Homeownership Gaps among the Middle Income Group in Malaysia

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Abstract

Housing is one of the basic human needs as mention in the popular Hierarchy of Human Needs from Maslows's Theory of Human Motivation. Ever since Malaysia achieved independence, the Malaysian housing policy has focused on efforts to provide housing for citizens in the low-income group in Malaysia. However, in pursuing a free-market approach, the government has given the responsibility of providing affordable housing for the middle-income group to the private sector. After many years, statistics show that affordable housing for the middle-income group in Malaysia has been increasing in price at a rate that outpaces the increase of household income, making the houses unaffordable to the middle-income group. To make things worse, the home loan default rate among Malaysian house buyers has prompted the Banks in Malaysia to tighten their terms of house loan eligibility. Thus, homeownership rates decreased; the dramatic gaps in homeownership rates have been documented over the last several decades, and even increased somewhat during the decade of the 2000s. This research aims to review the literature on affordable housing, existing homeownership gaps, and financial risk faced by middle-income buyers. The literature review analyzes policy documents, articles, and secondary literature sources related to the current issues discussed in the public domain. The outcome of the analysis is hoped to assist policymakers to formulate better housing policies and highlight the areas where further research is warranted. In conclusion, the suggestions on how to close the homeownership gaps hopefully will highlight the existence of homeownership gaps that warrant further policy research.

Keywords: Homeownership gaps, affordable housing, Middle-income group

■ 1.0 INTRODUCTION

Housing is a fundamental need of each person as stated in Maslow's Hierarchy of Human Needs (Maslow & Lewis, 1987). It plays a big part in the socioeconomic stability of a country and for that reason housing is a valuable asset and has a great impact on societal wellbeing.

The United Nations has also acknowledged housing as a critically important part of the development of a nation. This concern is visibly highlighted in the UN Sustainable Development Goal number 11; Sustainable Cities and Communities, where the first target of the development goal states, "By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums" (SDG, 2018).

Housing affordability is not a unique problem to Malaysia, rather it is a global issue that has affected many countries. It is a great concern to the governments as when housing issues occur in a society, it may lead to other social issues. The housing issue is a social problem with various social, economic and cultural implications (Parrillo, 2002), and it is evident that housing affordability problems affect both low and middle income (Sheldon, 2007).

In Malaysia, the government has formulated many policies to help the low-income group which mainly consists of housing programs with clearly defined terms and specifications to cater only to the low-income group. These include the *Projek Perumahan Rakyat* (PPR) program which offers low cost houses to be rented or purchased by this income group at a heavily subsidized price. Without these programs, not many would be able to purchase or rent a house that they can afford, given the current housing prices in the market.

However, with housing prices raising to "seriously unaffordable" level (Economics Department BNM, 2017), even some households in the middle-income group are finding it hard to purchase houses. What's more, this income group do not qualify for the same housing programs that are offered to the low-income group. Due to the gaps in the homeownership programs and policies, these households are stuck in a position where they either find it very difficult to secure financing to purchase a house or spend too large of a portion of their monthly income on housing. At the same time, they do not qualify for the same assistance afforded to the low-income group.

This research aims to review the literature on affordable housing, existing homeownership gaps, and financial risk faced by middle-income buyers to identify homeownership gaps faced by the middle-income group in Malaysia. An analysis will be done on the findings and suggestions on policy improvement will be made to improve the home ownership affordability for the middle-income group.

■ 2.0 RESEARCH BACKGROUND

Before progressing further, it makes sense to first define the terms used in this study to ensure the research does not lose focused on the topic at hand. The common terms that the research will be focused on are homeownership, the middle-income group and affordable housing

■ 2.1 Homeownership

In the Malaysian context, there are 3 different income groups which are divided according to their income. The B40 income group is the bottom 40% of Malaysians according to their median monthly income. The middle-income group or M40 is the middle 40% of the Malaysian population in terms of median income per month, while the T20 income group is the top 20% of the population in terms of median income.

According to the Department of Statistics Malaysia (DOSM), the middle-income group or the M40 is households that have a median income of RM6,275 and a mean income of RM6,502 per month (DOSM, 2016). As a comparison, the B40 has a median income of RM3,000 and a mean income of RM2,848 per month.

