changing age structure of population and its consequences for development. United Nations, Challenges of world population in the 21st century, the changing age structure of population and its consequences for development. *Panel Discussion, New York*, 12.
- Grant, B. C. (2006). Retirement villages: An alternative form of housing on an ageing landscape. *Australasian Journal on Ageing*, 22(3), 136-140
- Hai, L. H. (2002). Electoral Politics in Malaysia: 'managing' Elections in a Plural Society. *Electoral Politics in Southeast and East Asia*, 101-148.
- Hamid, T. A., Momtaz, Y. A., & Ibrahim, R. (2012). Unmet needs among disabled elderly Malaysians. *Social science & medicine*, 75(5), 859-863.
- Hansen, E. B., & Gottschalk, G. (2006). What makes older people consider moving house and what makes them move?. *Housing, Theory and Society*, 23(01), 34-54.

- Hasegawa, T., Hoshi, T., Nakayama, N., Bosako, Y., Takahashi, T., Sakurai, N., ... & Yoshinori, F. (2011). *The effects of socioeconomic status and lifestyle on life expectancy: A structural analysis of an elderly Japanese population*. 261-264.
- Hashim, Z. A. (2010). House price and affordability in housing in Malaysia. *Akademika*, 78, 37-46.
- Hashim, R., Ahmad Rufai, S., Nor, M., & Roslan, M. (2011). Traditional Islamic education in Asia and Africa: A comparative study of Malaysia's Pondok, Indonesia's Pesantren and Nigeria's traditional Madrasah. *World Journal of Islamic History and Civilization*, 1(2), 94-107.
- Hayutin, A. M. (2007). *How population aging differs across countries*. Stanford Center on Longevity.
- Heenan, D. (2010). *Rural ageing in Northern Ireland: Quality of life amongst older people*. Belfast: Office of the First Minister and Deputy First Minister.
- Hermalin, A. I., & Myers, L. G. (2002). Aging in Asia: Facing the crossroads. In I. H. Albert (Ed.), *The Well-Being of the Elderly in Asia: A Four-Country Comparative Study*. Ann Arbor: The University of Michigan Press.
- Heywood, F. (2004). Understanding needs: a starting point for quality. *Housing Studies*, 19(5), 709-726.
- Hong Kong Buhinia Foundation Research Centre (2010). *Rethinking Housing for the Elderly*. Buhinia Foundation Research Centre
- Hoolachan, J. E. (2015). An Ethnographic Exploration of the Substance Use of Young People Living in Temporary Homeless Accommodation. *International Journal of Housing Policy*, 16 (1), pp. 31-49.
- Hossain, A. (2012). Problems and Needs of Elderly People: A Study in Bangladesh. *Middle East Journal of Age & Ageing*, 9(1).
- Human Rights Education Associates. (2011). *The Right to Housing*. Retrieved from http://www.hrea.org/index.php?base_id=149
- Hwang, E., Joo Kwon, H., Beamish, J., & Koh, S. H. (2014). Aging in Place: A Rural-Urban Comparison in Jeju Island, South Korea. *Housing and Society*, 41(2), 229-245.
- Hwang, E., Cummings, L., Sixsmith, A., & Sixsmith, J. (2011). Impacts of home modifications on aging-in-place. *Journal of Housing for the Elderly*, 25(3), 246-257.
- Iwarsson, S., Wahl, H. W., Nygren, C., Oswald, F., Sixsmith, A., Sixsmith, J., ... & Tomsone, S. (2007). Importance of the home environment for healthy aging: Conceptual and methodological background of the European ENABLE-AGE Project. *The Gerontologist*, 47(1), 78-84.

- Izuhara, M., & Forrest, R. (2013). 'Active Families': Familization, Housing and Welfare across Generations in East Asia. *Social Policy & Administration*, 47(5), 520-541.
- Izuhara, M. (2000). Changing family tradition: housing choices and constraints for older people in Japan. *Housing Studies*, 15(1), 89–110.
- Jabatan Perancangan Bandar dan Desa Malaysia. (2009). *Kajian Profil Bandar*. Kuala Lumpur: Town and Country Planning Department.
