

**SECURE AND AFFORDABLE STRATIFIED  
HOUSING CRITERIA MODEL IN MALAYSIA**

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**2023**

**SECURE AND AFFORDABLE STRATIFIED  
HOUSING CRITERIA MODEL IN MALAYSIA**

by

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**Thesis submitted in fulfilment of the requirements  
for the degree of  
Doctor of Philosophy**

**January 2023**

## **ACKNOWLEDGEMENT**

I would like to express my gratitude to my primary supervisor Dr. Radzi bin Ismail and co-supervisor Associate Professor Dr. Mohd Wira Mohd Shafiei, who patiently guided me throughout writing this thesis and through the entirety of my Ph.D's journey. Both have provided encouragement, advice, and support throughout my thesis research. Besides, I would like to thank those who have helped me answer my research questionnaire and gave me advice and helped in my research. This thesis could not be completed on time without their help and guidance. Furthermore, a special gratitude goes out to my beloved parents, family members, and friends around me for their continuous support, strength, and help during my Ph.D's study. Their confidence in me is always the source of motivation and enthusiasm to accomplish this research. Last but not least, I would like to give the warmest thanks to Dr. Khoo Terh Jing for his positive supports and help along my Ph.D's journey. He gave me his patience and encouragement during the thesis writing process. He led me when there was mist and gave advice when the path was not clear. Finally, this thesis is dedicated to those directly and indirectly contributed to this research.

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## LIST OF ABBREVIATIONS

AVE	Average variance extracted
BQA	Building Quality Assessment
CCTV	Closed-circuit television
CPTED	Crime Prevention through Environmental Design
DOSH	Department of Statistic Malaysia
DRMM	Dasar Perumahan Mampu Milik
GoF	Goodness-of-fit Index
HOC	Homeownership Campaign
IPMA	Importance-Performance Map Analysis
JMB	Joint Management Body
LPHS	Lembaga Perumahan Dan Hartanah Selangor
REHDA	Real Estate and Housing Developers' Association Malaysia
$RMS_{theta}$	Root Mean Square Residual Covariance
SOC	Sense of Community
SRMR	Standardized Root Mean Square Residual
VIF	Variance inflation factor

# **MODEL KRITERIA KESELAMATAN DAN RUMAH MAMPU MILIK BERSTRATA DI MALAYSIA**

## **ABSTRAK**

Golongan pendapatan menengah merupakan salah satu kumpulan terbesar di Malaysia. Permintaan terhadap rumah mampu milik berstrata semakin meningkat sebab keperluan asas manusia untuk kediaman. Selain itu, tahap keselamatan dalam kawasan perumahan mendapat perhatian daripada golongan pembeli rumah. Oleh itu, kajian ini bertujuan untuk mengenal pasti kriteria keselamatan yang perlu ditekan dan dilaksana oleh rumah mampu milik berstrata untuk meningkatkan tahap keselamatan dan mengekalkan harga berpatutan yang mampu dimiliki golongan pendapatan menengah atau dikenali sebagai M40. Kajian ini fokus kepada golongan pendapatan menengah atau dikenali sebagai M40 dalam Malaysia. Oleh itu, cara kuantitatif digunakan dalam penyelidikan ini dengan 300 responden. Hasil kajian ini menunjukkan enam kriteria keselamatan termasuk pengawasan, pengawalan pintu, sempadan, penambahbaikan perlindungan, semangat bermasyarakat dan pengurusan dan penyelenggaraan mempunyai impak yang ketara. Di samping itu, kesan moderasi dengan campur tangan kerajaan antara pelaksanaan kriteria keselamatan dan rumah mampu milik boleh memperkasakan impak kriteria keselamatan dalam tahap keselamatan perumahan. Kajian ini menghasilkan sebuah kerangka konsepsi untuk rujukan pengamal industri dalam industri pembinaan. Implikasi praktikal masa depan dan kesimpulan yang dibincangkan dalam tesis ini untuk memudahkan pelaksanaan kriteria keselamatan dalam rumah mampu milik dalam industri perumahan Malaysia.

# **SECURE AND AFFORDABLE STRATIFIED HOUSING CRITERIA MODEL IN MALAYSIA.**

## **ABSTRACT**

The middle-income group occupies most of the total population in Malaysia. The demand towards affordable stratified houses was increasing due to the basic needs for shelter. Besides, the security level in housing areas is getting attention from house buyers when surveying homes. Therefore, this study was intended to identify the security criteria that should be emphasized and implemented in affordable stratified housing, which can improve the security level and maintain the affordability of the middle-income group or M40 group at the same time. Since this research study was focusing on the M40 group in Malaysia, thus, a quantitative method was employed to carry out the research and there are 300 respondents involved in this research. Moreover, the findings of study showed that the six security criteria which are surveillance, access control, territoriality, target hardening, sense of community and management and maintenance were significantly impacted affordable secure homes. Furthermore, the moderation effect of government intervention between security criteria implementation and affordable secure homes can enhance the effects of security criteria on the housing security level. Therefore, this research has developed a conceptual framework for the construction industry as a practitioners' reference. In a nutshell, future practical implications and conclusions were provided to facilitate the implementation of security criteria in affordable housing development in the Malaysia housing market.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter discusses the research background and issue statement that will be addressed in this study. Research questions and research objectives are also listed in this chapter. There is also a general explanation about the scope of research and research methodology to be used in this thesis.