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■ 2.3 Affordable Housing

It is almost impossible to discuss homeownership among the middle-income group without first defining

what affordable housing is. The definition of affordable housing is one of the most discussed topics among the experts in the field. However, there is no consensus on the exact definition of affordable housing in the available literature.

O'Dell mentioned, in a common measure for housing affordability for households in the US is Households whose housing costs exceed 30% of income are considered to have a cost burden, meaning that their housing costs are high enough to make covering non-housing expenses difficult. (O'Dell et al., 2004). This definition takes a narrow approach and is seen as a definition from a home buyers' perspective.

However, O'Dell (O'Dell et al., 2004) also argued that the varying approaches of measuring affordability determines the magnitude of the affordability problem and the appropriate policy responses to the problem. A new definition of housing affordability needs to be explored that are more complex than the 30% standard and that consider the stage in the life cycle of a household and the relationship between income and household expenses.

A holistic definition from Disney defines affordable housing as, "housing of an adequate basic standard that provides reasonable access to work opportunities and community services and that is available at a cost which does not cause substantial hardship to the occupants" (Disney, 2006, p. 4).

According to Bhatta (Bhatta, 2009) "affordable housing is housing deemed affordable to those with a median household income as rated by country, province, region or municipality by a recognized Housing Affordability Index". This definition is seen as a macro perspective of affordable housing.

There are also broader definitions of affordable housing such as from the Maribyrnong City Council (2008): "The well☐located energy efficient housing, appropriate to the needs of a given household, (including access to transport, goods and services and employment) where the cost (whether mortgage repayment or rent) is no more than 30% of that household's income. Housing costs exceeding this percent creates „housing stress", particularly for people in the lower 40% of the income distribution scale".

Based on the available literature on affordable housing, a definition for affordable housing that can be derived is "basic housing that satisfies a given households needs, where the cost (whether mortgage repayment or rent) is no more than 30% of the households income and has reasonable access to public facilities such as public transport, supply of goods and services as well as employment".

■ 3.0 METHODOLOGY

This study was conducted to review literature related to affordable housing and the gaps that exists in homeownership among the middle-income group in Malaysia. Articles were retrieved from several sources which include journals, government agency reports, past research articles, news reports, agency websites etc. The researcher recorded the findings from the literature review in chapter 4.0 of this article. An analysis and discussion are then made in chapter 5.0 with policy suggestions to improve the homeownership affordability for the middle-income group and a conclusion is drawn in chapter 6.0.

■ 4.0 HOMEOWNERSHIP GAPS AMONG THE MIDDLE-INCOME GROUP IN MALAYSIA

This research has reviewed literature on affordable housing, existing homeownership gaps, and financial risk faced by middle-income buyers. The literature review has analyzed policy documents, articles, and secondary literature sources related to the current issues discussed in the public domain. The following are the major gaps identified through the literature review.

■ 4.1 Housing Affordability Indexes

Based on available literature, there are a few approaches that are adopted by various organizations to measure housing affordability in a country. Bank Negara Malaysia (BNM), which is the Malaysian central bank highlights three approaches commonly used to determine housing affordability. These approaches are the Median Multiple (MM), Housing Cost Burden (HCB) and Residual Income (RI) (BNM, 2017).

	Approach	Definition of housing affordability	Advantages	Disadvantages
Macro Level Method	**Median Multiple (MM)**	Median house price that is three times or less than the annual income of the median household (e.g. house price-to income ratio of 3.0 and below).	• Easy to calculate. • Allows comparison of housing affordability across countries and within a country over time.	Ignores the role of credit.
	Housing Cost Burden (HCB)	Housing expenditure (e.g. mortgage repayment) that is less than 30% of household income.	• Considers the effect of leverage and non-housing expenditures of household. • Allows comparison of housing affordability across countries and within a country over time.	Rigid threshold of 30%. Accuracy of cross-country comparison could be affected by differences in cost of living and repayment structure of mortgages across countries.
Micro Level Method	**Residual Income (RI)**	Residual income (after deducting non-housing costs) that is sufficient to service monthly mortgage obligations.	• Considers the effect of leverage and the household's spending patterns. • More reflective of a household's ability to purchase a house.	Limited cross-country comparability. Requires detailed data on household income and attributes, cost of living and housing costs.

