RMTB

The Demand of Affordable Housing Among Middle-Income Group (M40) in Negeri Sembilan

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Abstract: Demand for affordable housing is increasing especially in developing areas such as Seremban. Locational factors and many amenities have been a major factor in increasing the demand for affordable housing (RMM). As we can see, the RMM set up by both the government and the private sector is located far from the workplace and does not have sufficient initial facilities. Home buying can be measured by various factors such as physical factors and income for long term comfort. The purpose of this study was to identify factors that influence the demand for affordable housing among the middle-income group (M40) in Negeri Sembilan. The data used in this study were quantitative data by conducting research, surveys, virtual interview and analyzing the data with the Statistical Package for Social Sciences (SPSS) and Geographic Information System (GIS). Based on the data, the study can identify the decisive factor in buying a house in Negeri Sembilan is the price as it is in line with the income of most of the population (M40). In this study, affordable housing is greatly influenced by the macro and micro factors that are key factors in meeting the needs of the people in Negeri Sembilan. Throughtout this study the researcher has improved the understanding about the subject that is carrying a huge impact on the housing sector in Negeri Sembilan and by carrying statistical computation with the data received, It allows the researcher to provide more information about the related subject to the public.

Keywords: Affordable Housing, Middle-Income Group (M40), Demand, Negeri Sembilan

1. Introduction

Residency is an essential necessity for every individual besides food, clothing, education, and medications. A comfortable residence is a part of the aspects of a harmonious, peaceful, and productive living. Each individual need is uniquely distinct from one another but essentially, people will start filtering the criteria for their residential through three stages which are needs, wants and additional

luxuries. Same goes for choosing the type and size of house, it is all simultaneously dependent to the economic reputation and their livelihood. According to the Ministry of Housing and Local Government, there are five main components involved in the process of producing residentials in the country which are planning, construction, ownership and occupancy, maintenance, repair and redevelopment, and lastly socioeconomics and governance.

Affordable housing is one of the main agenda for every nation in the world. Housing does not only represent by physical structures which provide protection for its owners but also reflected by the socioeconomics, politics, and environment. According to the United Nations Human Settlement (2011) affordable housing are defined as houses that satisfy necessities in terms of quality and location, affordability, and the buyer's financial condition after the purchase. Affordable public housing projects face many problems due to its development area (Anderson *et al.*, 2003). While another research by Frasier *et al.* (2003) states that when an area or accessibility is developed based on specified area or race, it causes conflicts and dissatisfaction among the community which leads to the existing of ghetto.

Seremban has been a strategic place to reside due to its considerable housing prices and also strategic location and accessibility (Transformations, 2011). It is strategically placed and considerably near to major cities. The network of highways that intersects with Seremban such as Maju Expressway (MEX), North-South Expressway (PLUS) and SILK Highway allow the district to have easy access to places such as Kuala Lumpur, Putrajaya and Johor Bahru.

The assessment on housing needs is vital to understand the demand of affordable housing among middle income group (M40) which are appropriate accordingly to their income and matches the pricing situation of houses offered in Seremban. The property market of houses created by the government and private developers needs to be considered as a factor of attraction for potential buyers. Through this research, related representatives from every sector related to affordable housing developments will learn about the importance of creating more affordable housing projects.

1.1 Research Background

This research is proposed to understand the demand factors of affordable housing among the middle-income groups (M40) in Negeri Sembilan. Affordable housing is defined as houses that fulfils human necessities. Price qualifications of these affordable housing are in a price range that can be managed by home renters. Furthermore, the housing affordability of the houses must not exceed 30% of their monthly income whereas another 70% will be allocated to other needs such as foods, educations, social needs, clothing, educations, and entertainment.

1.2 Problem Stetement

It is obvious that affordable housing is an essential feature that must present in any housing policy but one of the main issues to be discussed in this paper is whether the affordable housing in Negeri Sembilan have high demand amongst the middle-income group (M40). There are some stigmatizations toward affordable housing such as having bad reputation in terms of maintenance, the perception that affordable houses are full off misfits or criminals and houses that are built solely based on essential needs where it is deemed unfit for a comfortable living (Tighe, 2012).This causes the demand of affordable housing sinks and may cause emergence of unsold properties. Some affordable housings are also built in a non-strategic place whereas the targeted buyers of these houses might prefer places near to the Central Business District (CBD).

According to Kamberi *et al.* (2015), there are few factors that can relate to life satisfactions, which are health conditions, household income, educational status, housing quality, the perception of racial discrimination and pride. There are also people who are not able to purchase these housing as their price

is not in favour of the buyers. Five main challenges in the producing affordable housings are (1) Buyers incapable of buying the property following the market price, (2) Mismatch between supply and demand based on location, (3) Lack of integrated system to overcome the mismatch of supply and demand, (4) No centralisedsupervision of the affordable houses projects; and (5) The incapability of loaning for affordable housing.

One of the issues and challenges of affordable housings are the supplies which does not match the demand of affordable housing, steep price hike in major cities, lack of planning and unified implementation and inadequate public accessibilities. According to Rowley and Ong (2012), there are evidence showing that the dilemma of purchasing residentials are not only emerged due to the price but also due to other factors such as the poor build quality, residential areas with less economical and education resources and also inappropriate neighbourhood situations and lack of public amenities

1.3 Research Questions

Affordable housing attracts middle income group (M40) due to several factors. The research questions are as follows:

(i)   How does vicinity and reachability affect the demand of affordable housing?
(ii) Can macro and micro factors affect the demand of affordable housing?

1.2 Research Objectives

The objectives of this research are as follows:

(i)   To identify the factors affecting demand of affordable housing for the middle-income group (M40).
(ii) To identify the factor of reachability and vicinity as a main variables in the demand of affordable housing.

1.3 Scope of the Study

The scope of this research is focused on the middle-income group (M40). This is because M40 income group is the main contributor in the demands of affordable housing. Also, the mean of income distribution in Negeri Sembilan falls on the middle-income classifications (M40) which is around Rm 5,005. Negeri Sembilan is chosen as the case subject of this research due to the emergence of many affordable housing projects which are being promoted by the Negeri Sembilan Housing Policy. This research is also focusing on the factors affecting the demand such as income factors, housing price and social factors.

