

**ASSESSMENT OF TENANT SATISFACTION WITH PUBLIC HOUSING IN  
JOHOR BAHRU**

**FATIN BINTI AZIZ**

A project report submitted in partial fulfilment of the  
requirement for the award of the degree of  
Master of Science (Real Estate)

**FACULTY OF GEOINFORMATION AND REAL ESTATE  
UNIVERSITI TEKNOLOGI MALAYSIA**

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**DEDICATION**

*Especially to my beloved husband Mohd Arshad bin Abdul Rashid and my son Muhammad Adam, for your love, encouragement and sacrificed time and money that are not rewarded this lifetime ...*

*To my beloved lecturers, for all the guidance and knowledge that given...*

*To my dearest friends for your words of encouragement and support throughout ups and down of life and shared experiences...*

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## **ABSTRACT**

Malaysian government had embarked upon several efforts to provide quality and affordable housing for every citizen. Rental Public Housing Programmes are one of the government initiatives to overcome affordable housing issues. Rental housing provided at nominal rent to the needy and are publicly funded and administered for low income families. Renting is essentially an urban tenure due to a massive waves of people moved to the cities. However, development of high rise housing in urban area for the low income people are facing problems such as housing maintenance, management and anti-social behaviors, thus need to be addressed by the government. It is therefore importance to incorporate the aspect of quality residential environment towards the affordable housing occupants. This research attempts to identify the components of residential environment and examine the relationship between resident satisfactions with residential environment. The first objective was achieved through literature review. The primary data was analysed using frequency analysis, descriptive analysis, cross-tabulation analysis and Pearson chi-square tests to achieve the second objective. It is conducted through a five-point likert scale questionnaire with a sample of 210 Rumah Iskandar respondents. The findings shows that the residents are satisfied with 38 components of the residential environment. However, there are three components recorded as dissatisfied which are firefighting system, public phone and distance to hospital. The results suggest that government and policy makers should incorporate the element of resident satisfaction in the public housing policy. This is to ensure the occupants are satisfied with the public houses supplied by the government.

## ABSTRAK

Kerajaan Malaysia telah melaksanakan beberapa usaha untuk menawarkan rumah mampu milik yang perkhidmatan yang berkualiti untuk rakyat. Program Sewaan Perumahan Awam adalah salah satu inisiatif kerajaan untuk mengatasi isu pemilikan rumah. Rumah sewa yang disediakan disewakan di bawah harga pasaran kepada mereka yang memerlukan dan dibiayai oleh kerajaan untuk keluarga berpendapatan rendah. Walau bagaimanapun, pembangunan perumahan mampu milik di kawasan bandar untuk rakyat berpendapatan rendah menghadapi masalah seperti penyelenggaraan, pengurusan dan tingkah-laku anti-sosial. Oleh itu adalah penting untuk mengambilkira aspek kualiti persekitaran kediaman dalam pembangunan rumah mampu milik. Kajian ini dijalankan untuk mengenalpasti komponen persekitaran perumahan dan hubungan di antara kepuasan penduduk dengan persekitaran kediaman. Objektif pertama dicapai melalui kajian literatur. Data analisis menggunakan analisis frekuensi, analisis deskriptif, analisis cross-tabulation dan ujian Pearson Chi-square untuk mencapai objektif kedua. Kajian dijalankan melalui lima skala Likert menggunakan 210 set borang soal selidik terhadap penduduk di Rumah Iskandar. Sebanyak 38 komponen persekitaran perumahan direkodkan sebagai berpuas hati oleh penduduk. Walau bagaimanapun, terdapat tiga komponen direkodkan sebagai tidak berpuas hati, iaitu sistem kebakaran, telefon awam dan jarak ke hospital. Berdasarkan keputusan kajian, kerajaan dan penggubal polisi perlu mengambilkira elemen kepuasan penghuni perumahan awam di dalam dasar dan polisi yang disediakan. Ini adalah untuk memastikan penghuni berpuas hati dengan perumahan awam yang disediakan oleh kerajaan.