Table 1: Comparison of Affordable Housing approaches (BNM, 2017).

■ 4.1.1 The Median Multiple (MM) Approach

As mentioned in Table 1, the MM approach is a macro level approach to measure housing affordability. It is used by organizations such as the World Bank and the United Nations (UN) to gauge housing affordability at a macro level. According to this approach, a house which costs less than 3 times of the median annual income of a household is considered affordable. In other words, a house that has a price to annual income ratio of 3.0 is considered affordable.

Rating	House Price-to-Income Ratio
Severely Unaffordable	5.1 & Above
Seriously Unaffordable	4.1 to 5.0
Moderately Unaffordable	3.1 to 4.0
Affordable	3.0 & Below

Table 2: Median Multiple Affordability Threshold

Based on the MM approach the affordable thresholds are defined in table 2 representing the 4 levels of

housing affordability according to the approach, ranging from "affordable" to "severely unaffordable". However, this approach does not take into consideration the effects of leverage or loans to the overall housing affordability.

■ 4.1.2 The Housing Cost Burden (HCB) Approach

The Housing Cost Burden Approach takes into account leverage or loans into consideration when measuring housing affordability. In the HCB approach, housing expenditure (loan repayments or rent) must be less than 30% of the household monthly income in order for it to be considered as affordable. This approach is used by some financial institutions when considering a loan application buy a house buyer.

■ 4.1.3 The Residual Income (RI) Approach

The RI approach is similar to the HCB approach, but it does not constrain itself to a 30% housing expenditure threshold. Instead, in this approach residual income after deducting non-housing expenditure such as food, essential items, utilities cost etc must be enough to service monthly mortgage obligations. This approach is also used by financial institutions when considering a loan application by a house buyer.

■ 4.1.4 Gaps in the measurement of housing affordability

While it is beneficial to have an approach on gauging housing affordability, it must also be known that each of these approaches gives a different result and picture on affordability. The following is the median house price of houses in Malaysia in 2014 which is compared with the housing affordability indexes using MM, HCB and RI approaches based on Malaysia's median household income for the same year.
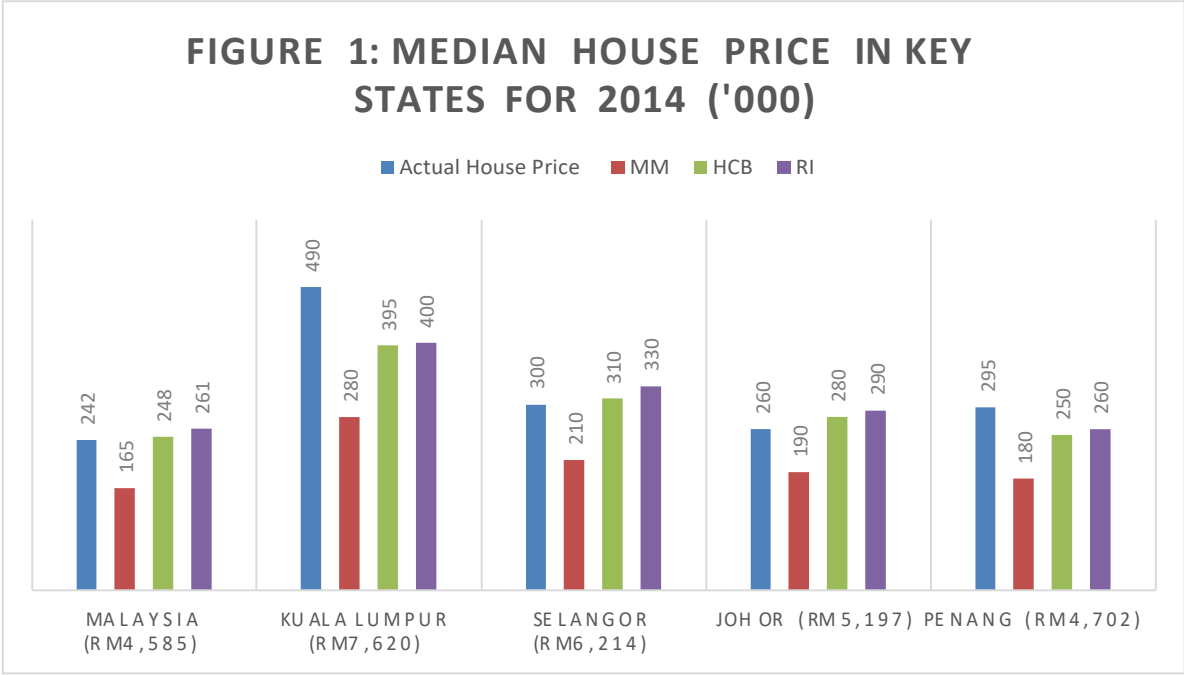