### **1.2 Research Background**

Malaysia is a developing country that has rapidly developed over the last two decades, and this has caused more demands on housings as citizens' shelter. The population of Malaysia is increasing 28.6 million in 2010 to 32.7 million in 2021 and the demands toward housing in Malaysia are increasing due to the increased population (Sharulnizam & Radzuan, 2022). However, as the rapid development is going on, the demands and welfares of the low- and middle-income group should not be neglected. Their demand for affordable houses is growing every year due to the standard of living increasing every year.

In fact, most Malaysians are unable to purchase high-priced properties since the wealth gap between affluent and poor is widening because of rising income inequality. According to Elhai et al. (2017), The wealthy are becoming wealthier, while the poor are becoming poorer, and this situation is raising concerns among majority of Malaysians. Besides, the house price in Malaysia is getting more expensive, and this phenomenon has resulting in the incapability of the poor to own their houses. This might be due to the rapid inflation on the economy that caused the



value of money dropped over the time, where the purchasing power of citizens is dropping.

Housing is a fundamental human need since it provides not just physical shelter but also protection, welfare, communal connection, and the accumulation of wealth for investment. As a result, a person's primary goal in life is to buy a home. There is a vast amount of housing development in Malaysia to fulfil the demands of houses such as affordable houses, medium-cost houses, and high-cost houses. Affordable housing occupies the majority of housing in Malaysia to fulfil the needs of middle-income groups as they are unable to afford huge house loan burden (Azizah Ismail et al., 2016).

Since the 1970s, Malaysia has seen a substantial population increase. This is mostly due to its urban and industrial growth, which encourage people to migrate from other states. As a result, residential properties in Malaysia are seeing considerable price increases in states like Kuala Lumpur, Johor, and Pulau Pinang, which are growing at faster rates than the rest of the country. Therefore, it is in urge that affordable houses need to be provided to the M40 group in Malaysia (Sharulnizam & Radzuan, 2022; Zairul, 2019).

Moreover, it is proven that the housing market has not been provided with an adequate supply of affordable housing for the middle-income households in Malaysia especially in Kuala Lumpur, Penang and Johor (Ling & Almeida, 2016). According to Liu and Ong (2021), the expanding household size, population growth, and urban migration have created an increasing demand for affordable housing. Although Federal and State Governments have supply affordable housing, the current level of affordable housing is still insufficient to meet the demand of M40 group (Ling & Almeida, 2016; Sharulnizam & Radzuan, 2022).

In this case, the government has responsibility in providing housings to all citizens. This can be accomplished through the implementation of policies and housing programs. As a developing country, Malaysia plays a critical role in providing affordable housing to society, and it has become one of the country's top priorities. Therefore, affordable housing programs have been introduced by government to reduce house prices on a national level. The Malaysia Plans, as well as the longer-term Outline Perspective Plans, incorporate housing policy (1991-2000). The National Homes Policy was implemented by the government in 2011 to encourage the construction of affordable houses.

Although these policies have helped increase the affordable housings quantity, many issues happen in affordable housing areas, raising house buyers' concerns about their quality of life after staying in affordable housing. Recently, security issues have become a problem, which has brought negative impacts to the living environment of residents. Malaysia government has tried to control this situation and strengthen the police force-related methods to combat the problem but crime rate is still increasing where this leads to the increase of fear of crime among residents (Marzbali et al., 2012). The crimes that occurred not only affect their life but reflects the security issue in affordable housing area. Thus, security features are important to act as the tools to reduce crime rate within residential area.

According to Maslow (1943), security needs are at the second tier after the physiological needs. Security needs are considered as the basic needs to protect occupants from any threats and risks. The design of housing, arrangement of walkway and streets, security features, and the public space will influence the opportunities for criminals (Marzbali et al., 2012). To improve the living environment, security criteria are needed in housing area such as surveillance, access control, territoriality, target

hardening, sense of community, management and maintenance (Armitage, 2018). These security criteria should not only install in luxury houses but also in affordable housing to improve the security level and living quality of middle-income group.

To conclude, due to the demand of affordable housings is hiking, government has constructed more affordable house to fulfil the demand. However, security issues have become the problem of affordable housings. Thus, implementing the security criteria is the most appropriate solution to improve security level in affordable housing area. The combination of security features such as surveillance, access control, territoriality, target hardening, sense of community, management and maintenance can produce a much more effective crime prevention in the housing area (Armitage, 2018; Armitage et al., 2011). Besides, government interventions and regulations are important to ensure the security criteria are installed in affordable housing while control the property price to help M40 group in owning houses within their affordability.

### **1.3 Problem Statement**

Crimes are the social problems that have affected people's living environment. Currently, there are many issues involving affordable housings in urban area such as there were 6 break-ins recorded within 3 weeks in a gated and guarded community in Wangsa Baiduri, Subang Jaya (Mohit, 2012). Moreover, there is another similar security issue occurred in Taman Melati Kuala Lumpur. According to Mohit and Elsayahli (2017), Taman Melati has high density of population and this led to the social problems and security issues in this housing area. These cases have shaken the Malaysians on the safety and security level in affordable housing area where the house buyers feel worried about this issue.