1.4 Significance of the Study

This research is conducted aiming to assist certain parties in being responsible in terms of the development of affordable housing. Furthermore, hoping to be beneficial for aiding government sectors, state administrator, private developers, and related housing agencies in making decisions regarding affordable housing.

(a) Serve as a medium of improvement for affordable housing

The role of the Ministry of Housing and Local Government (KPKT) is to plan policy, legislation, developmental procedure of housing and real estate towards a sustainable and inclusive future. Which will be used as a guide for other local state government accordingly. With the result of this research, the affordable housing policy can be improved to properly cater the middle-income group (M40).

(b) Can assess the demand of middle-income group (M40) in owning affordable houses

This research can create awareness among related authorities emphasizing that the demand of affordable housing among middle-income group (M40) is increasing so that future developments will be more sustainable in terms of pricing, security features and other necessities.

(c) Guiding future home buyers

Future home buyers can refer to this research before making decisions to guide them in assessing their decisions by deeply understanding the factors affecting demand of affordable housing.

2. Literature Review

In this section, the discussion will be more focused on the factors that affecting the demand of affordable housing for the middle-income group (M40) and the factor of location which has been vital in the surge of the demand of affordable housing. This research will refer to previous study either locally or internationally. The selection of reference will be closely related to the title of this research. Other related sub-topics will also be discussed in this chapter.

2.1 Definition of Middle-Income Group (M40)

The classification of income in Malaysia are separated between three main categories which are T20, M40 and B40. The categories represent the median of each level accordingly as the bottom 40% (B40), middle 40% (M40) and top 20% (T20). The data for household income statistics is collected by the Household Income, Expenditure and Basic Amenities Survey which is from the Department of Statistical Malaysia (DOSM). This survey is conducted twice every 5 years.

According to the Household Income, Expenditure and Basic Income Survey 2019 from the DOSM, The T20 income group have a median income ranging from at least RM 13,148, while the median income for the M40 and B40 income group has increased to RM 6,275 and RM 3,000 respectively. In Negeri Sembilan, 37% of the population are categorized as the middle-income group (DOSM, 2020).

2.2 House

Owning a house that is comfortable, assuring, and able to cater the owner's daily necessities is a dream for every household. The comfortable housing condition and peaceful environment with complete social accessibility, economics, infrastructure, recreational and aesthetical value can guarantee a quality livelihood in a society. An exquisite home located in a peaceful location does not only affect livelihood but also contribute toward prosperity and peace among Malaysian community. A home is not only about the physical existence, yet it is a place of fonder, privacy, tranquility, and the center all kinship activities. In that matter, every individual usually aims on owning a dreamhouse. Home is also defined as a place to unwind, organizing private hangouts, a place of protection and a status symbol (Azwar, 1996; Mukono, 2000). With the physical structure being made for protection, the vicinity is for conducting physical and spirituals activities that can boost families' and individual's health condition. One of the aspiration agenda in the Vision 2020, under the agenda of social well- being is the provision of adequate housing for the public. The construction of housing projects which are low-cost, medium and high is among the ways to accommodate public need, especially for those the urban population. (Shafii *et al.*, 2012).

In conjunction with the quality of livelihood, the Ministry of Housing and Local Government has outlined five (5) subjects to achieve sustainability in housing development by accommodating more quality and comfortable houses. Firstly, government will ensure quality housing for all. Secondly,

upgrading accessibility and home ownership capabilities. Third is ensuring cohesive and quality neighbourhood. Fourth is improving the coordination between housing developments and public transportation to ensure a more efficient livelihood. Fifth is reinforcing the capability of institution to commit the National Housing Policy (2018-2025). Besides, the development of housings must also emphasize the aspects of security and comfortability of the public in performing their daily activities. By doing so, the concept of quality livelihood of Malaysia can be achieved. Comfortability is subjective but generally consist of four (4) main component which is light, air quality, temperature, and noise (Kaamin *et al.*, 2013).

House is an essential need that has become a main indicator in evaluating the capability and quality of the populations' livelihood (Shuhada *et al.*, 2011). The ability of urban population to own an adequate housing in term of comfortability and liveability had always been discussed in every level. According to Mulliner & Maliene (2013), home ownership in urban area are always affected by policy, legislation, planning, implementation, needs and ability. They also suggested that home ownership in urban areas is also influenced to the guideline of housing subsidisation and incentives from the government. Agreeing with Leng *et al.* (2018), the issues of home ownership usually points out into a context that is wider than the factor of household income, household spending and house financing. Meanwhile, the complexity in the ability of owning a home among the urban population are due to the rise of cost of living, period and interest of credit facilities, and the increase in price of construction materials.

Home is a vital need. As being the grounds for security which are a quintessential need that everyone wanted. Security if a groundwork principle in the idea of housing whereas it is the first amongst the other things that people will consider into when searching for a place to reside. It is also known as an establishment of physical boundary which separate between each residence. Home is also a need to keep the welfare of the people intact (Mohd Haizzan Yahaya *et al.*, 2017). In Malaysia, the Ministry of Housing and Local Government during 1999 has emphasize few basic foundations in achieving the concept of adequate housing which are the security assurance individuals and property, infrastructure facilities, physical and mental health, and community's wellbeing (Rosniza Azni *et al.*, 2016).

2.3 Residential

Conferring to Fabun (1971), communication is symbolic yet important. The vicinity of environment around the house is not only to protect the occupants from threats, but it is also a representation of attitude, value, and emotions. A house and their location are spontaneously showing a macro symbolic. Families can predict their status in a community. The families' evaluation towards the quality of the residential mirrors their instinct towards themselves. When the residential in unacceptable in terms of social aspects, negatives effect and images may surface for the family.

Residential is environs for living which are directly corelated with the systems surrounding area, piping and sanitation, physical, technologies and socio-psychology of human in general (Lopez & Paredes, 2018). The system of housing itself consist of communities, structures, and network. According to Yusof (2012), every cultures have its own interpretation of the concept of residential. Generally, residential is associated with security, safety, privacy, and social living. Then, the evaluationof suitable residential which consists of nine dimension which are a place of activities, social ties, self-identification, centre of personal activities, privacy harbour, safe sanctuary, the place of continuity of life and growth. From the Malaysian's perspectives, conferring to Population and Housing Transcendence Report (2000) state that residence is a place to be separated from the external relations and to be free in terms of structural of shelter. Free and separated in this context is that the house is surrounded by wall, fence and covered by roof to protect it from the weather and other unwanted things.Besides, Abdu (2015) conclude that generally, housing is a physical form of needs that must be suppliedto every individual in order to promote healthy and safe living.