Figure 1: Median house prices in key states in Malaysia for 2014 (BNM 2017)

Figure 1 shows the median house price in Malaysia, as well as key states in Malaysia in 2014 and compares it to the ideal price of houses using the MM, HCB and RI approaches. In 2014 Malaysia has a national median income of RM4,585 and the actual median house price is RM242,000. Using the MM Approach and taking RM4,585 as the median monthly salary, the ideal house price is RM 165,060 (3 times annual salary). This means house prices under the MM approach are considered unaffordable.

However, using the HCB and RI approaches on the other hand the ideal house prices are RM248,000 and RM261,000 respectively. Because the actual house price is lower than the HCI and RI ideal prices, it is considered affordable. This is the same case for Selangor and Johor for the same year.

This mismatch in measuring housing affordability can be a problem in formulating policies because usage of the MM approach mostly by governing bodies or governments and the usage of HCI and RI approaches by financial institutions means these two sides are not on the same page when it comes to what house prices are considered affordable and unaffordable.

■ **4.2 Income Growth vs House Price Increase**

Another gap in homeownership for the middle income is the slow income growth as compared to the rise in house prices. The prices of houses have risen at a faster pace than the growth of income. Chart 2 shows a comparison between income growth and house price rise in the period of 2004-2007 and 2009-2014.

Average House Price Increase vs Average Income Growth (CAGR, %)

2004-2007: Average House Price Increase 2.5, Average Household Income Growth 3.2
2009-2014: Average House Price Increase 7.9, Average Household Income Growth 7.3

■ Average House Price Increase ■ Average Household Income Growth
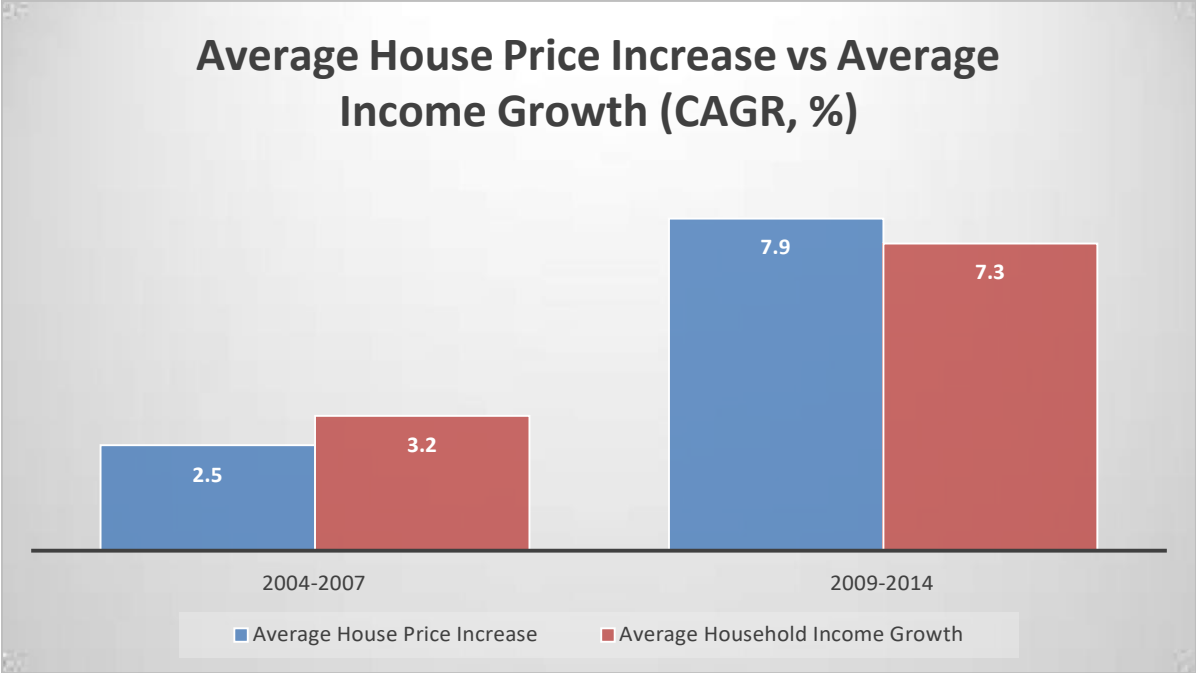
Figure 2: Average House Price vs Average Income Growth for 2004-2007 and 2009-2014 (CAGR, %)