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## LIST OF ABBREVIATIONS

UN	–	United Nation
GTP	–	Government Transformation Programme
NKRAs	–	National Key Result Areas
PR1MA	–	Perumahan Rakyat 1Malaysia or 1Malaysia People Housing
RUMAW1P	–	Federal Territory Housing or Rumah Wilayah Persekutuan
PPA1M	–	Perumahan Penjawat Awam 1 Malaysia
SPNB	–	Syarikat Perumahan Negara Berhad
NHP	–	National Housing Policy
PHP	–	Public Housing Programs
RIM	–	Rumah Iskandar Malaysia
NAR	–	National Association Realtors
YHS	–	Youth Housing Scheme

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 BACKGROUND OF THE STUDY**

Housing is a basic need of human being. Housing also contributes to socioeconomic development of the communities. It provides shelter and thus influence and shape human behavior, productivity and development. The United Nation (1977) explained housing as a neighborhood, residential environment, and the physical structure that human uses for shelter, including all necessary services, facilities, equipment and devices needed for the physical and mental health and social well-being of the family and individual. Huang et, al., (2015) stated that it is a human's right to own a house. Housing is not only related with social attachment but also regarded as a personal achievement.

Malaysia have experienced social, economy and political changes since independence. Since 1970s, the changes in economic development had rise up per capita income and rapid development in urban area. Therefore, the citizen with a low income living in the urban area experiencing pressure on housing ownership. Thus in line with rising income, citizen are demanding a better quality of housing. However

recently the accessibility to housing becomes more critical among low and middle income earners especially citizen in major towns and cities such as Kuala Lumpur, Penang and Johor Bahru.

According to Aziz et al., (2011) affordability is defined as a connection between household's housing spending and salary. Whereas affordable housing refers to the housing proposed mostly to meet the needs of households whose income are not adequate to allow them to purchase housing in the open market without assistance. It can be summarized that housing affordability is determined by the allocations of house prices, household incomes and the structure of funding cost (Bramley, 1994; Ludwig et al, 2002).

In 2010, Prime Minister of Malaysia launched the Government Transformation Programme (GTP). It is intended to change the government into an efficient and people-centred institution. There are seven points that had been designated for National Key Result Areas (NKRAs) that are decreasing crime, fight against corruption, delivering quality education, increasing living standards of low income households, helping rural development, improving urban public transport and overcome cost of living issues. Affordable housing had been recognised by the government as one of the matters that need to be undertaken in overcoming the cost of living issue.

The Federal and State Governments had embarked numerous programmes and incentives to address the affordable housing issues. Perumahan Rakyat 1Malaysia or 1Malaysia People Housing (PR1MA) was introduced by the Federal Government as part of overcoming the cost of living issue. Meanwhile, PR1MA was established under the PR1MA Act 2012, thus to plan, develop, construct and maintain affordable housing for middle income households in urban areas. PR1MA targeted the middle income groups by offering affordable home ranged between RM100, 000 to RM400, 000 per unit, thus this programmes targeted to develop 850,000 units house within the period of 10 to 15 years. The other affordable housing programmes are Federal Territory Housing or Rumah Wilayah Persekutuan (RUMAWIP), Perumahan Penjawat Awam 1 Malaysia (PPA1M) for government servant supplied by Perbadanan Putrajaya, Affordable Housing by Syarikat Perumahan Negara Berhad (SPNB), and My Home

Scheme under Ministry of Urban Well-Being, Housing and Local Government. Malaysian housing policy has focused on the direct provision of low-cost housing, or subsidizing the cost of housing for home-buyers, thus for those particularly buying homes for the first time.

Moreover, state governments also had commenced the public housing programmes. Shuid (2015), highlighted on the public housing programs by the State Government. It is executed with establishment of privatization, and private sector through joint partnership. There are several points underlined by Shuid (2015) on the differences between Federal and States Government such as on the different definition used on the house selling price and focus group in public housing arrangement. The housing price are ranging between RM42, 000 to RM400, 000 per unit with focusing in the household income ranging between RM2, 500 to RM10, 000 per month.