- Jiménez, M. L. G., & Koebel, C. T. (2007). A comparison of Spanish and American housing policy frameworks addressing housing for the elderly. *Journal of Housing for the Elderly*, 20(4), 23-37.
- Joo, T. T. K., & Wong, T. C. (2008). Public Housing in Singapore: A Sustainable Housing Form and Development. *Spatial Planning for a Sustainable Singapore*, 135.
- Karmel, R. (1998). Some issues in estimating housing needs. *Just Policy: A Journal of Australian Social Policy*, (12), 3.
- Katz, S., & McHugh, K. (2010). Age, meaning and place: cultural narratives and retirement communities. *A Guide to Humanistic Studies in Aging*. Johns Hopkins University Press, Baltimore, Maryland.
- Keating, N. C. (2008). *Rural ageing: a good place to grow old?*. The Policy Press.
- Khoo, K. B. T., & Loh, F. (2014). *Democracy in Malaysia: discourses and practices*. Routledge.
- Kim, J. H., & Han, J. H. (2014). Myths of migration on retirement in Korea: Do the elderly move to less dense areas?. *Habitat International*, 41, 195-204.
- Kim, S. (2011). Intra-regional residential movement of the elderly: testing a suburban-to-urban migration hypothesis. *The Annals of Regional Science*, 46(1), 1-17.
- Kim, S. H., Kim, H. B., & Gon Kim, W. (2003). Impacts of senior citizens' lifestyle on their choices of elderly housing. *Journal of Consumer Marketing*, 20(3), 210-226.
- Kose, S. (2008). Housing for an Ageing Society: Adapting Housing Design toward Universality is the Minimum Requirement for Inclusion. In *Aging, Disability and Independence: Selected Papers from the 4 th International Conference on Aging, Disability and Independence* (pp. 19-39).
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educ psychol meas*.

- Lawler, K. (2001). *Aging in place: Coordinating housing and health care provision for America's growing elderly population*. Joint Center for Housing Studies, Graduate School of Design [and] John F. Kennedy School of Government, Harvard University.
- Li, B., & Chen, S. (2011). Aging, living arrangements, and housing in China. *Ageing International*, 36(4), 463-474.
- Li, J. V. (2014). 'I Am Not Leaving Home': Post-80s' Housing Attitudes and Aspirations in Hong Kong. Available at SSRN 2347914.
- Lieder (1988). Chapter 12 The Practice of Local Government Planning. *International City Management Association, & American Planning Association Journal*.
- Lim, W. W. X., Sulaiman, N., & David, B. (2014). The provision structure of residential care home for the elderly (RCHfE) in Malaysia: policies evolution, regulations and standards.
- Lim, C. K. (2012). *The changing needs of older Malaysians: a Selangor case study*. (Doctoral dissertation, Adelaide: University of Adelaide).
- Liu, G. J., & Engels, B. (2012). Accessibility to essential services and facilities by a spatially dispersed aging population in suburban Melbourne, Australia. In *Advances in location-based services* (pp. 327-348). Springer Berlin Heidelberg.
- MacDonald, N. (2015). Addressing Core Housing Need in the City of Saint John, New Brunswick.
- Manitoba, (2012). All aboard: Manitoba's poverty reduction & social inclusion strategy. Retrieved May 10, 2015, from: http://www.gov.mb.ca/fs/allaboard/pubs/strategy_paper.pdf.
- Malaysian Statistical Departement (2010). *Laporan taburan penduduk can ciri-ciri asas demografi 2010*. Jabatan Perangkaan Malaysia.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Masud, J., Haron, S. A., & Gikonyo, L. W. (2008). Gender differences in income sources of the elderly in Peninsular Malaysia. *Journal of Family and Economic Issues*, 29(4), 623-633.
- Masud, J., & Haron, S. A. (2014). Income disparity among older Malaysians. *Research in Applied Economics*, 6(2), 116.
- Marcellini, F., Giuli, C., Gagliardi, C., & Papa, R. (2007). Aging in Italy: urban-rural differences. *Archives of Gerontology and Geriatrics*, 44(3), 243-260.