From Figure 2 it can be seen that during the period of 2004-2007, average household income growth stood at a Compound Annual Growth Rate (CAGR) of 3.2% while the average house price saw a CAGR of 2.5%. During the period, average household income growth was higher than the rate house prices were increasing during the same period.

However, within the period of 2009-2014, although the CAGR of household income had more than doubled to 7.3% from 3.2% in the previous period, CAGR of house prices increased to 7.9% compared to the previous period of 2.5%. This means household salaries could not keep up with the raising prices of houses in Malaysia.

■ **4.3 House Supply Imbalance**

The supply of housing, particularly the imbalance supply of affordable housing has also become a stumbling block to homeownership among the middle-income group in Malaysia. Since 2010, new housing launches in Malaysia have been increasingly skewed towards houses priced above RM500,000. Chart 3 below shows the number of new housing launches according to price range.
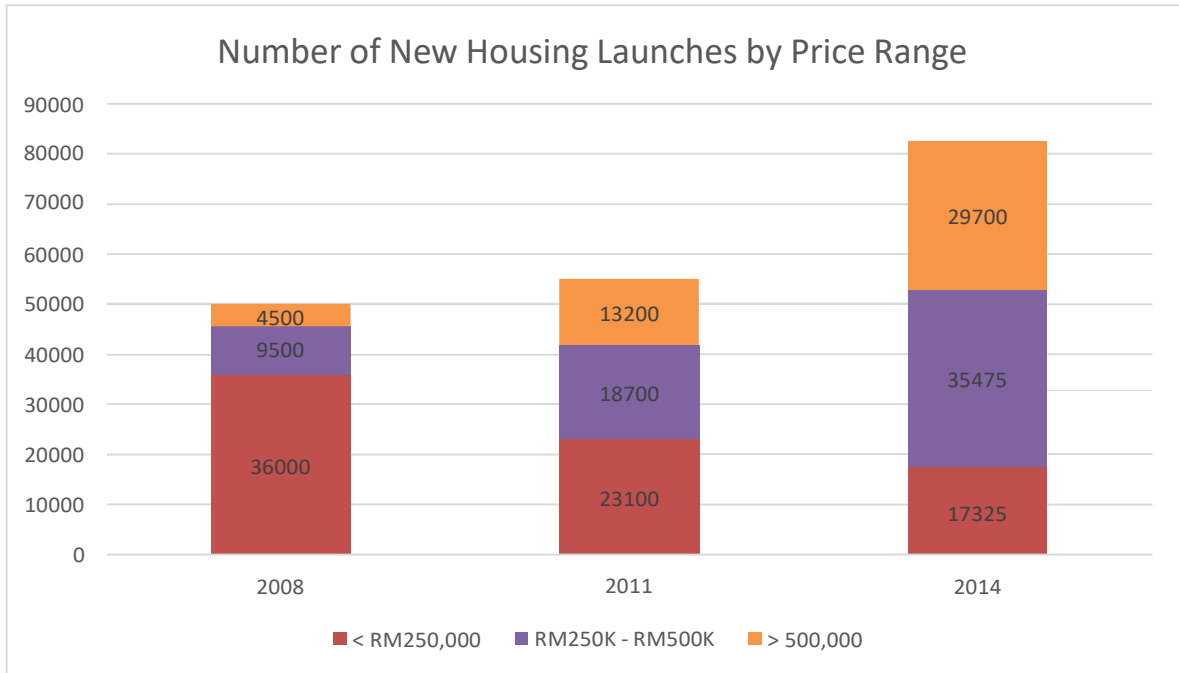
Figure 3: Number of new housing launches for 2008, 2011 and 2014 by price range