The intervention of Federal and State Governments in the housing market are mostly focusing on improving the supply of affordable housing. However the aspect of resident's satisfaction of affordable houses for low and middle income groups are not been integrates in the affordable housing programs. There are few studies focusing on resident's satisfaction of affordable housing. As stated in National Housing Policy (NHP), the government investment in affordable housing should supports multiple social objectives. Moreover, improvement in housing development are able to deliver improvement in health, crime, labor market outcomes, wellbeing, education, and community cohesion.

Malaysian government had set out several exertions to deliver quality and inexpensive housing for Malaysian societies. Rental Public Housing Programs are one of the government initiative to overcome affordable housing issues. Rental housing delivered at minimal rent and are funded by public and controlled for only low income households. As reported by National Housing Department, there are 56,020 units of rented public housing throughout Malaysia. The highest number of rented housing units are located at Wilayah Persekutuan Kuala Lumpur. Whilst the lowest number of rented housing units are located at Negeri Sembilan.

Table 1.1: Public Rental Housing Programs (PHP) According to State,  
2011

<b>State</b>	<b>Number of Houses (unit)</b>	<b>Occupancy (unit)</b>
Johor	6,784	5,810
Kedah	1,894	1,807
Negeri Sembilan	420	420
Perak	675	649
Perlis	1,228	1,102
Pulau Pinang	698	678
Sabah	11,031	10,548
Sarawak	1,016	1,016
Selangor	3,304	2,594
WP Kuala Lumpur	28,970	27,914
<b>Total</b>	<b>56,020</b>	<b>52,538</b>

Source: National Housing Department

There are difference between households income with the increasing price of properties especially in bigger cities. This is because of the property prices at bigger cities are sky-high, the low and middle income household are compelled to go for rented homes that are rather cheaper. The social rented housing had long been developed in Hong Kong and the United Kingdom to support the demand of houses for low and medium income households.

Due to a massive waves of people moved to the cities, renting had became an urban tenure essential. The issues of housing loan had cause most of the middle income households cannot afford to own a house. Baqutaya et al, (2016) relates the issues of housing loan with high housing price and interest rate, low income raise, and hiking price of consumer goods. This situation force the middle-income group to find another alternative to home ownership which are renting.

According to Ibem and Amole (2012) and Ibem and Aduwo (2013), residential satisfaction can be measured by people's perception of the real residential environment to meet expectations. Huang, Z. & Du, X., (2015) explains the residential satisfaction components includes housing characteristic, neighborhood characteristic, public facilities and social environment. Hence, it is based on the assumption that the housing allocation scheme, residential environment and household characteristics have

influence on residential satisfaction with public housing. The result indicates the public housing residents are concern with housing and neighborhood environment. Therefore the government should not only improve the quantity of supply of affordable houses but also improve on the quality of the houses provided to the citizen.

It is therefore importance to incorporate the aspect of quality residential environment towards the affordable housing occupants. Croucher et. al, (2008) stated that poor physical health as well as stress and mental health problem related to poor housing condition in term of overcrowding, poor insulation and air quality problems. Hence, Mohit et. al, (2010) suggested the government agencies related to the affordable housing should pay attention to the quality of residential environments to enhance the resident's satisfaction of the inhabitants. The housing policy should also build different sizes and units to cater the needs of residents with large families in order to enhance the quality of life of low and medium income urban community in the country.

## **1.2 PROBLEM STATEMENT**

The quality of housing closely related to the quality of life. However, the development of low and medium houses nowadays only focusing on the quantity supplied to ensure every households are able to occupy a house. Hence, the supply of affordable houses are lack in the quality aspect of housing. According to Zairuslan et.al (2012), the aspect of physical building and environment of housing are not included in the development of affordable houses in Malaysia. Whereas, Mohit et. al. (2010) stated that there are two main problems occurred in the development of affordable housing. He highlighted the problem in the unit supplied as not meeting the demand and secondly the type of affordable housing has not been satisfactory to the resident needs, comfort, social, cultural and religious needs. These issues will further influence the quality of life and thus affects the psychosocial aspects of the inhabitants.