As mentioned by Said and Juanil (2013), the safety and security level, which can create an eminence environment, is the first source of concern among house buyers when it comes to housing preferences. However, according to Statistic Malaysia (2019), house break-ins and theft, vehicle theft, snatch theft, and other thefts account for 71,760 occurrences of property crime. The fear of crime has grown and the residents feel worried about their living quality and personal safety when the affordable housing area is full of criminal cases (OSAC, 2019; Tedong et al., 2015). The increase of household crime caused the potential buyers and residents hesitate and unsatisfied to buy and live in the affordable housing area.

Furthermore, there is lacking of research that prioritized the security issues as the main aspect in affordable housing (Husin et al., 2018). Most of the researches such as Lee et al. (2016), Seifi, Haron, Abdullah, Masron, et al. (2020) and Abdullah et al. (2013) were examined the effectiveness of security criteria in luxury houses or landed houses, but the security level in affordable housing has received less attention than it deserves. Besides, previous studies focused on the impact of one or more dimensions of Crime Prevention Through Environmental Design (CPTED), but not all dimensions simultaneously on crime, such as territoriality, access control and surveillance (Abdullah et al., 2013; Amiri et al., 2019; Foster et al., 2010; Marzbali et al., 2016). However, this study was focus on all the dimensions of first and second generation CPTED.

According to Husin et al. (2018), only a few studies have looked into social environment and integration difficulties, including noise, crime, accidents, security, and community relations. Most of the affordable housing area are facing the security issues that have raised concern among residents and house buyers. The criminal rate in affordable housing area is getting higher and this causes the house buyers to step

back from buying the affordable house. In addition, house buyers are not the one who looking for a safe environment, but tenants have the same concern before they decided to rent a house. The demands of house buyers and tenants today is not only a shelter but they also seeking for a secure environment around the house that they like or bought. Therefore, in this study, the security issue has been emphasized to figure out the actual requirement and criteria of Malaysian house buyers towards the affordable housing.

Lastly, the housing price increased significantly and this causing the houses become unaffordable (Soon & Tan, 2019). To mitigate this phenomenon, the opinions of M40 house buyers towards affordable houses with security criteria should be collected to understand their demands and affordability to own a house. Since purchasing a house is extremely financial burdening, especially on the low- and middle-income group, the purchased house must be good in term of quality and security level. Thus, the security criteria and its impacts towards affordable secure homes are important to be identified and investigated in this research study. Based on the justification, this study found the research gap that can be further researched. Figure 1.1 showed the justification of the research problem statements.

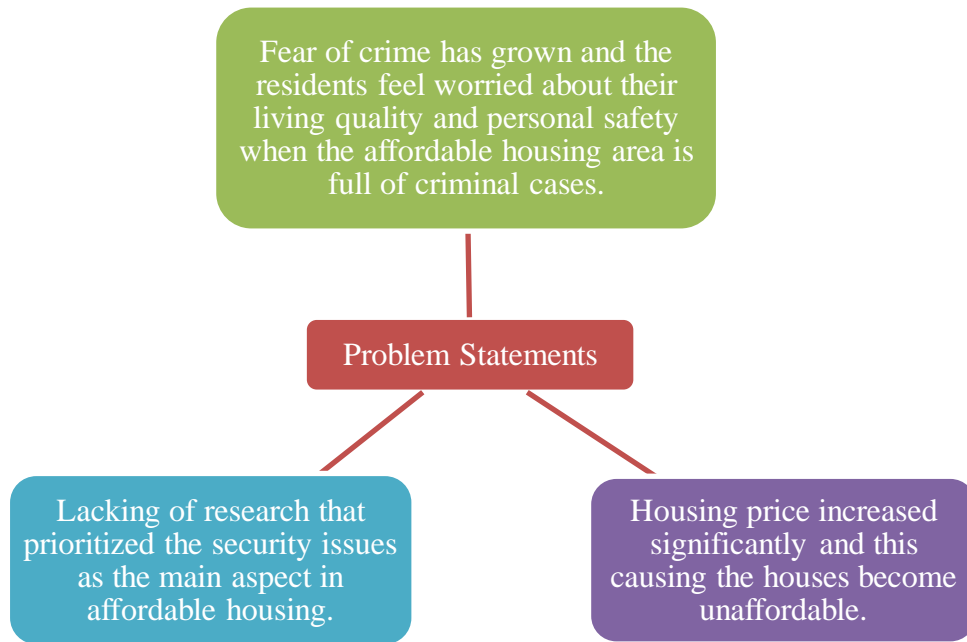


Figure 1.1 Research Problem Statements

#### 1.4 Research Questions

1. What is the relationship between security criteria and the affordable secure homes?
2. What are the impacts of government interventions towards affordable secure homes?
3. Is there a framework for secure affordable housing in Malaysian housing industry?

#### 1.5 Research Objectives

1. To identify the relationship between security criteria and the affordable secure homes.
2. To examine the impacts of government interventions towards affordable secure homes.

3. To propose a framework of secure affordable housing in Malaysia housing industry.

### **1.6 Significant of Study**

Nowadays, the house price is getting more expensive and this phenomenon causing houses are unaffordable by Malaysian especially the young generation. Besides, most of the people prefer to rent than buying a house as they think that buying a house will increase their financial burden. Therefore, affordable housing is a must to resolve this problem. However, affordable does not means that it can be in low quality where the security aspects are ignored as the residents and house buyers are concern about these two aspects before buying a house. Therefore, it is crucial to emphasis these two aspects while constructing the affordable housings.