Meeks (1992), state that a perfect housing is the ones that can fulfil the desire of its occupant, promote household well-being, and catalyse in the enhancement of quality living. There are six features of a quality housing rather than fulfilling basic functions such as place for protection, which is giving the comfortable, peace, warm vibe and provide a good ventilation. From the security standpoint, a house should be safe in terms of design, neighbourhood, and organized interior design. It also covers the ability of providing a chance of enjoying personal space yet can socialize and contribute in the neighbourhood to contribute to the society. Residential is also a status symbol, which also will effect on self-appreciation in status or family's pride. Residential is a basic social need that is important to achieve national social goals. Although, to own a house is not a simple procedure because it requires ahuge capital, and it depends on the ability of the home buyers because a part of their household incomewill be used for reimbursement purposes (Mahmoud & Hussein, 2002).

In the design of a residential, the elements of local socio-cultural had always been neglected in the housing industry. The modern design and specification are convenient and necessary for the construction of affordable housing so that the cost is lower but the element of local features must be taken into account (Agus, 2001). Besides, the aspect of suitability that consider the number of bedroom and the location of the house should also be emphasized. The number of bedrooms should be at least three as it is suitable for families especially Muslim families. New location should be explored so that affordable housing is available in the suburban so that the price is still manageable due to the land price does not increase (Agus, 2001). Local authorities should work as efficient as possible to provide more affordable houses to most of the population as they are an important element in human capital aspect in achieving the status of develop countries and high-income countries. In Malaysia, the federal government provide many affordable housing programmes to the people.

The progress and housing policies that are changing from year to year which is planned accordingly towards the socio-economic research, financial ability, and the development of new regions. The progressing of housing sector is closely related to the background history, human settlements, the advancement of transportation network, politics, government policies, natural disasters, occupancie and expansion of power, the progress of macro and microeconomics, economical activities etc. inNegeri Sembilan, government are helping individuals or families to own a house.

Residential acts as the centre of economic activities, the symbol of achievement, social acceptance, and element of urban growth. But most people assume that owning a house is considered as biggest sole investment in a lifetime whereas some individual sees housing as a place of protection and shelter. A quality housing consists of six features that fulfils basic functions such as being a shelter that can provide a tranquil experience, warmth, and safe environment. Based on the National Housing Policy, the location of a housing is one of the factors that causes the increase in the burdens of high cost of housing, and it affect the quality of average household. In today's situation, many of the locations of low-cost houses are already located further away from the city centre. This increases the distance and time taken to accommodate to their workplace and other accessibility which then increases the cost fortransportation. This research also shows that the demand and supply of the property market has exceedadministrated boundaries. Regarding that matter, housing planning in the state and regional level mustbe integrated with the planning of transportation to ease the burdens of transportation expenses and improve the quality of household.

2.4 The Concept of Housing

According to Mohamed (2012), the defining factor in the necessity of housing is an indispensable element that should be take into consideration in deciding on the housing features in a locality. Elements such as demographic structure, credit facilities and household income. Tha demographic factors usually will be evaluated based on size and population range, age, race, and counts of household. The increase

of migration rate has driven the need of adequate housing. So, the level of income in a population can be a measuring grounds to decide the features of housing in a locality. The elements that impact the features of housing in a locality are unique according to its current situations and demands. Factor that influences the needs of housing is location, accessibility, the rise ofpopulation and social factors (Ismail, 2018).

(a) Maslow Theory of Human Need

In 1954, Abraham Maslow produces a theory which base of his thoughts about the humanneeds. Maslow uses the hierarchical concept which contain several different levels related to all essential human needs starting from things that are primitives until the level of self-actualisation as shown in the Figure 1.
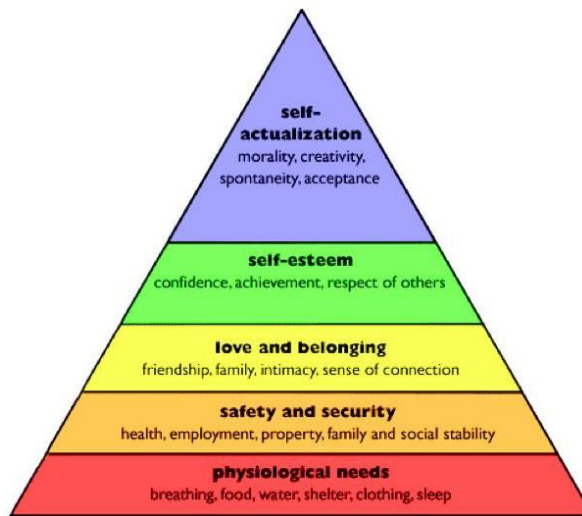
Figure 1: The hierarchical of human needs (Maslow, 1995)

Maslow depicts the drives that each human has according to these five different levels. Figure 1 shows the Maslow's Hierarchy of needs that started with psychological needs, safety and security, love and belonging, self-esteem and self-actualization. An individual will be motivated to fulfil any desire that is tangible and compelling depending on a particular moment or experience. Hierarchal of needs in housing that is suggested by Wei *et al.* (2015) applied the concept of hierarchy of needs by Maslow. Owners' satisfaction on housing is determined when their demand for a certain feature from the residential is fulfilled. But when it is, otherwise, displeasure will emerge.

Based on the theory of Maslow when psychological needs of the owner on the housing is comply with, they will pursue the next level of needs which is security and safety, this includes security in terms of physical, emotional, and financial. The living condition on an individual should be in a safe condition with housing structures that are resilient and protected. Moreover, most residence prefer a situation of environment that are strategic and well-planned where they will feel prudent to reside in the community. This includes protections against crime activity in any form or the risk of eviction.