- Martin, D. J., & Loomis, K. S. (2013). *Building teachers: A constructivist approach to introducing education*. Cengage Learning.

- McKee, K., Moore, T., & Crawford, J. (2015). *Understanding the Housing Aspirations of People in Scotland*. Scottish Government.
- McKee, K., & Hoolachan, J. E. (2015). Housing Generation Rent: what are the challenges for housing policy in Scotland?. University of St Andrews.
- Milan, G., Iavarone, A., Vargas, N. F., Vargas, N. M., Fiorillo, F., Galeone, F., & Postiglione, A. (2004). Effects of demographic and environmental variables on cognitive performance in a rural community sample of elderly people living in Southern Italy. *Aging clinical and experimental research*, 16(5), 398-402.
- Minhat, H. S., & Amin, R. M. (2012). Sociodemographic determinants of leisure participation among elderly in Malaysia. *Journal of community health*, 37(4), 840-847.
- Mohammad, F., Amato, A., & Frewer, R. (2008). Inclusive Environment and Public Housing Design for Senior Citizens in Hong Kong. In *GBEN 2006 International Conference on Global Built Environment: Towards an Integrated Approach for Sustainability* (p. 81).
- Mohd Aini, A., Aziz, W. N. A. W. A., & Hanif, N. R. (2015). To Move or Not to Move?: Exploring future housing plan of ageing communities in Kuala Lumpur.
- Momtaz, Y. A., Hamid, T. A., & Ibrahim, R. (2012). Unmet needs among disabled elderly Malaysians. *Social science & medicine*, 75(5), 859-863.
- Momtaz, Y. A., Ibrahim, R., Hamid, T. A., & Yahaya, N. (2011). Sociodemographic predictors of elderly's psychological well-being in Malaysia. *Aging & mental health*, 15(4), 437-445.
- Mulder, C.H. (2008). Population and housing: A two-sided relationship. *Demographic Research* 15(13): 401-412. doi:10.4054/DemRes.2006.15.13.
- Muramatsu, N., & Akiyama, H. (2011). Japan: super-ageing society preparing for the future. *The Gerontologist*, 51(4), 425-432.
- Myers, M. D. (2013). *Qualitative research in business and management*. Sage.
- Naoum, S. G. (2012). *Dissertation research and writing for construction students*. Routledge.
- Norazizan, S. A. R., Rosnah, M. Y., Aizan, H. T., Lina, G. S. C., & Rizal, H. M. (2006). Ageing-in-Place: Towards an ergonomically designed home environment for older Malaysians. *Gerontechnology*, 5(2), 92-98.
- Nurizan, Y., & Hamid, T. A. (2005). Housing planning for old age amongst civil servants in Malaysia. *Gerontechnology*, 3(4), 238.
- O'Dell, W., Smith, M. T., & White, D. (2004). Weaknesses in current measures of housing needs. *Housing and Society*, 31(1), 29-40.

- Ong, F. S., Phillips, D. R., & Hamid, T. A. (2009). Ageing in Malaysia: progress and prospects. *Ageing in East Asia: Challenges and policies for the twenty-first century* (pp. 138-160). London: Routledge.
- O'Shea, E. (2009). *Rural ageing and public policy in Ireland: A living countryside? The politics of sustainable development in rural Ireland*, 269-285.
- Osman, A., & Gibberd, A. (2008). Housing for special needs: physical interior design to accommodate special needs. *Proceeding of Social Housing Foundation Conference, Johannesburg, 2000*.
- O'sullivan, A. (2007). *Urban economics*. McGraw-Hill/Irwin.
- Oswald, F., Jopp, D., Rott, C., & Wahl, H. W. (2011). Is aging in place a resource for or risk to life satisfaction?. *The Gerontologist*, 51(2), 238-250.
- Paik, J. and Choi, H. 2005. Successful aging according to Korean elderly: the definition, types and predicting variables. *Journal of the Korean Home Management Association*, 23,3,1–16.
- Painter, G., & Lee, K. (2009). Housing tenure transitions of older households: Life cycle, demographic, and familial factors. *Regional Science and Urban Economics*, 39(6), 749-760.