By conducting this research, demands on security criteria from house buyers can be identified and, thus, provide a platform for future academicians and practitioners to investigate further. The house buyers able to understand the security criteria that they need in affordable houses where the house buyers can set the target house according to the criteria needed. This can prevent the house buyers wasting their time in choosing the house. Moreover, the government can customize policy and housing schemes by understanding the requirements and needs of house buyers toward affordable houses. These policies and housing schemes introduced by government can help in distributing the affordable housing to the medium income group equally.

Therefore, to ensure a better development in secure affordable housing, the construction industry must have a wide understanding about the actual needs of house buyers and cope with this issue to fulfil the house buyers' needs. This further justified the study in secure affordable housing is essential to provide significant benefits to the

house buyers. Furthermore, the findings of this study can be employed in the construction sector as a complete guideline for property developers and influential stakeholders, adding to the current body of knowledge and cognition about affordable housing in Malaysia.

### **1.7 Scope of Research**

Since security level is important in affordable housings while the added features should not increase the burden of residents, thus, this research aims to identify the effectiveness of security criteria in Malaysia affordable housing which is affordable and create a conceptual framework of security criteria practices as a guidance to property developers and house buyers. This framework will explain the impact of security criteria toward affordable secure homes while the government's intervention act as the moderator to help executing the security criteria which can improve the security level in housing area, especially in affordable housings.

The present research study focusses on affordable housing in Malaysia. There are many affordable housings exist in Malaysia and its demand is very high in Malaysia residents especially within group M40. The population for this research study includes all the M40 group in Malaysia. The income classification "M40" refers to Malaysians who make RM 4, 851 to RM 10, 959 per month and are the group that benefits least from government health financing programs. Besides, according to Engineer Mohd Zulfadzli Abdul Halim, the M40 group is bearing the brunt of rising living costs without an equal increase in earnings and has not been given a helping hand (Hanif, 2022). According to Roslan et al. (2022), the government should place a greater emphasis on the M40 income group and they should not be excluded from homeownership incentives. With so much emphasis on the B40, the government



should not overlook the needs of the M40 (Roslan et al., 2022). This study's focus is on affordable housing; thus, the findings may not be applicable to other housing types.

According to Shamsuddin and Hussin (2013), crime and the fear of crime among residents have become major problems in societies around the world. Malaysia as one of the most rapidly urbanizing countries where the increasing number criminal issues in urban areas have led to several challenges and difficulties in providing a peaceful and comfortable living environment for Malaysia citizens. The security level of the affordable housing is worrying as developers tend to reduce the security features to maintain its affordability which directly impact the security level (Kang, 2018). This issue should be emphasized as home buyers need not only shelter but also sense of secure (Maslow, 1943). Therefore, it is appropriate to conduct research that related to the security criteria implementation in Malaysia housing market.

The roles of government will be considered in this research study as government intervention is playing an important role in enforcing and promoting security criteria implementation into housing area, especially in affordable housing. The scope of this research is the security criteria that can be adopted in Malaysia's affordable housings to improve the security level while maintaining the affordability of M40 group to purchase the houses.

## **1.8 Research Methodology**

Primary data and secondary data will be collected in this research. Secondary data will be acquired through a review of related literature, which will comprise discovering, identifying, and assessing materials that give information relevant to the research objectives (Gay, 2006). Secondary data has the most significant advantages in terms of time and cost. Secondary data is less expensive to obtain compared to

primary data, which consists of information released by government authorities and agencies on an annual, semi-annual, and quarterly basis. Articles, journals, reports, abstracts, newspapers, magazines, published texts or statistics, organizational records, local or international conference proceedings, and websites are all examples of secondary data (Gay, 2006).

Then, based on the secondary data, primary data will be collected via a questionnaire that will be delivered to respondents who are qualified to answer the study questions. Nowadays, many people from middle-income families and youngsters who just started their careers are unable to purchase their own shelters due to the high living expenses, thus, affordable housing are their only option. Therefore, the house buyers from M40 income group and residents of affordable housing will be chosen as the respondents of this research.

After that, based on a review of current literature, a structured questionnaire will be designed to confirm the reliability of the data collected from papers retrieved from credible sources such as Proquest, Science Direct, and Emerald Insight (Michel et al., 2011). The developed questionnaire will be used to collect data on the security criteria and affordable secure homes where these data will be analyzed by using of IBS SPSS Statistics and SmartPLS 3 computer software. First, description analysis will be used to analyze the security criteria and affordable secure homes' constructs to get the range, variance, and standard deviation of the impact of security criteria on affordable secure homes.

Finally, the correlations between independent and dependent constructs will be examined using the Partial Least Squares – Structural Equation Modelling (PLS-SEM) analysis approach to confirm the data's trustworthiness (Hair et al., 2017; Hair et al., 2017). PLS-SEM will run several tests to measure the reliability such as Variance

Inflation Factor (VIF), outer weights and T-statistics. Lastly, a new comprehensive framework will be shown based on the findings that calculated by the SmartPLS 3 software to understand the relationship between the security criteria implementation and Malaysia affordable housing.

## **1.9 Thesis Outline**

This section describes the flow of the conducted study by providing an outline of the chapters of this thesis. This thesis is divided into six chapters, each of which is summarized below.

**Chapter One:** Introduction, research background, problem statement, research question, research purpose, study importance, scope of research, research technique, and thesis outline are all included.