The rental housing are developed to provide safe and affordable places for low-income households, the elderly and people with disabilities to reside (Hryshko, 2010). Meanwhile, Lubell et al, (2007) suggest the stability of affordable housing or rental housing are able to gives implication on childhood development. In addition,

James et. al, (2008) supports with the negative implication of inappropriate quality of affordable housing are the residents moving away, poor neighborhood and community development and under-achievement in the children's education. It is essential to develop a quality affordable housing for the targeted groups. The housing satisfaction, according to Isa et al, (2012) encompasses the quality of building, thus includes safety features, adequate facilities, amenities, and design. Colesia and Alpopi (2011) added the performance of housing, the quality and facilities may affect the residents' quality of life and encourage satisfaction.

There are increasing interest towards the study on how people think of their housing and how it affect their lives. In both UK and US, the local governments conduct regular tenant satisfaction survey to ensure that households are satisfied with the provided housing and services (Varady & Carrozza, 2000). Resident's satisfaction are important indicators to the planners, architects, developers and policymakers to supply houses according to the occupant needs and wants. It is believed that housing allocation institutions determining housing access type and housing adjustment freedom have an influence on residential satisfaction levels (Chen, Zhang, & Yang, 2013).

Malaysia's Vision 2020 emphasized on providing adequate essential shelters and accessing to health facilities as well as basic amenities, that are the basis for improving the quality of life (Tan, 2011). Affordable housing are not simply about house price, besides the government also need to focusing in providing quality amenities and facilities, therefore a wider range of socioeconomic households will choose to relocate there (Eshruq Labin et. al, 2014). Therefore, it is important for the government and related parties to incorporate the elements of wants and needs of the targeted groups for affordable houses. This is by understanding the satisfaction level of affordable housing residents in the existing projects. Based on the resident's feedback and opinion, the government are able to make improvement in quality of affordable housing supplied.



### **1.3 RESEARCH QUESTION**

Based on the issues highlighted in the problem statement, the following research questions are formulated for this study.

i) What are the determinants of residential satisfaction?

The answer for first research question will be derived from previous studies related to residential satisfaction of affordable housing. Through this research question, the components of residential satisfaction will be identified. This research question will then assist the researcher to develop a questionnaire survey to answer the second objective.

ii) What are the relationship between the affordable housing environment and the residential satisfaction?

The answer for this research question will be derived from questionnaire survey. The relationship between affordable housing environment and the residential satisfaction will be answered.

### **1.4 RESEARCH OBJECTIVE**

This research attempts to achieve the following objectives;

i) To identify the components of affordable housing residents satisfaction.

ii) To examine the relationship between affordable housing environment with level of residents satisfaction.

## **1.5 Scope of Study**

This study will focus primarily on Rumah Iskandar Malaysia (RIM) located at Gelang Patah, Johor. Thus this project is a key towards improving Johor resident's economy. The respondents of this study are the occupants of the Rumah Iskandar Malaysia.

## **1.6 Significance of Study**

The purpose of this study is to identify the components or elements of affordable housing resident's satisfaction and thus examine the relationship between the occupants satisfaction with the provided affordable housing. Therefore, the result from this research will provide benefits to the following stakeholders to acquire improvement on both new affordable housing development and upgrading the existing affordable houses.

### **a) Contribution towards knowledge**

This study is intended to enhance and create an added value towards the guideline for assessment satisfaction of affordable housing residents. The affordable housing is a government programmes to improve Malaysian living condition, thus assist the citizen to own or rent a houses within their income capacity. The satisfaction of the residents is very important to provide a clear picture to the government on what are the types of affordable houses that are required by the citizen.

### **b) Government**

From this study, the government are able to obtain knowledge from the affordable housing resident's perspective. Therefore, the government will aware on what the affordable housing resident's needs. They are able to

develop and construct affordable houses based the resident's necessities and needs.

c) Policy Makers

The policy maker are able to used finding from this study in the future as strategy towards achieving the best to satisfy resident's needs and aspirations. This study gives a picture to the policy makers on the affordable housing occupant satisfaction. To ensure the success of the affordable housing programmes, the policy maker should be sensitive to occupants needs by determining the occupant's wants and needs for the affordable houses.