2.5 The Definition and Concept of Affordable Housing

Housing is a component in urbanisation and plays an important role in the development of social and economics. The condition of housing signifies a proper public resource distribution, social equity, government policy and the quality of public livelihood. The path for adequate and affordable housing is a primary human right. Researchers has found correlation between the state of affordable housing availability and its huge impact on education, health, environment, employment, crime rate and social balance as stated by Berry (2003) and Yu (2005). That being said, local authority can replenish the planning of affordable housing by creatively uses its resources and work collectively with every party

(Etherington, 2013). Anderson *et al.* (2003) emphasize that development in a remote area which is something that always been accomplished is one of the reason that public housing is failing.

There are arguments about the concept of affordable housing, one of which is that the perspectives of affordable housing can be seen in a much deeper meaning than just what on the surface. Question such as how the housing can fulfil the buyers' expectation according to what they get or the correlation with the pricing and the location of the housing whichever deemed satisfactory. Moreover, no standardise method of detecting whether affordable housing is according to it policy. Issues rose on does affordable housing really met the buyers' criteria in searching for a home. As stated by Disney (2006), the main intention of affordable housing is being an accessibility that can provide convenience in rising employment and promotes community services in the same time will not burdens the owners. " affordable housing is considered as houses that affordable by household that have an average income classified by the country, province, district or township or by recognized housing affordability index" (Bhatta, 2009).

The middle-income group (M40) is the driving factor in a progressive economic growth in a nation. As outlined in the Eleventh Malaysia Plan (2016-2020), many incentives had been planned to increase the income of the bottom 40% (B40) that will increase the number of middle-income group (M40). But after post-mortem, the incentives toward the middle-income group (M40) in insufficient and somehow neglected. According to previous research by Mustaffa Al Bakri, he concluded that the residual income can be seen as an indicator that is far more suitable in evaluating housing affordability. Affordable houses in general are categorized according to financial viability. Whereas household income is closely related to household expenditure. Meanwhile the constraints of land preparation, infrastructure, financial, construction material, construction industries and frameworks institution. Local authority decides the realization of the amount of preparation and quality, the price and affordability of the product in the market.

(a) The Provision of Affordable Housing

The goal of the National Housing Policy (NHP) is to provide adequate housing that are comfortable, quality, and affordable to increase the sustainability of Malaysian population. Three objectives that has been setup to accomplish those goals is by providing high quality and adequate housing that are complete and features a conducive environment, improving the ability and accessibility of the people to own or rent a house and set a direction in pursuing sustainability in the housing sector. One of the programmes under the NHP is "Perumahan Rakyat Mampu Milik (PPRM)" and affordable housing that accommodate the demands of the M40 and B40. PPRM is also a public housing projects that are low-cost and medium cost which priced under RM300,000.00. the development of these housing projects such as "Perumahan Rakyat 1 Malaysia (PR1MA)" and National Housing Company Bhd. National Affordable Housing Policy (NAHP) has outline six (6) criteria as shown in Figure 2.

2.6 Affordable Housing Policy in Malaysia

According to Rofiei *et al.* (2013), the price of housing around Malaysia's capital are on the rise and are not in the range of affordable. Nowadays, it is not only applied to major cities, but other territories have also affected by this price hike. In parallel, the efforts of raising the average income on par with the rise of prices of commodities had already begun (Samad *et al.*, 2016). Regarding the matter, the Malaysian government had taken precautionary steps by serving multiple incentives through various policies outlined for the sake of most of the country's population. Since 1957, Malaysia had been through challenging and tough situations in solving the insufficiencies of housing supply. This includes substandard houses and squatters in urban areas. The changes in allocation in the housing sector has begun since 1970s and it is divided into four (4) phase which are Houses for the Poor (1971-1985),

Market Reform (1986-1997), Squatters Purging (1998-2011) and State Affordable Housing (2012-Present) (Shuid, 2016).
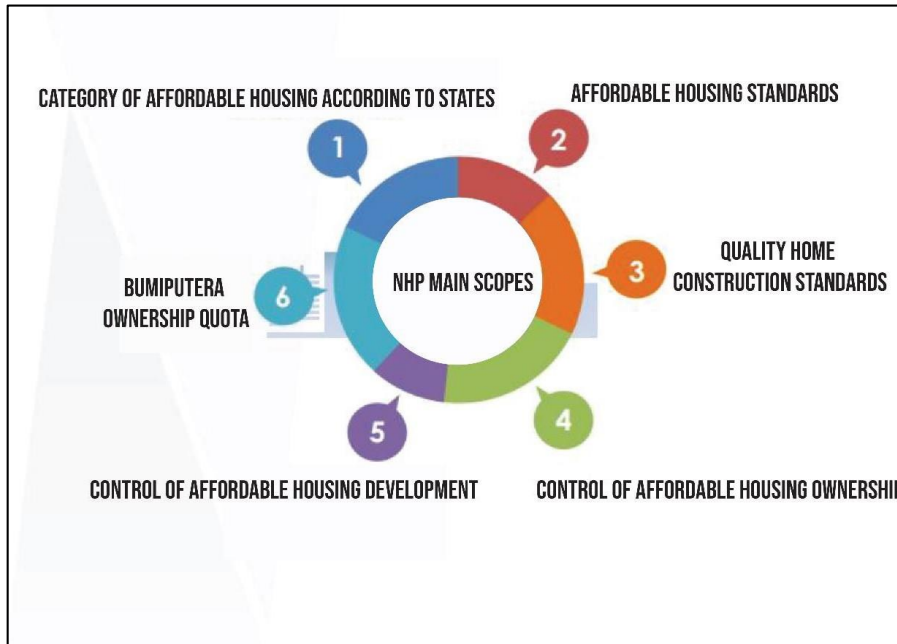
Figure 2: The Criteria of Affordable Housing (National Affordable Housing Policy, 2018)

2.7 Factor Affecting Demand of Affordable Housing in Seremban, Negeri Sembilan

House is a fixed asset that promotes constructive well-being. Owning a house can provide satisfaction and profitable for long term use (binti Shafii *et al.*, 2012) the ability to own a house also can be measured based on household income and expenditure, cost of housing and the number of vacant housing (Bujang *et al.*, 2008; Rosliana Mohamed, Zaimah, 2020). Meanwhile, the ability is a main indicator in deciding whether a certain household can own a house or the other way around. Home ownership ability is measurement of financial viability of an individual reimbursing the cost related in purchasing a house (Junaidi Awang Besar *et al.*, 2018). Most of the housing in Malaysia is still not considered to be affordable in a certain way if being measured through the standardised international method of median multiple (Samad *et al.*, 2016; Slater, 2012). The maximum price of affordable housing in Malaysia is up to RM282,000. Although, the median price of it is RM313,000 and this exceeds common average of household income in Malaysia because the median of income is RM5,228.00.