**Chapter Two:** The literature of security criteria, government intervention and affordable secure homes are showed in this chapter. The impact of security criteria towards affordable secure homes are explained. The impact of government intervention is also discussed in this chapter.

**Chapter Three:** This chapter discusses research methodology. This chapter discusses the research design, data collection method, sample selection, questionnaire preparation, pilot test, data gathering technique, and data analysis method, which is the PLS-SEM analysis method.

**Chapter Four:** The results and analysis of the data acquired using the quantitative research approach are presented in Chapter Four. Descriptive analysis and PLS-SEM analysis method are used for the data analysis.

**Chapter Five:** The findings of this research study on the impacts of security criteria toward affordable secure homes with the moderation effects of government intervention are discussed in this chapter.

**Chapter Six:** Conclusion and limitations are showed in this chapter. This chapter also contains suggestions for future research. The contributions of this research study toward academic and industry are discussed.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter explores the security criteria that can be implemented in Malaysia affordable housing and their impacts on the affordable secure homes. In addition, the government's involvement is explored in this chapter. The construction of a conceptual framework is then described in this chapter, which can be utilized to help readers understand the research constructs.

#### **2.2 Operational Definition**

Safe and secure can be used as synonyms as these two words can be understood as the protection from any threats and dangers. However, there are still differences between safe and secure and cannot simply be used interchangeably. To be precise, safe refers to the protection from accidents and mishaps while secure refers to the protection from deliberate threats and dangers.

Safety is a feeling of being protected from any threats and harm. According to Health & Safety (2018), safety is always refer to the conditions that are protected from the attitude which can cause harm to someone. On the other hand, safety is important to highlight a person who will has the feeling of being safe if that person can control the risk causing factors. Besides, safety can also be understood as an individual who will feel safer if this individual has the control of the risk causing aspects to protect him from the unintended risk.

According to Bemanian and Mahmoodinezhad (2010), security means to develop an environment of housing area that is free from risks and crimes that can bring benefits to an individual by providing relaxation and mental release in their living area.

Furthermore, security is a feeling that protect an individual from confronting with fear and panic. According to Rahmania and Zarandib (2015), security entails liberty, well-being, and the absence of fear and violation. Security, according to the Oxford dictionary, is described as being in preservation, free of uneasiness, worry, and anxiety.

Health & Safety (2018) mentioned that individuals, organizations, and properties are protected from external dangers and criminal acts, which are defined as premeditated actions that threaten an individual, organization, or assets. Generally, security is to ensure the unwelcome situation and trouble will not cause distress to the organization, individuals, and the properties. The physical barriers like walls, fences and boom gate are defined as the aspects of the security that can protect an individual from external threats and risks (Demkin, 2003).

Secure homes is a universal word that refers to a housing area protected by restricting the access of strangers (Adnan et al., 2014). There are several terms that can be used to replace secure home, these terms are “*gated and guarded communities*”, “*barrios cerrados*”, “*urbanizaciones privadas*”, “*condomínios fechados*”, and “*gated residential communities*” (Ajibola et al., 2011; Atkinson & Blandy, 2005; Bowers & Manzi, 2006; Coy, 2006; Poudier & Clark, 2009). However, there is no specific definition to explain the concept of secure homes where there are only several definitions with references from different researchers.

According to Blakely and Snyder (1999) and Azman et al. (2018), the synonym definition of secure home can be referred to gated communities while Salleh et al. (2022) defined secure home as “the residential area that was fenced up and privatized to restrict the access of stranger”. Besides, secure homes can be referred as the residential area that fenced up or walled off around the building which can prohibit and limit the public access to these areas (Landman, 2000; Shamsudin, Zainal, et al., 2017).

Hanif et al. (2012) and Kaushik (2019) mentioned that residents or communities residing in an area with barriers to provide a sense of safety and security for residents or communities, whether in a high-rise property residential structure or in a landed property residential region, are said to be living in a secure house. Table 2.1 summarized various definitions of secure home from Malaysia and other countries.

Table 2.1 Various Definition of Secure home

Author (year), country	Definition
Landman (2000), Makinde (2020), Karahana (2022) South Africa	Secure home refers to a physical area that is fenced or walled off from its surroundings, either prohibiting or controlling access to this area by means of gates or booms.
Grant and Mittelsteadt (2004), Bint-e-Waheed and Nadeem (2020), Li et al. (2022) Canada	Secure home is a housing development on a private road closed to general traffic by a gate across the primary access. The developments maybe surrounded by fences, walls, or other natural barriers that further limit public access.
MacLeod (2004) United Kingdom	Secure home are residential areas with restricted access where normally public spaces are privatized and are typically advertised as a ‘community’ where residents own or control common areas, shared facilities and amenities while simultaneously having reciprocal rights and obligations enforced by a private governing body.
Atkinson and Blandy (2005), Hamama and Liu (2020) United Kingdom	Walled or fenced housing developments, to which public access is restricted, characterized by legal agreements which tie the residents to a common code of conduct and (usually) collective responsibility for management.
Baycan-Levent and Gulumser (2005) Turkey	Secure home are physical private areas with prohibited access and directed with special rules where outsiders and insiders exist.
Sanchez et al. (2005) United States	Exclusive developments with fancy homes and equally fancy lifestyles. At the gates stand guards who screen all non-residents or the uninvited.
Bowers and Manzi (2006), Ginting and Sakinah (2018) United Kingdom	Gated Residential Developments (GRDs) are generally defined as master planned neighborhoods that have been constructed with a boundary fence or wall, which separates them from their environs.
Quintal (2006) Australia	Secure home are residential developments characterized by a focus on physical security measures such as gates, walls, guards and closed-circuit television cameras.
Ajibola et al. (2011), Ergun and Kulkul (2019) Nigeria	Secure home are residential areas with restricted access designed to privatize normally public spaces.