## **1.7 Structure of Dissertation**

This study will be divided into six chapters. The chapter design is as follows:

### **1.7.1 Chapter 1: Introduction**

This chapter briefly describes an overview of topic studied. It will then continue with the problem statement that explains further on the issues and challenges occur in the study. This is followed by the objectives of the study and scope of study.

### **1.7.2 Chapter 2: Literature Review on Residential Satisfaction of Affordable Housing**

This chapter will discussed the definition of affordable housing, the overview of affordable housing in Malaysia, affordable housing programmes and policy. The components or elements of residential satisfaction will also elaborate in this chapter. The sources for literature review derived from academic books, journals, internet search engines and articles based on the previous studies.

### **1.7.3 Chapter 3: Research Methodology**

This chapter presents the research methodology. It will explain on the techniques of data collection and data analysis. The chosen research methodology must be able to collect and analyse data to achieve the objectives of the study. This study will start with an investigation by gathering secondary data. Secondary data usually cheaper and quicker to gather than primary data. The secondary data will be used to help define the problem and research objectives. The secondary data will be derived from Department of Statistic Malaysia, Housing Policy, National Property Information Centre, academic books, journals and articles, and internet search engines.

Whereas the primary data sources come in the form of survey information. A questionnaire survey will be used to gather the information of demographic and level of resident's satisfaction of affordable housing.

### **1.7.4 Chapter 4: Rumah Iskandar Malaysia**

This chapter details the actual housing developments that make up the case studies. It describes the layout, the housing envelope and neighbourhood. It also will explain on the chosen case study area that is located at Gelang Patah, Johor. The background of Perumahan Rakyat Iskandar Malaysia (PRISMA) will be further describes in this chapter. This includes the location, types of affordable housing, and the surrounding neighbourhood.

### **1.7.5 Chapter 5: Data Analysis and Findings**

This chapter will cover the analysis of the data that have been collected. The research methodology and the aforementioned in Chapter 3 will be applied on the data analysis to achieve the objectives of this study. The results and findings received from the analysed data will be discussed in this chapter.

### **1.7.6 Chapter 6: Recommendation and Conclusion**

This is the final stage of the study whereby the researcher will interpret the findings and draw conclusions based on the analysed data. The interpretation of findings is a very important phase of research process. This is to ensure the research questions and research objectives are achieved. The conclusion is made to support the findings of the study. The limitation and recommendation will also be proposed in the last part of the chapter.

Flow Chart of the study is shown in Figure 1.1.