The level of ability of owning a house is uniquely different for one another and it will set different perception on affordable housing (Baqutayan, 2016; S. Osman, 2019). In this research, the ability to own a house is measured based the amount that an individual can reimburse to bear the cost related to the process of purchasing the house. The rate of capability of owning a house in terms of financing is one third of the household income.

Generally, house purchase is not a simple procedure, this is because it require huge capital and takes time for making decision (Lim, 2005). In the development of residential, things to be consider and is important is the factor of macro and micro towards the supply and demand of the real estate both of this macro and micro factor is a priority in real estate buyers before making any decision (Mei Chu Tan, 2009).

(a) Macro Factors That influence the Demand of Affordable Housing

The main factor that influences the process of acquiring is the income that and individual gain. Based on the analysis from the household income and basic amenities report 2014, there are four mains sources of income which are Income from paid employment, Income from self-employed, Income from property and investment, and Current transfers received (DOSM, 2014). The fraction of the household expenditures shown that the financing for housing is the main contributor. If there are any changes, it will still impact the components in the expenditure. Hence, household will bear the housing cost burden and will cut off certain other expenditure which are not related to housing financing.

Households depended on a sole source of income will face critical situations especially those who reside on the urban area. For an example, according to Kupke & Rossini (2011), the dependence towards sole source of income causes households in Adelaide and Melbourne having difficulties in owning a house. The level of household income capability is directly proportional to the increment of household income. This shows that for the household that consist of working spouses, the household income should be significantly higher. But if only one representatives of the household is working, the income will be lower (Arimah, 1992). Consistent reimbursement also influences income rate. The increase in income hasten the repayment of residential financing in 270 city council in Denmark which also improves the numbers of home ownerships in the country (Lauridsen et al., 2008). However, the situation is different in Germany whereas the higher the rate of household income, the lower the rate of ownership. This shows that there are some factors that influence the rate of home ownership rather than income itself (Fisher & Jaffe, 2003) that should be emphasizes in analysing the ability of home ownership.

The efforts of providing prosperous livelihood for the people is not bound in the form of financial aid. Nevertheless, governments also accentuate the protection and security through housing developments that fulfil people's basic amenities. Housing that provides basic kin conveniences also offer physical protection and quality environment. The government had strategically planned the housing developments through the Five Years Plan (Kementerian Perumahan dan Kerajaan Tempatan,

2018). The policy was enacted to focus on the development of housing at a cost suitable for the income group M40 and B40.

(b) Micro Factors That influence the Demand of Affordable Housing

Town areas are the spot that attracts variety of people and are the centre of multiple activities ranging from economics, politics, and infrastructure. Municipal often offers numerous job opportunity, housing, and being the ground in promoting relations and interactions between the population, suburban population, and even global connections (Samad Hadi et al., 2004). Residential vicinity is the best contributor towards the wellbeing of livelihood. Resident from all over the state in the country is one of the features of sustainable city which can be relished by themselves and upholds the quality of livelihood continuously. An individual can benefit from the wellbeing of livelihood that are deeply influenced by the opportunity and accessibility that their locality had to offer. Generally, the quality of livelihood in the urban areas is profoundly related to the aspects of social terms, environment, economics, infrastructure, aesthetical value, and many more. Residential wellbeing is something that focuses on the level of population reachability towards the available accessibility provided around the locality of housing which can contribute to general population wellbeing. There are numerous ways that can be applied to measure the quality of living of an individual and based on the socioeconomical guides such as income, occupation, employability, education, recreational and aesthetics (Shafii et al., 2012).

The factor that is the main influence in the value of a property is location. When comparing the location between two building, the adjustments towards its value will surface. Generally, the theory of location states that the further away the localities from the inner-city, hence the value will decrease proportionally. The main reason is because since urban areas is the centre of formal and informal activities. Urban areas attract a diverse range of people and are the hub of several activities ranging from

commerce to politics to infrastructure. Municipalities frequently provide multiple career opportunities, housing, and serve as a hub for fostering relationships and exchanges among residents, suburban residents, and even global connections. The factor of location is the determinant on does the property or building that are in the urban area are covered with decent transportation connections. According to Fahmi *et al.* (2014), the attraction of location is determined by two things which are reachability and neighbourhood. Reachability is the attraction that are caused by the dependence on venues that provide activities such as trading grounds, profession centres, industrial territories, services, financial, recreational, government services, professional services, and the combination of those activities.

Housing location factor is also the main option in choosing a house. But considering the ownership of private transportation and available public transportation will affects the location factor by undermining how location affects the demand of the property. This is in line with Sabri *et al.* (2013) where they state that the provision of network of transportation is something that influence the home ownership factors. Also, the ability to reside in the area that are near to the workplace is merely impossible as the pricing of houses that are near to the workplace is significantly higher, especially in the major cities (Sultana, 2002).

3. Research Methodology

This chapter will be focusing on the research methodology that was established and applied to evaluate the study's objectives and hypotheses completely and methodically. The data that must be collected are the most important aspect of this research because they contribute to the study's outcome. Thus, the process of gathering all of the information that will be translated into data is vital for the researcher because it aids in the achievement of the study's objectives. Furthermore, this chapter will feature a discussion of the research flowchart, which depicts the processes that must be completed. Furthermore, this chapter will include a discussion on the research hypotheses to learn more about the relationship between the independent variables and the dependent variable, which is a pre-assumption of the researcher based on the reading materials on the effect of independent variables on the dependent variable. Furthermore, this chapter will go into how the study's research is designed. The study will also cover how the data is gathered. The final section of the chapter will go through how data is inspected and analysed using a few different approaches, each of which serves a different purpose.