Table 2.1 (Continued)

Author (year), country	Definition
Mahgoub and Khalfani (2012) Qatar	Secure home is a form of residential community or housing estate containing strictly controlled entrances for pedestrians, bicycles, and automobiles, and often characterized by a closed perimeter walls and fences. It usually consists of small residential streets and include various shared amenities; it may be possible for residents to stay within the community for most day-to-day activities.
Osman et al. (2011)	Secure home is commonly identified with a cluster of houses surrounded by fence with controlled access.
Mohd Suhaimi (2010)	Secure home generally refers to housing developments where access to the neighborhoods is restricted to the residents.
Perancangan (2010)	Group of communities or residents living in a gated and guarded area of high-rise property such as apartment, condominium and town-house or landed property such as bungalow, terrace, and semi-detached houses. However, definition of Secure home is more concentrated on residents living on strata title landed property residential area.
Mutalib et al. (2012)	Secure home in Malaysia generally refers to a residential community with secured, gated, and guarded surroundings. It can be a building (condominium usually) or a cluster of houses (a certain housing scheme, a 'taman') which is surrounded by a fence or wall on a perimeter, with access being limited and controlled with certain security measures such as guards, surveillance patrol and 24/7 CCTV or surveillance.
Sakip and Abdullah (2012)	Gated residential areas as residential areas that are fenced around their individual lots with no ingress and egress control within the larger housing area in concern. Ingress and egress control is only localized within the individual lots, typically using fencing elements and/or combined with additional security systems such as a closed-circuit television (CCTV) system, guard dogs and others.

Based on the definitions stated above, therefore, definition of secure home in this research can be defined as a residential building that is protected by physical barriers to avoid any intended risk and threaten that will harm the residents. Residents can enjoy the freedom from fear, anxiety, and danger in their housing area.



### **2.3 Overview of Affordable Housing in Malaysia**

The concept of affordable housing is to solve the low- and medium-income people with housing problems around the world (Olanrewaju & Woon, 2017). The price of affordable housing must be controlled to ensure it is affordable to those low and middle incomers. The basic principle of affordable housing is the same as it is considered if the homebuyer will not spend more than 30 per cent of their household income for the housing loan or rental (Olanrewaju et al., 2016). However, the price of land, construction material and machinery are hiking which lead to property developers have no choice but to compromise in term of the security criteria or quality to keep the price affordable.

Affordable housing is comparatively complex to understand and explain due to the term is often used to represent all types of housings developed by governments (Olanrewaju & Idrus, 2019). There are many researchers have defined affordable housing as low-cost housing, public housing, or social housing (Arman et al., 2009; Gan et al., 2017; Wallbaum et al., 2012). In this study, affordable housing is defined as the median-priced houses. They are the houses for those in the middle-income group. Those that earn a median income are the typical households that live in a median priced home.

#### **2.3.1 Evolution of Affordable Housing**

For more than 50 years, Malaysia has been creating affordable homes. From the Colonial Administration and Pre-Independence (1950-1954) to the Eleventh Malaysia Plan, there has been a lot of change in Malaysia (2000-2020), the problem has been how many affordable housing units should be created in each 5-year plan period to provide inexpensive housing to the nation.

Malaysia government has put efforts on improving housing affordability of middle-income group. Malaysia Plan has set the goal of accelerating the supplies of affordable housing and implementation of housing programs. In the early stage, Malaysia government only focus on the public housing for public employee and the private sector do not provide affordable housing. Then, government started to concern about the financing issue of lower income group by providing affordable housing. Government also encourages the private sector to provide affordable housing for middle-income group.

After that, government started to launch financing scheme and control the price of affordable housing to reduce the financial burden of low- and middle-income group in purchasing houses. In addition, government has also promoted housing scheme and introduced new price for affordable housing. Finally, the housing quality has been emphasized by people. Therefore, the public and private sector started to enforce property developer to improve the housing quality and security level in housing area.

Table 2.2 below shows the policy attentions and evolutions of affordable housing in Malaysia.

Table 2.2 Policy Attention and Evolution of Affordable Housing in Malaysia

Plan Period	Policy Attention for Affordable housing
Colonial administration and pre independence (1950-1954)	Housing policy was ‘ad hoc in nature’ under ‘divide and rule’ policy by British Government. Affordable housing has been developed in Malaysia since 1950 when Housing Trust was given the responsibility by British government to launch the development of rural public affordable housing (Endan, 1984). During Colonial Administration and Pre Independence Period (1950-1954) it was realized that 30,000 units of were required yearly for the country and 95 per cent should be for the low-income group. Yusoff (1993) cited that only 1,058 units were planned for this group but only 311 units were completed. The reasons for the poor performance were financial constraint, lack of manpower and ineffective implementation of enactments and regulation for planning and building. There was no proper ministry to coordinate the housing activities.