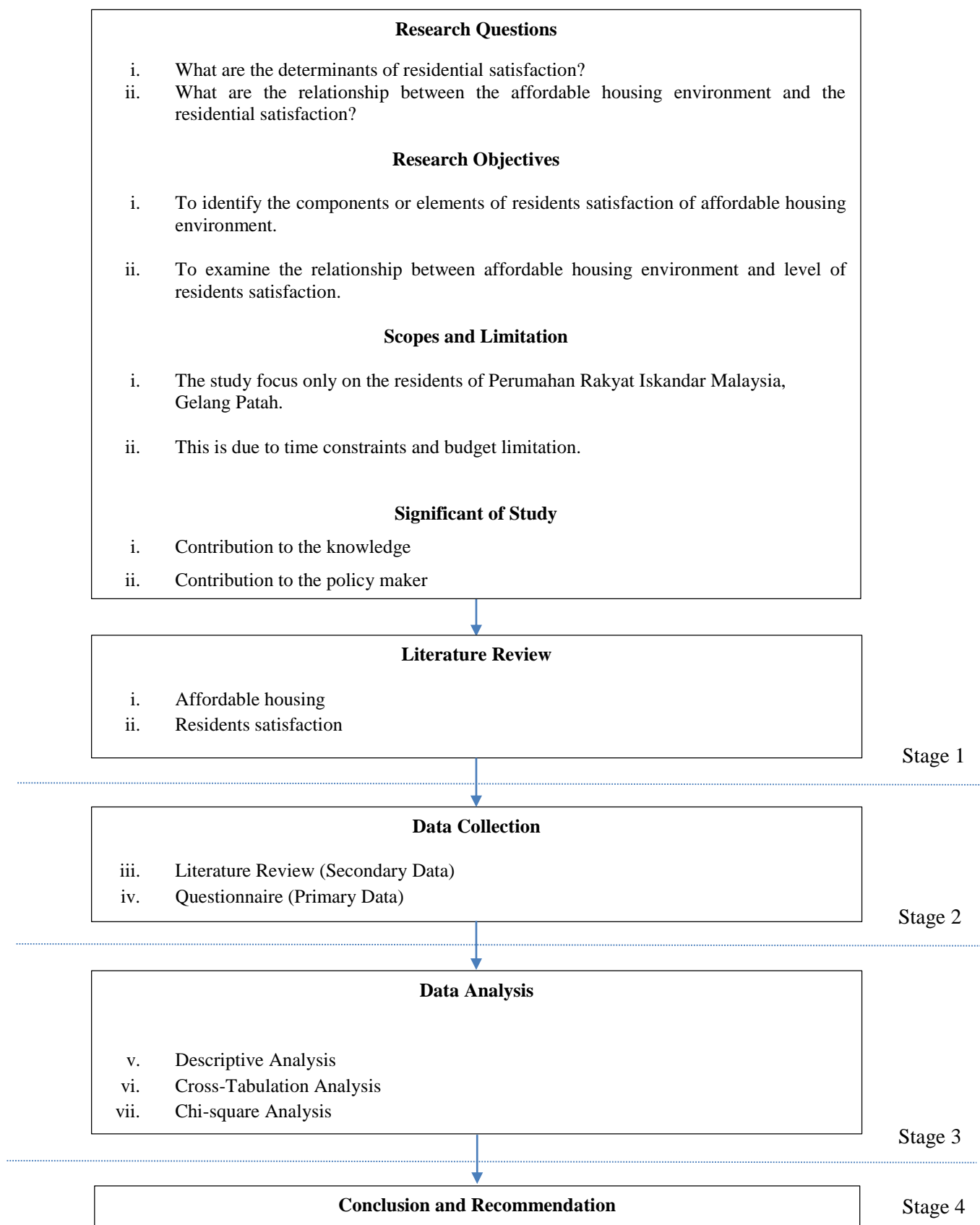


Figure 1.1: Research Flow Chart

## REFERENCES

- Adriaanse, C.C.M., 2007. Measuring residential satisfaction: A residential environmental satisfaction scale (RESS). *Journal of Housing and the Built Environment*, 22(3), pp.287–304.
- Agyefi-Mensah, S. et al., 2015. The need for post-occupancy evaluation of public apartment buildings in Ghana. *Journal of Engineering, Design and Technology*, 13(2), pp.315–333. Available at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84929091282&partnerID=tZOtx3y1>.
- Aziz, W.N.A.W.A., Hanif, N.R. & Singaravello, K., 2011. Affordable Housing Within the Middle Income Households in Malaysia: Challenge to Enter Homeownership. *Australian Journal of Basic & Applied Sciences*, 5(8), pp.258–267.
- Bakhtyar, B. et al., 2013. Quality housing in affordable price for Malaysian low income. *WSEAS Transactions on Environment and Development*, 9(2), pp.78–91.
- Bramley, G. & Watkins, D., 2016. Housebuilding, demographic change and affordability as outcomes of local planning decisions: Exploring interactions using a sub-regional model of housing markets in England. *Progress in Planning*, 104, pp.1–35. Available at: <http://dx.doi.org/10.1016/j.progress.2014.10.002>.
- Chambers, E.C. et al., 2015. Depressive Symptomology and Hostile Affect among Latinos Using Housing Rental Assistance: the AHOME Study. *Journal of Urban Health*, 92(4), pp.611–621.
- Chen, J. & Stephens, M., 2013. *The Future of Public Housing*, Available at: <http://link.springer.com/10.1007/978-3-642-41622-4>.
- Cohen, R. et al., 2001. Assessing building performance in use 4: the Probe occupant surveys and their implications. *Building Research & Information*, 29(2), pp.129–143.