- Park, B. H., & Lee, H. O. (2007). A Comparative Research on Housing Welfare Policy for the Elderly between Korea and Japan–focused on the policy for home residence.
- Park, B. H., & Lee, H. O. (2008). A comparative study on housing welfare policies for the elderly between Korea and Japan–focused on the elderly who can live independently. *Journal of Asian Public Policy*, 1(1), 90-103.
- Parsell, C. (2012). *Home is where the house is: The meaning of home for people sleeping rough*. *Housing Studies*, 27(2), 159-173.
- Pastalan, L. A. (2014). *Optimizing housing for the elderly: Homes not houses*. Routledge.
- Pastalan, L. A. (2013). *Aging in place: The role of housing and social supports*. Routledge.
- PCAP (Presidential Committee on Ageing and Population) (2006), “*Comprehensive housing policy for the elderly in aged society Seoul*”, Seoul.
- Perks, T., & Haan, M. (2010). The dwelling-type choices of older Canadians and future housing demand: an investigation using the Aging and Social Support Survey (GSS16). *Canadian Journal on Aging/La Revue canadienne du vieillissement*, 29(03), 445-463.
- Piaw, C. Y. (2012). *Mastering Research Methods*: Mc Graw Hill Education.

- Pleace, N. (2002). Single homeless people in London: Profiles of service users and perceptions of needs.
- Pollock, G. (2007). Holistic trajectories: a study of combined employment, housing and family careers by using multiple-sequence analysis. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 170(1), 167-183.
- Presidential Committee On Ageing and Population (PCAP) (2006). *Comprehensive housing policy for the elderly in aged society 2006*. The South Korea Presidential Committee on Ageing and Population.
- Rahman, N. A. (2013). Growing Old in Singapore: Social Constructions of Old Age and the Landscapes of the Elderly. *Changing Landscapes of Singapore: Old Tensions, New Discoveries*, 126.
- Rashid, A., Ong, E. K., & Wong, E. S. Y. (2012). The attitude towards ageing among residents of an elderly care institution in Penang Malaysia. *Int J Collaborative Res Intern Med Public Health*, 4(6), 1069-1083.
- Reeves, P. (2006). *Introduction to Social Housing*. Routledge.
- Remler, D. K., & Van Ryzin, G. G. (2010). *Research methods in practice: Strategies for description and causation*. Sage Publications.
- Riji, H. M., & Ahmad, S. (2008). Older persons in pondok and community: keeping positive and healthy the Kelantanese way. *Building Healthy Communities: North & South*, 101.
- Robinson, B., & Thurnher, M. (1979). Taking care of aged parents: A family cycle transition. *The Gerontologist*, 19(6), 586-593.
- Robison, J., & Moen, P. (2000). A Life-Course Perspective on Housing Expectations and Shifts in Late Midlife. *Research On Aging*, 22(5), 499-532. doi:10.1177/0164027500225003
- Rosenbloom, S. (2009). Meeting transportation needs in an aging-friendly community. *Journal of the American Society on Aging*, 33(2), 33-43.
- Roslan, N., Memon, A. H., & Zainun, N. Y. (2013). Indicators of low-cost housing demand in Malaysia. *Malaysian Technical Universities Conference on Engineering & Technology (MUCET) 2013*.
- Rosnah, M. Y., Norazizan, S. S., Aizan, H. T., & Rizal, H. M. (2008). Home living environment design and perceptions of safety of older Malaysians. *AGE*. 168(218), 43-5.
- Rossi, P. H. (1982). Residential mobility and public policy issues: "Why families move" revisited. *Journal of Social Issues*, 38(3), 21-34.

- Salfarina, A. G., Nor Malina, M., & Azrina, H. (2010). Trends, problems and needs of urban housing in Malaysia. *International Journal of Human and Social Science.*, 5 (14) (2010), pp. 977–9
- Samad, S. A., & Mansor, N. (2013). Population Ageing and Social Protection in Malaysia. *Malaysian Journal of Economic Studies*, 50(2), 139-156.