3.1 Problem Identification

This primary step shall assist in determining the actual circumstance, or the underlying problem that is prompting this research study. This stage assists the researcher in identifying the fundamental cause of an issue that the researcher concentrates on, as well as producing a detailed and specific problem statement. As established in chapter 1, the problems that triggers the needs of conducting this research is that the supplies of affordable housing do not match the demand of affordable housing. However, affordable housing are meant to supply the needs of community in terms of adequate housing and that includes proper planning and unified implementations and providing tolerable public accessibilities. This research will eventually aid in understanding demand determinants for affordable homes. There will be numerous aspects that will influence the outcome of demand factors in the production of affordable housing, which will aid future development plans in Negeri Sembilan. As a result, in order to understand more about this topic, the researcher will enlist the help of recognised respondents in order to collect as much data as possible to help the researcher address the study's problem. Furthermore, identifying the problem easily aids in concluding the research title and area to keep the researcher on track.

3.2 General Objectives

The core objective of the study is to investigate the demand of affordable housing in Negeri Sembilan based on the public perception on the subject.

(a) Specific Objectives

   (i) To investigate the relationship between the aspect of vicinity and reachability and the demand of affordable housing.
   (ii) To investigate the relationship between the location, income threshold and the demand of affordable housing.
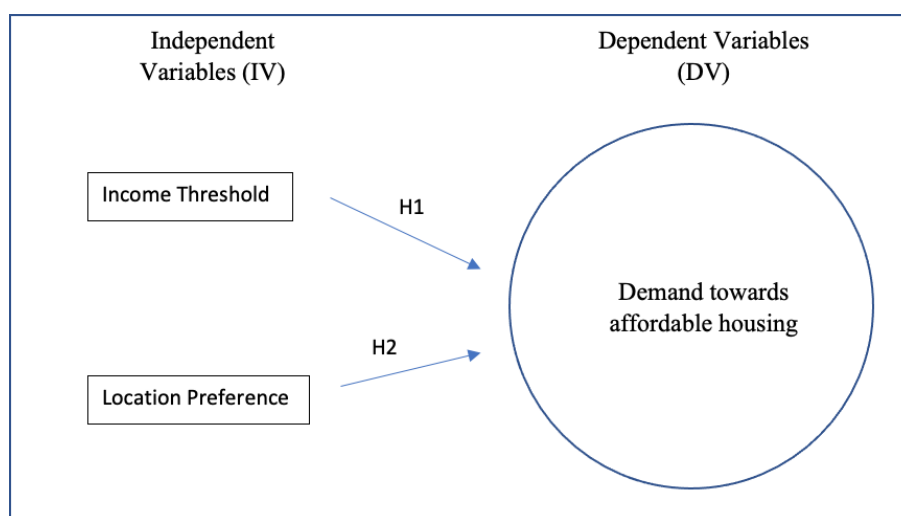
(b) Hypotheses

Figure 3 depicts the elements classified as independent variables (IV) and dependent variables (DV). The independent variables are three in number: income threshold and location preference. Meanwhile, the demand for affordable housing is the study's dependent variable. The independent variables will be the things that influence or do not influence the dependent variable. Each of these independent variables will have an impact on the respondent's demand for affordable housing.

(i)   Income Threshold

   H_1 : There is a correlation between income threshold and demand of affordable housing.

(ii) Location Preference

   H_2 : There is a correlation between the location preference and the demand of affordable housing

Figure 3: Theoretical Framework

According to the hypotheses stated above, the researcher anticipates a positive association between the independent and dependent variables. To be more specific, the researcher assumes that income thresholds influence the demand for affordable housing, and that location preferences influence the demand for affordable housing as well.

3.3   Research Framework and Research Design

Generally, this research is quantitative research in a descriptive form to identify and study the factors affecting demand of affordable housing among middle-income group (M40) in Seremban

empirically and systematically. According to Creswell *et al.* (2007), the research framework is a procedure in qualitative and quantitative research where researchers will conduct a survey towards the a sample or the whole population. Quantitative research can be described as research that were conducted statistically and involves at least more than 10 respondents to measure the outcome of the related variable in the research. Research study that applies quantitative method gathers result experimentally and accumulate numerical data which is analytically and statistically tested (Chua Yan Piaw, 2011). The data used must be mandatorily measured to substantiate the trustworthiness and which can be used for theory testing, fabricating facts, and correlating existing variables.

3.4 Sample

According to Saunders *et al.* (2007), sampling is the process of selecting a unit, group, or organization from a single population to study. Preparing a sample is an important aspect of research because improper use of samples will reduce the error and reliability of the study. The population is a large group of individuals to study. The term population refers to a whole set of study subjects that are not confined to the human group but include the group of subjects that are the focus of the study (Yahya, 2002).

3.5 Data Collection

In this study, the researcher will focus mainly on primary data. The source of the primary data can be collected from the distribution of the questionnaire through an online basis, in which the researcher will use a communication application, which is WhatsApp. The researcher will use this platform to distribute the questionnaire to specified groups and individuals until the target demographic reaches.

Primary data is one of the most influencing techniques in the quantitative method (Rahi, 2017). It is derived by the researcher personally or firsthand, without reference to other reading materials. Gathering and analysing primary data is the act of making sense of the acquired data in order to support or reject the study's research premise. The data was collected from the actual location of the events by giving the questionnaire to the responders. The questionnaire will include questions based on the research objectives and will be separated into three sections based on several factors:

- Part A: Respondent Background
- Part B: The perception from respondents towards the topic of affordable housing
- Part C: The importance of development of affordable housing in Seremban, Negeri Sembilan

The question is straightforward and in the form of a closed-ended question, allowing the respondent to readily answer the inquiry. Parts B and C of the questionnaire will be organised using a Likert scale.

3.6 Data Analysis

To test the validity of the study, the researcher will carry out Cronbach's alpha method that measures of internal consistency of a set of items in a survey instrument (MacKison *et al.*, 2009). Generally, the Cronbach's alpha values should be beyond 0.70, that ranging from 0.7 to 0.9 to be considered acceptable for inclusion. Researcher shall avoid alpha value that lower than 0.6.