CROUCHER, Karen DIANA SANDERSON, STEPHEN CHAPLIN, DIANNE WRIGHT, K.L., 2008. Housing , Regeneration and Planning. *Office*. Available at: [www.scotland.gov.uk/socialresearch](http://www.scotland.gov.uk/socialresearch).

David Jiboye, A., 2012. Post-occupancy evaluation of residential satisfaction in Lagos, Nigeria: Feedback for residential improvement. *Frontiers of Architectural Research*, 1(3), pp.236–243.

Djebarni, R. & Al-Abed, A., 2000. Satisfaction level with neighbourhoods in low-income public housing in Yemen. *PM Property Management*, 18(4), pp.230–242.

Economic Planning Unit, 2016. Providing Adequate and Quality Affordable House. , p.14. Available at: <http://rmk11.epu.gov.my/pdf/strategy-paper/Strategy Paper 06.pdf>.

Eshruq Labin, A.M.J., Che-Ani, A.I. & Kamaruzzaman, S.N., 2014. Affordable housing performance indicators for landed houses in the central region of Malaysia. *Modern Applied Science*, 8(6), pp.70–86.

Gan, Q. & Hill, R.J., 2009. Measuring housing affordability: Looking beyond the median. *Journal of Housing Economics*, 18(2), pp.115–125. Available at: <http://dx.doi.org/10.1016/j.jhe.2009.04.003>.

Gan, X. et al., 2016. Are migrant workers satisfied with public rental housing? A study in Chongqing, China. *Habitat International*, 56, pp.96–102.

Gilbert, A., 2016. Rental housing: The international experience. *Habitat International*, 54, pp.173–181. Available at: <http://dx.doi.org/10.1016/j.habitatint.2015.11.025>.

Huang, Z. & Du, X., 2015. Assessment and determinants of residential satisfaction with public housing in Hangzhou, China. *Habitat International*, 47, pp.218–230. Available at: <http://dx.doi.org/10.1016/j.habitatint.2015.01.025>.



Husin, H.N. et al., 2015. Correlation Analysis of Occupants' Satisfaction and Safety Performance Level in Low Cost Housing. *Procedia - Social and Behavioral Sciences*, 168, pp.238–248. Available at:

<http://www.sciencedirect.com/science/article/pii/S1877042814056870>.

Ilesanmi, A.O., 2010. Post-occupancy evaluation and residents' satisfaction with public housing in Lagos, Nigeria. *Journal of Building Appraisal*, 6(2), pp.153–169. Available at: <http://dx.doi.org/10.1057/jba.2010.20>.

Isa, A.A., Bin, M. & Jusan, M., 2012. End - users Participation Approach towards Effective Housing Occupancy in Malaysia : A Review. , 8(Ii), pp.183–197.

Ismail, S., Jalil, I.N. & Megat Muzafar, P.M., 2015. *Making Housing More Affordable*, Available at: [http://www.krinstitute.org/form\\_getfiledownload.aspx?id=b96679d6-20e8-4597-b9d6-8ae0549f9d6c&type=2](http://www.krinstitute.org/form_getfiledownload.aspx?id=b96679d6-20e8-4597-b9d6-8ae0549f9d6c&type=2).

Jaiyeoba, B. & Aklanoglu, F., 2012. Socio-economic Issues in “Socially Produced” Low Income Housing: Theory and Case study in Nigeria. *Procedia - Social and Behavioral Sciences*, 50(July), pp.855–864. Available at: <http://www.sciencedirect.com/science/article/pii/S1877042812032259>.

James, R.N., 2008. Impact of Subsidized Rental Housing Characteristics on Metropolitan Residential Satisfaction. *Journal of Urban Planning and Development-Asce*, 134(4), pp.166–172.

Jiram, W.R.A. et al., 2004. The evaluation of physical and environmental factors in low-cost housing.

King, M. et al., 1998. AFFORDABLE HOUSING INDICATORS I . Purpose of Affordable Housing Indicators II . Key Observations. , pp.57–84.

Kong, H., 2015. Social rental housing in HK and the UK : Neoliberal policy divergence or the market in the making ? *rcio Moraes Valença. , 49*, pp.107–114.