- Sanmargaraja, S. A., & Wee, S. T. (2012). Preparation of Facilities Needed and Perception of Occupants in the Old Folks Home: Case Study in Ipoh Dan Johor Bahru. *OIDA International Journal of Sustainable Development*, 4(03), 29-42.
- Scharf, T., Phillipson, C., & Smith, A. E. (2005). Social exclusion of older people in deprived urban communities of England. *European Journal of Ageing*, 2(2), 76-87.
- Seelig, T. G., Milligan, V., Phibbs, P., & Thompson, A. (2008). *Reconceptualising housing need in the context of 21st-century Australian housing policy* (Vol. 110, pp. 1-71). Australian Housing and Urban research Institute.
- Selvaratnam, D. P., Bakar, N. A., Idris, N. A. H., & dan Pengurusan, F. E. (2012). The health determinants of elderly Malaysian population. In *Proceeding of the 7th National Conference on Malaysian Economy*.
- Selvaratnam, D. P., & Tin, P. B. (2007). Lifestyle of the elderly in rural and urban Malaysia. *Annals of the New York Academy of Sciences*, 1114(1), 317-325.
- Shankardass, M. K. (2014). Policy initiatives on population ageing in select Asian countries and their relevance to the Indian context. *Population Ageing in India*, 155.
- Shannon, W. L., Shubair, M. M., & Michalos, A. C. (2010). Surveying older adults' opinions on housing: recommendations for policy. *Social Indicators Research*, 99(3), 405-412.
- Smith, A. E. (2009). *Ageing in urban neighbourhoods: Place attachment and social exclusion*. The Policy Press.
- Somenahalli, S., Hayashi, Y., Taylor, M., Akiyama, T., Adair, T., & Sawada, D. (2016). Accessible transportation and mobility issues of elderly—how does Australia compare with Japan?. *Journal of Sustainable Urbanization, Planning and Progress*, 1(1).
- Soper, K. (2006). Conceptualizing needs in the context of consumer politics. *Journal of Consumer Policy*, 29(4), 355-372.
- Sophonratanapokin, B., Sawangdee, Y., & Soonthorndhada, K. (2012). Effect of the living environment on falls among the elderly in Thailand. *Southeast Asian Journal of Tropical Medicine and Public Health*, 43(6), 1537.
- South Korea Ministry of Health and Welfare (MHW) (2010). "Basic Plan to Address Low Fertility and Ageing", MHW, Seoul.

- Stockdale, A., & MacLeod, M. (2013). Pre-retirement age migration to remote rural areas. *Journal of Rural Studies*, 32, 80-92.
- Suh, G. H., Kil Yeon, B., Shah, A., & Lee, J. Y. (2005). Mortality in Alzheimer's disease: a comparative prospective Korean study in the community and nursing homes. *International journal of geriatric psychiatry*, 20(1), 26-34. homes.
- Sufian, A., & Mohammad, N. A. (2013). " Pondok" system as a model for retirement village in malaysia: a legal perspective. Alam cipta, International Journal of Sustainable Tropical Design Research and Practice, 6(2), 23-37.
- Sufian, A. (2012). The Accessibility of Buildings and Houses for Disabled Persons: The Law And Practice In Malaysia. *IIUM Law Journal*, 15(1).
- Sulaiman, N. (2011). *Opportunities for the transfer of United Kingdom best practices for the provision of public residential care facilities for the elderly to Malaysia* (Doctoral dissertation, Salford: University of Salford).
- Sulaiman, N. & Baldry, D., Ruddock, L., (2006). *Housing And Social Policy In Malaysia: Provision For The Elderly* (No. eres2006_120). European Real Estate Society (ERES).
- Sulaiman, N., Baldry, D., & Ruddock, L. (2005). Modes of Formal Housing Provision in Malaysia. In *Proceeding of the European Real Estate Society (ERES) Conference 2005* (pp. 14-18).
- Sumner, K. W. (2005). *Determining housing need in rural Manitoba* (Doctoral dissertation, Faculty of Graduate Studies 500 University Centre, University of Manitoba).