4. Research Analysis and Discussion

This chapter will explain the results of the analysis of raw data generated and collected throughout the study period. As a result, more than 34 respondents participate in this study using online platforms. The data was analysed using the frequency distribution for the demographic profile of the respondents and the independent variables. The Statistical Package for Social Science Statistics (SPSS) software

package is also used to run various tests. The SPSS programme was useful in storing data and processing the results. The output or analysed data is utilised to examine the research study to see if the outcome is compatible with the hypothesis stated and mentioned in Chapter Three;

H_1: There is a correlation between income threshold and demand of affordable housing.

H_2: There is a correlation between the location preference and the demand of affordable housing.

4.1 Factor Analysis

A factor analysis is a test that was used to determine the link between the items in a survey instrument. Because the researcher has chosen to rely on primary data, all raw data obtained must pass a reliability test. Cronbach's alpha was the name of the test that was run. The primary goal of this test is to determine the internal consistency or average correlation between variables that contain both dependent and independent variables (MacKison *et al.*, 2009). According to Scheuer *et al.* (2003) study, the rules of thumb for Cronbach's alpha are as follows: "From the Cronbach's alpha test, if the alpha displays a value that is greater than 0.9, it suggests that the value is outstanding." If the alpha value is more than 0.8, the value is considered good. If the alpha value is larger than 0.7, the condition is met. It denotes that the outcome is satisfactory. Meanwhile, if the alpha value is more than 0.6, it is seen as questionable. If the alpha value is larger than 0.5, the consistency between variables is poor, and if the alpha value is less than 0.5, the consistency is undesirable. In general, if the alpha value falls between
0.6 and 1.0, it can be deemed to have a good dependability value. Meanwhile, if the alpha value is less than 0.6, it indicates a low level of reliability.

4.2 Income Threshold as Factor That Affecting the Demand of Affordable Housing in Negeri Sembilan

The variables and mean averages on the income variable are shown in the descriptive statistic in Table 1. Likert scales are used to assess the strength of respondents' opinions about the factors. This table examine how high does income threshold may affect market demand for affordable housing. On a scale of one to five, one indicates strongly disagree and five indicates strongly agree with the stated assertions. The table shows the minimum and maximum values that indicate each respondent's viewpoint. The lowest (1.00) indicates that the respondent strongly disagrees with the statement, while the highest (5.00) indicates that the respondent strongly agrees with the statement.

Table 1: Income Threshold as Factor That Affecting the Demand of Affordable Housing in Negeri Sembilan

	N	Min	Max	Mean	Std. Deviation
The affordable housing in Negeri Sembilan is affordable	34	1.00	5.0	2.7647059	1.0461712
The prices of housing projects that are emerging in Negeri Sembilan aligh with the comfort zone of minimum wages	34	1.00	5.0	2.5882352	1.1313078
Affordable housing area have a good standard of living	34	1.00	5.0	4.0294118	0.8343131

According to the table, the highest mean was 4.0294 with the statement, "Affordable housing area have a good standard of living". From the statement, most of the respondent agrees that the standard of living on the area of affordable houses has a good standard of living. This statement can be supported with few studies conducted by Harahan *et al.* (2006), where affordable houses must maintain a quality

standard of living and provide adequate accommodations. This statement indicates that the respondents are aware of the subject of this research.

The second highest mean average recorded was 2.765 with the statement, "The affordable housing in Negeri Sembilan is affordable". According to this outcome, it shows that the respondents has a perception that not all affordable houses in Negeri Sembilan is merely affordable as it was intended to.The pricing of these housing are not accordingly due to factors such as the increasing cost of building material and services.

The lowest mean average for this income threshold factor is, "The prices of housing projects that are emerging in Negeri Sembilan align with the comfort zone of minimum wages." with 2.5882. Nowadays,as the standard of living increases due to the economic inflation that are happening due to the pandemic, the minimum wages are not deemed as sufficient as it is. The perception of the respondent on the priceof affordable houses are clear as day that they are not align with the minimum wages that are currentlyin the policy today. This is crucial because the income factor hold a very high impact on the demand of affordable housing for if it will slow down the market when people have no buying power over the properties which will causing an emergence of unsold properties.

4.3 Location Preference as Factor That Affecting the Demand of Affordable Housing in Negeri Sembilan

The variables and mean averages on the location preference variable are shown in the descriptive statistic Table 2. Likert scales are used to assess the strength of respondents' opinions about various factors. This table examines how geographical preferences influence the demand for affordable housing. On a scale of one to five, one indicates strongly disagree with the given assertions,while five indicates strongly agree with them. Minimum and maximum numbers are displayed in the table that represents each respondent's question. The lowest (1.00) indicates that the respondent stronglydisagrees with the statement, while the highest (5.00) indicates that the respondent strongly agrees withthe statement.

Table 2: Location Preference as Factor That Affecting the Demand of Affordable Housing in Negeri Sembilan

	N	Min	Max	Mean	Std. Deviation
The situation in affordable houses area is concerning	34	1.00	5.0	4.6176471	0.6969503
Location of affordable houses project has affected the intended nature of affordable housing	34	1.00	5.0	3.5882353	1.1577839
People are willing to spend less yet compromising with the location of the housing	34	1.00	5.0	4.0588235	1.0427579

According to the table, the highest mean recorded was 4.6176 with the statement of "The situation in affordable houses area is concerning". The respondents were mostly agree on the statement due to the stigmatization that are present in affordable houses as stated by Tighe (2012) where there are perceptionthat affordable housing have a bad reputation in terms of maintenance, and that affordable houses are full off misfits or criminals and houses that are built solely based on essential needs where it is deemedunfit for a comfortable living. This is alarming as there should be neutral perception towards affordablehouses as there are more factors that can contribute towards the decrease in market liquidity as stated by Rowley & Ong (2012), such as the poor build quality, residential areas with less economical and education resources and also inappropriate neighbourhood situations and lack of public amenities.

The second highest mean were coming from the statement "People are willing to spend less yet compromising with the location of the housing" with 4.0588. This shows that the perception of the respondents on whether between the two factors of the hypotheses in this research location or price, price are more concerning in finding the suitable housing. According to Osman *et al.* (2018), the criteria in selecting affordable housing come down more to the price than it is than with the location.