Li, D. et al., 2014. A methodology for ex-post assessment of social impacts of an affordable housing project. *Habitat International*, 43(2014), pp.32–40. Available at: <http://dx.doi.org/10.1016/j.habitatint.2014.01.009>.

Lopez, E. & Greenlee, A., 2016. An ex-ante analysis of housing location choices due to housing displacement: The case of Bristol Place. *Applied Geography*, 75, pp.156–175. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0143622816303472>.

Lusty, C., Smale, M. & Division, P.T., 2002. Assessing the Social and Economic Impact of. , (15).

M. Gibler, K., Tyvimaa, T. & Kananen, J., 2014. The relationship between the determinants of rental housing satisfaction and considering moving in Finland. *Property Management*, 32(2), pp.104–124. Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/PM-02-2013-0009>.

Macedo, J., 2010. Methodology Adaptation across Levels of Development: Applying a US Regional Housing Model to Brazil. *Housing Studies*, 25(5), pp.607–624. Available at: <http://www.tandfonline.com/doi/abs/10.1080/02673037.2010.483582>.

Maliene, V., Howe, J. & Malys, N., 2008. Sustainable Communities: Affordable Housing and Socio-economic Relations. *Local Economy*, 23(4), pp.267–276. Available at: <http://lec.sagepub.com/lookup/doi/10.1080/02690940802407989>.

Mcdonald, J.F., 2015. Title: Affordable Housing: An Economic Perspective. *Architecture\_Media\_Politics\_Society*, 7(73), pp.1–16.

Mohit, M.A., Ibrahim, M. & Rashid, Y.R., 2010. Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia. *Habitat*

*International*, 34(1), pp.18–27. Available at:  
<http://dx.doi.org/10.1016/j.habitatint.2009.04.002>.

Morgan, S.L., SpringerLink & National Bureau of Economic, R., 2013. *Handbook of Causal Analysis for Social Research*, Available at: <http://dx.doi.org/10.1007/978-94-007-6094-3> Acceso a través de SPRINGER. Restringido a miembros de la UGR%5Cn<http://link.springer.com/10.1007/978-94-007-6094-3>.

Mulliner, E., Malys, N. & Maliene, V., 2015. Comparative analysis of MCDM methods for the assessment of sustainable housing affordability. *Omega*, 59, pp.146–156.

O'Neill, P. et al., 2008. Housing affordability literature review and affordable housing program audit. *Urban Research Centre*, (July), pp.1–47.

Paper, C. et al., 2005. CAN LOW COST HOUSING IN MALAYSIA BE CONSIDERED AS AFFORDABLE HOUSING ? , (September 2016).

Sam, M. et al., 2012. Residential satisfaction and construction. *Scientific Research and Essays*, 7(15), pp.1556–1563. Available at: <http://www.academicjournals.org/SRE>.

Shuid, S., 2015. The housing provision system in Malaysia. *Habitat International*, 54, pp.210–223. Available at:  
<http://www.sciencedirect.com/science/article/pii/S0197397515302095>.

Sidi, S. & Sharipah, N., 2011. Quality affordable housing: A theoretical framework for planning and design of quality housing. *Journal of Techno-Social*, pp.1–10. Available at: <http://penerbit.uthm.edu.my/ojs/index.php/JTS/article/view/314>.

Stone, M., 2006. What is housing affordability? The case for the residual income approach. *Housing Policy Debate*, 17(1), pp.151–184.

The Urban Institute, Candidate Outcome Indicators : Affordable Housing Program. *Development*, 20037(202).

Waziri, A.G., Yusof, N. & Salleh, A.G., 2013. Residential Satisfaction with Private Housing Estate Development in Abuja-Nigeria. *ALAM CIPTA, International Journal of Sustainable Tropical Design Research and Practice*, 6(2), pp.3–12.

Zaid, S., 2015. Is Public Low-Cost Housing in Malaysia Really Affordable? Measuring Operational Affordability of Public Low-Cost Housing in Kuala Lumpur . *18th International Academic Conference*, (August), pp.799–814.

Zehadul Karim, A.H.M., 2013. Living condition in the low cost apartments in Malaysia: An empirical investigation. *Asian Social Science*, 9(17), pp.20–29.