- Syed Abd Rashid, S. N., Rosnah, M. Y., Hamid, T. A., Lina Goh, S. C., & Mohd Rizal, H. (2006). Ageing-in-Place: Towards an ergonomically designed home environment for older Malaysians. *Gerontechnology*, 5(2), 92-98.
- Tan, T. H. (2012). Meeting first-time buyers' housing needs and preferences in greater Kuala Lumpur. *Cities*, 29(6), 389-396.
- Tatsiramos, K. (2006). *Residential Mobility and Housing Adjustment of Older Households in Europe* (No. 2435). Institute for the Study of Labor (IZA).
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.
- Tay, L., & Diener, E. (2011). Needs and subjective well-being around the world. *Journal of personality and social psychology*, 101(2), 354.
- Teo, E. A. L., & Lin, G. (2011). Building adaption model in assessing adaption potential of public housing in Singapore. *Building and Environment*, 46(7), 1370-1379.

- Thompson, E. C. (2014). Rural society: Malay and non-Malay. *Routledge Handbook of Contemporary Malaysia*.
- Tinker, A., Ginn, J., & Ribe, E. (2013). *Assisted Living Platform-The Long Term Care Revolution: A study of innovatory models to support older people with disabilities in the Netherlands*. SAGE.
- Tohit, N., Browning, C. J., & Radermacher, H. (2012). 'We want a peaceful life here and hereafter': healthy ageing perspectives of older Malays in Malaysia. *Ageing and Society*, 32(03), 405-424.
- Town And Country Planning Department Peninsular Malaysia. (2009). *Profil Bandar Negeri Kelantan*. Kuala Lumpur: JPBD.
- Treffers B (2004) Design for all: a history of discrimination by design, future cities for all. Available at: <http://www.eca.upload/History%20of%20Discrimination%20by%20Design.pdf>
- Tsien, Teresa.(2014) "Ageing in Place in Hong Kong." Paper presented at Annual Scientific Conference on Ageing, Singapore 2014. <http://www.4by3.com.sg/gs/asca2014pdf/seminar1-2.pdf> (accessed June 17, 2015).
- Tsuno, N., & Homma, A. (2009). Ageing in Asia—the Japan experience. *Ageing International*, 34(1-2), 1-14.
- Turcotte, M. (2012). Profile of seniors' transportation habits. *Canadian Social Trend*, 93, 1-16.
- United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Ageing 2013. ST/ESA/SER.A/348.ly tends to be a sign of economic self-sufficiency and higher standards of living.
- United Nations Human Settlements Programme (UN-HABITAT). (2011). *A Practical Guide for Conducting: Housing Profiles - Supporting Evidence-based Housing Policy and Reform*. UN-HABITAT.
- United Nations. Department of Economic and Social Affairs (2013) *World population prospects. The 2012 Revision: Highlights and advance table*. New York: United Nations.
- United Nations. Dept. of Economic. (2002). *World population ageing, 1950-2050* (No. 207). New York: United Nations.
- United Nations, Committee on Economic, Social and Cultural Rights (1991). Comments to the Right to Adequate Housing (Article 11.1 of the International Covenant on Economic, Social and Cultural Rights), adopted on 12 December 1991 at its 6th session, E/C.12/1991/4.

- United Nations (2008). *Principles for Older Persons*. Retrieved from http://www.un.org/esa/socdev/ageing/un_principles.html#Principles.
- Wagnild, G. (2003). Resilience and successful aging: Comparison among low and high income older adults. *Journal of gerontological nursing*, 29(12), 42-49.
- Wahl, H. W., & Oswald, F. (2010). *Environmental perspectives on ageing. The SAGE handbook of social gerontology*, 111-124. gerontology(pp. 111–124). London: Sage.
- Wan Ibrahim, W. A., Zainab, I., & Redzuan, M. R. (2012). Living Arrangement of Older Population in Rural Malaysia. *Advances in Natural & Applied Sciences*, 6(3).
- Wan Ibrahim, W. A., & Zainab, I. (2014). Some Demographic Aspects of Population Aging in Malaysia. *World Applied Sciences Journal*, 30(7), 891-894.