<p>First and Secondary Five-Year Malaya Plan (1956-1965)</p>	<p>Housing policy was very 'general in nature', i.e. "...to assist in large measure in the provision of housing and to provide more adequately for rural and urban utilities" A total of 8,938 affordable houses out of 425,876 housing units was completed during this period (Yusoff, 1993). Affordable housing was given a lower priority than public employee housing. Private sector did not supply affordable housing in this period. Ministry of Housing and Local Government (MHLG) was set up in 1964 and facilitated better functioning of the Housing Trust.</p>
<p>First Malaysia Plan (1964-1970)</p>	<p>Affordable housing is one of the major efforts of the government to promote the welfare of the lower income groups (Endan, 1984). Government, for the first time, was coaxing the private sector to complement the public sector in its effort to provide affordable housing. Government mentioned that it will give encouragement and assistance to private developers to provide affordable housing (Yusoff, 1993). Government's intervention in the housing market in this period was also started to focus on affordable housing to meet the needs of the poor especially the Malays which are considered as Bumiputera (indigenous people of Malaysia). Government stipulated several eligibility requirements for its affordable houses. The applicant must be a Malaysian citizen; 21 years old or older; have stayed for a certain minimum number of years where the houses are to be built. The applicant family income must do not exceeded RM300 per month (Endan, 1984; Yusoff, 1993). Housing Trust has delivered 21, 700 units of affordable housing out of 30, 000 targeted units.</p>
<p>Second Malaysia Plan (1971-1975)</p>	<p>Housing Trust was dissolved in 1972 and replaced by National Housing Department in delivering affordable housing (Endan, 1984). 'Core Housing' concept has introduced to provide very basic shelter for lower income families and allowing them to expand and improve their housing as their economic condition improve (Yusoff, 1993). Government introduced a quota system in housing development which is at least 30 per cent of houses to be built were allocated to Bumiputera (Agus, 1997). The effect of May 13<sup>th</sup> incident, the reduced role of the Housing Trust, the lack of labor and the inflation/stagflation caused by the world economic disorder during this period rendered the stated incapable of meeting target of 26, 241 units of affordable housing set for this period (Endan, 1984). At the end of 1975 only 13, 244 units or 50.5 per cent of the target were completed. The target groups for affordable housing were defined as households earning less that RM500 per month in Peninsular Malaysia.</p>
<p>Third Malaysia Plan (1976-1980)</p>	<p>The aim of the housing policy during this plan was specifically to ensure that all Malaysians, in particular the lower income groups, have access to adequate housing. The</p>

Table 2.2 (Continued)

Plan Period	Policy Attention for Affordable housing
	<p>thrust of the efforts of public housing program was to bring housing within then financial means of the poor (Yusoff, 1993). Public sector developers developed 26, 250 units of affordable housing, but there is no precise information mentioned about the affordable housing unit delivered by private developers. Private developers were expected to cater to the middle- and higher-income groups but were encouraged to build affordable housing houses either on their own or through joint ventures with public housing agencies. Government launched a financing scheme through Malaysia Building Society Bhd (MBSB) for houses costing below RM20, 000 as affordable housing units. Housing Developers Association (HAD) established a housing company, HDA Perumahan Berhad, with the sole objective of building private affordable housing.</p>
<p>Fourth Malaysia Plan (1981-1985)</p>	<p>Government required private developers to ensure that 30-50 per cent of the units in all proposed housing projects be affordable housing priced at RM25, 000. Affordable</p>
	<p>housing units under this scheme were started to be rented for a minimum period 10 years, with option to purchase at the end of the period. However, private sector has often been stigmatized as a body which perpetuated only the interest of the middle and upper classes, and its own profit maximization motives in its endeavors (Agus, 1997). Government implemented concept of affordable housing incorporating the following characteristics 1) Selling price: not exceeding RM25, 000 per unit; 2) Target groups: households with a monthly income not exceeding RM750; 3) House type: flats, single story terrace or detached houses, a living room, a kitchen a bathroom-cum-toilet (Agus, 1997). However, overall responsibility for the affordable housing program is vested with the Ministry of Housing and Local Government (MHLG) (Monerasinghe, 1985). The actual performance of affordable housing delivered by public and private sector developers were 72, 302 and 22, 794 units respectively.</p>
<p>Fifth Malaysia Plan (1986-1990)</p>	<p>Housing programs began to be implemented along the concept of human settlement. The provision of social facilities such as schools, clinics and community halls were emphasized alongside the provision of housing. The implementation of this development concept was accepted gradually by public sector and later continued by private sector developers (Agus, 1997). Housing schemes delivered by public and private sector developers included public affordable housing scheme. The actual completed affordable housing units delivered by public and private sector developers were 26, 172 and 88, 877 respectively.</p>

Table 2.2 (Continued)