The statement "Location of affordable houses project has effected the intended nature of affordable housing" receive the lowest mean with 3.5882. This statement is what the respondent are still agreeing but mostly were neutral about it. This is because most affordable houses projects in Negeri Sembilan were not so deeply buried in the suburb and the location is still accessible and near to the central business district (CBD) and therefore implies that the location of affordable houses are still acceptable to reside.

4.4 Reliability Test

Table 3 shows the reliability statistic test. From the statistic table above, Cronbach's alpha was tested with 11 items in total that includes the dependent; the demand of affordable housing, and independent variables; income threshold and location preference in the questionnaire. The alpha coefficient for the total of 11 items was 0.720 which indicates that the items are having an acceptable consistency.

Table 3: Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standarized Items	N of Items
.720	.708	11

4.5 Normality Test

A normality test is conducted to see whether the data are normality distributed or not. All the variables, including dependent (DV) and independent (IV) variables, will be tested under the Shapiro-Wilk method by referring to the table and histogram figures. The table below shows the significant value for both dependent (DV) and independent (IV) variables. The independent variables include income threshold and location preference, while the dependent variable is the demand of affordable housing. The alpha value that is used in this study is 0.5. The normality test for both dependent (DV) and independent (IV) variables. The table shows that the significant value for all independent variables is 0.000, which is less than the alpha value of 0.5. The researcher deduces from this value that there is a statistically significant difference between all variables and the normal distribution; there is a statistically significant difference between income and the normal distribution; and there is a statistically significant difference between location preference and the normal distribution. As a result, the scores of the independent variable are not regularly distributed. Move on to the dependent variable, the demand of affordable housing. The significant value for this variable is also 0.000, smaller than the alpha value which indicates that there is a statistically significant difference between the demand of affordable housing and normal distribution. Hence it is considered not normally distributed.

4.6 Relationship between Income Threshold and the Demand of Affordable Housing

The correlation test between the dependent variable, demand for affordable housing, and the independent variable, income threshold, is shown in Table 4. Because both of the variables are not normally distributed, the Spearman's correlation test is used. According to the table, the correlation between the two variables is 0.331, which is deemed a moderate positive correlation by the rule of thumb. This means that the income level affects the demand for affordable housing by around 33.1 percent, while the other 60 percent is determined by other factors. These two variables have a significant value of 0.000, which is less than 0.01. This suggests that there is a strong link between the income level and the need for affordable housing. As a result, the study's initial hypothesis (H1), that there is a relationship between the income criterion and the demand for affordable housing, is accepted.

This is because there is sufficient evidence to imply that there is a correlation between these two variables.

Table 4: Relationship between Income Treshold and the Demand of Affordable Housing

	Correlation		Living area of respondents	Affordable housing are preferable
Spearman's rho	Income treshold of respondents	Correlation Coefficient	1.000	.331
		Sig. (2-tailed)	.000	.000
		N	34	34
	Affordable housing are preferable	Correlation Coefficient	.410	1.000
		Sig. (2-tailed)	.000	.000
		N	34	34

According to the findings, the first objectives of this research is fully achieved in which the researchertends to investigate the relationship between the income threshold and the demand of affordable housing. Through the journey of investigating this independent variable, the researcher finally found out that the demand toward affordable houses are affected by income threshold. The respondents incomethreshold are influencing the respondents decision to buy a house as stated in previous study by Suraya(2019), where financial stability were a vital factor in influencing someone's decision in buying a house.This supports the correlation between the hypothesis and th subject of this research.

4.7 Relationship Between Location Preference and the Demand of Affordable Housing

The correlation test between the dependent variable, demand for affordable housing, and the independent variable, site choice, is shown in Table 5. Because both of the variables are not normally distributed, the Spearman's correlation test is used. According to the table, the correlation between the two variables is 0.410, which is deemed a moderate positive correlation by therule of thumb. This means that location preference affects the demand for affordable housing by around41%, while the remaining 50% is determined by other factors. These two variables have a significant value of 0.000, which is less than 0.01. This suggests that there is a strong link between site preferencesand the demand for affordable homes. As a result, the study's second hypothesis (H2), stating that thereis a relationship between location preference and the demand for affordable housing, is accepted. This is because there is sufficient evidence to imply that there is a correlation between these two variables.

Table 5: Relationship between Location Preference and the Demand of Affordable Housing

	Correlation		Living area of respondents	Affordable housing are preferable
Spearman's rho	Living area of respondents	Correlation Coefficient	1.000	.410
		Sig. (2-tailed)	.000	.000
		N	34	34
	Affordable housing are preferable	Correlation Coefficient	.410	1.000
		Sig. (2-tailed)	.000	.000
		N	34	34

Conferring to the findings, the second objectives of this research is fully achieved in which the researcher tends to investigate the relationship between the location preference and the demand of affordable housing. Through the journey of investigating this independent variable, the researcher finally found out that the demand toward affordable houses are affected by location preference. Based

on the study conducted by Hamidi *et al.* (2016), they suggest that location is a factor that are mostly considered when choosing a housing and are the main aspect when considering for affordable housing. This bolsters the link between the hypothesis and the subject of this study.

Finally, the researcher analyses the data from the respondents using the Statistical Package for the Social Science (SPSS) software to meet the study's objectives and hypotheses. The independent variables in the study are income threshold and location choice, while the dependent variable is the demand for affordable housing. As the researcher works through the SPSS software, it becomes evident that both independent variables are related to the dependent variable. This shows that the researcher met the study's aims and that all hypotheses were accepted.

5.   Conclusion

This research has been carried out to see how far the factors truly affects the demand of affordable housing in Negeri Sembilan. This research has accomplished its objectives. And through this research, the researcher was more equipped with knowledge about the demand of affordable housing in Negeri Sembilan. The analysis from Statistical Package for the Social Sciences (SPSS) has presented the outcome from the colledted data using method such as factor analysis, reliability test, normality test and corellation coeeficient test. The software has helped in the outcome of the research by providing the statostocs that is sufficient to prove the hyphotheses created to compensate with the subject. Throughout carrying this research, the researcher has improved the understanding about the subject that is carrying a huge impact on the housing sector in Negeri Sembilan and by carrying statistical computation with the data received, It allows the researcher to provide more information about the related subject to the public.

Acknowledgement

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