- Wang, D., Laidlaw, K., Power, M. J., & Shen, J. (2009). Older people's belief of filial piety in China: Expectation and non-expectation. *Clinical Gerontologist*, 33(1), 21-38.
- Wenger, G. C., & Keating, N. C. (2008). *The evolution of networks of rural older adults*. Bristol: The Policy Press.
- Wen, W. K. (2013). Futures of Ageing in Singapore. *Journal of Futures Studies*, 17(3), 81-102.
- Weeks, L. E., & LeBlanc, K. (2010). Housing concerns of vulnerable older Canadians. *Canadian Journal on Aging/La Revue canadienne du vieillissement*, 29(03), 333-347.
- Winterton, R., & Warburton, J. (2012). *Ageing in the bush: The role of rural places in maintaining identity for long term rural residents and retirement migrants in north-east Victoria, Australia*. *Journal of Rural Studies*, 28(4), 329-337.
- Willcox, D. C., Willcox, B. J., Yasura, S., Ashitomi, I., & Suzuki, M. (2012). Gender gap in healthspan and life expectancy in Okinawa: health behaviours. *Asian J Gerontol Geriatr*, 7, 49-58.
- Wiles, J., Allen, R., Palmer, A., Hayman, K., Keeling, S. & Kerse, N. (2009). *Older people and their social spaces: a study of well-being and attachment to place in Aotearoa New Zealand*, *Social Science and Medicine*, 68(4), pp. 664–671.
- Wiles, J.L., Leibing, A., Guberman, N., Reeve, J., and Allen, R. (2012). The meaning of "ageing in place" to older people. *The Gerontologist*, 52(3), 357-366
- Wong, Y. S., & Verbrugge, L. M. (2009). Living alone: elderly Chinese Singaporeans. *Journal of cross-cultural gerontology*, 24(3), 209-224.

- Wong CN: Policy response for the aging in Malaysia. Malaysian Institute of Economic Research; 2010 [http://www.mof.go.jp/jouhou/sokei/kenkyu/h18/s2_02.pdf], [Accessed 21 July 2013].
- World Health Organization.(2012). *Health statistics and health information systems. Definition of an older or elderly person*.WHO.
- Yeh, W.C. (2003). Living arrangements and lifestyle satisfaction among the elderly in Chinese immigrant families: A preliminary study. *Chang Gung Medical Journal*,26(10), 729-36.
- Yusnani, M. Y. (2005). *What Should Happen in the Future Accommodation of the Elderly in Malaysia?* (Doctoral dissertation, University of Queensland).
- Yusnani, M. Y. (2006). Accommodating the Malaysian elderly: the cultural recursors. *Ageing International*, 31(3), 185-202.
- Yin-Fah, B. C., Hamid, T. A., Masud, J., & Paim, L. (2010). Predictors of Financial Dependency in Old Age in Peninsular Malaysia: An Ethnicity Comparison. *Asian Social Science*, 6(6), P54.
- Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.
- Zainal, N. R., Kaur, G., Ahmad, N. A., & Khalili, J. M. (2012). Housing Conditions and Quality of Life of the Urban Poor in Malaysia. *Procedia-Social and behavioral Sciences*, 50, 827-838.
- Zavei, S. J. A. P., & Jusan, M. M. (2012). Exploring Housing Attributes Selection based on Maslow's Hierarchy of Needs. *Procedia-Social and Behavioral Sciences*, 42, 311-319.
- Zimmer, Z., & Chappell, N. (1997). Chapter 8: Rural-urban differences in seniors' neighborhood preferences. *Journal of Housing for the Elderly*, 12, 105-124.
- Zeng, R. (2013). *Attributes influencing home buyers' purchase decisions: a quantitative study of the Wuhan residential housing market*. (Doctoral dissertation, Southern Cross University)
- Zin, R. H. M. (2008). Poverty Eradication, Development and Policy Space in Malaysia. *Globalization and Autonomy: The Experience of Malaysia*, edited by Joan Nelson, Jacob Meermen and Abdul Rahman Embong, 116-58.