Plan Period	Policy Attention for Affordable housing
Sixth Malaysia Plan (1990-1995)	One of the strategies is to build enough low and low medium cost houses where the housing shortage is acute. Strategies have been formulated to enable accessibility of the low-income groups to house in the country. Government emphasized subsidies in mixed developments and intensifying research and development activities. affordable housing schemes delivered by public sectors during this period included Public Affordable housing (PAFFORDABLE HOUSING). Private sector has delivered Special Affordable housing Program (SAFFORDABLE HOUSINGP). 573, 000 housing units have been planned to be delivered by both public and private sectors with greater emphasis placed on the construction of affordable units. 60 per cent of the total housing targets constitute affordable units which includes 40, 000 affordable housing units from public sector and 215, 700 by private sector developers. However, the actual completed affordable housing units delivered by public and private developers during this period were 15, 376 and 212, 003 respectively (National Housing Department, 2002).
Seventh Malaysia Plan (1996-2000)	The public sector, targeted to build 60, 000 units for affordable housing, completed 60, 999 units or 107.1 per cent of the target. Private sector developers been targeted to deliver 140, 000 but they only completed 129, 598 units or 92.6 per cent of affordable housing (Eight Malaysia Plan, 2001). Government launched several strategies to accelerate the implementation of housing programs such as Affordable housing Revolving Fund (AFFORDABLE HOUSINGRF) to private sector, the establishment of Syarikat Perumahan Negara Malaysia Berhad – Malaysia National Housing Company Limited (SPNB) in 1997 and the introduction of a new pricing scheme for Affordable housing units. SPNB is given the responsibility of coordinating and implementing all affordable housing funds on behalf the public sector. At the same time, SPNB was also responsible to address the problem of abandoned housing projects. Government has introduced the new price of affordable houses ranging from RM25, 000 to RM42, 000 depending on the location and type of houses in years 1998 (Sulaiman et al., 2005).
Eighth Malaysia Plan (2001-2005)	At the end of the review period in year 2003, it showed about 53, 749 units out of 192, 000 targeted affordable housing units were completed by public sector developers. Private sector developers developed 54, 727 units of affordable housing out of 40, 000 targeted units. The achievement by public sector was lower than target mainly due to the delay in possession of site as a result of difficulties in identifying suitable sites and the resettlement

Table 2.2 (Continued)

Plan Period	Policy Attention for Affordable housing
	<p>of squatters (Sulaiman et al., 2005). The main legislation governing housing industry, the Housing Developers (Control and Licensing) Act, 1966 was amended in 2002 to provide for better protection of both house buyers and developers as well as to ensure proper and healthy development of the housing industry. This act was renamed the Housing Development (Control and Licensing) Act/ 1996. In addition, the amendment gave emphasis to quality control, timely completion of housing projects and provided for the establishment of the Tribunal for Homebuyer Claims (Sulaiman et al., 2005).</p>
<p>Ninth Malaysia Plan (2006-2010)</p>	<p>The Ninth Malaysia Plan was tabled on 31<sup>st</sup> March 2006 by Prime Minister Abdullah Badawi. The total budget for the Ninth Malaysia Plan is RM220, 000 million, while 30% of its projects are reported to have been completed, the remaining to be achieved by 2010. The Government has put an objective of “providing of quality housing and urban service”. There are five thrusts of the Ninth Malaysia Plan which are i. to move the economy up the value chain: ii. To raise the capacity for knowledge and innovation and nurture ‘first class mentality’; iii. to address persistent socio-economic inequalities constructively &amp; productively; iv. to improve the standard and sustainability of quality of life; v. to strengthen the institutional and implementation capacity</p>
<p>Tenth Malaysia Plan (2011-2015)</p>	<p>Tenth Malaysia Plan (2011-2015) launched on 10<sup>th</sup> June 2010. The Tenth Malaysia Plan is widely expected to contain new policy directions, strategies and programs all targeted at enabling Malaysia to emerge as a high-income nation. There are five strategic basics under the Tenth Malaysia Plan which are i. increase the value in country economy; ii. improve knowledge abilities and innovation and inculcate first-world minded; iii. handle continuously socioeconomic inequalities; iv. improve level and ability of living quality; iv. strengthen the institution and country’s implementation.</p>
<p>Eleventh Malaysia Plan (2016-2020)</p>	<p>The Eleventh Malaysia Plan (2016-2020) focuses on reducing crime under the Government Transformation Program (GTP). A Safe city program is given priority to implement as outlined in Focus Area C: Chapter 14 Improving People’s Well-Being: Creating Safer Environment for a sustainable and peaceful community. 3 Strategies and 15 steps have been re-introduced. The 3 strategies are: (1) Strategy 1: Environmental Design Initiatives, (2) Strategy 2: Target Hardening, and (3) Strategy 3: Management and Community.</p>

### **2.3.2 Housing Affordability in Malaysian Housing Market**

According to Robinson et al. (2006), housing affordability can be distributed into renters' affordability and house buyers' affordability. Bertaud (2018) said that *"Affordability can be viewed of as a continuum, which is a relationship between income and comparable prices in and of itself."* Sahib (2015) mentioned that *"affordability defined by the relationship between household income and expenditure."* Affordability can be defined as the house buyers' ability to pay the loan instalment for the housing price. Affordable housing concept refers to the amount that need to be paid for the house while other household expenditures are still in the range that does not burden the house buyers (Bujang et al., 2015).

The housing prices is rising every year, and this has become the main issue in these few years. The property prices have been rising in these few years but the increment of salary among Malaysians is comparatively low. This has led to the increase on the unaffordability issue among house buyers in purchasing a house. Median multiple index can be used to calculate the housing affordability rating of Malaysian and the result had been above 3.0 threshold for housing affordability from 2010 to 2020 (Khazanah Research Institute, 2019). This mean the housing price in Malaysia is not affordable anymore. The table below show the median multiple index and it is considered unaffordable by house buyers if the index is above 3.0 (Khazanah Research Institute, 2015).