Figure 3 illustrates the growth in new housing launches in Malaysia according to price range for the years 2008, 2011 and 2014. It shows that through the years, while the total number of house launches have increased the portion of affordable housing below RM250,000 launched has decreased while the portion of housing in the RM250K – 500K and above RM500,000 category has been steadily increasing in 2011 and 2014.

This supply imbalance coupled with household income growth not being able to keep up with the increase in house prices has caused a rise in the number of unsold residential units. Figure 4 below shows the percentage of unsold residential units in the year 2017 by price range.
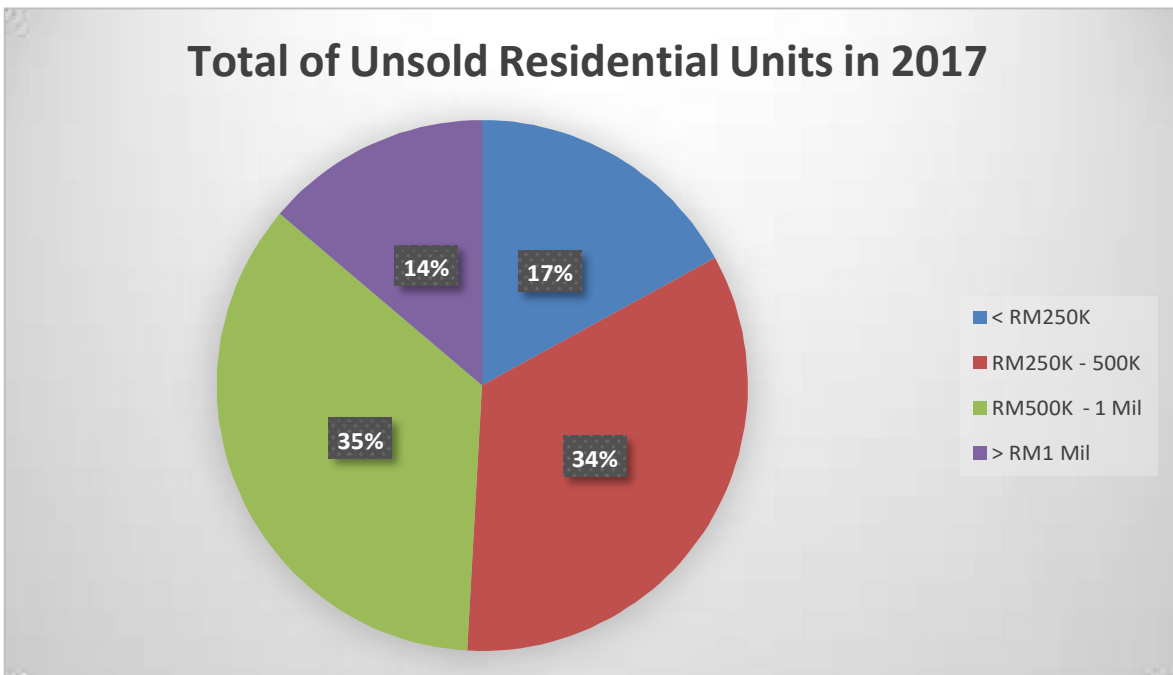

Figure 4: Total of Unsold Residential Units in 2017 by Price Range

It is noted that only 17% of the total unsold residential units are priced under RM250,000. Only houses in this price range are most likely to be afforded by the middle-income group given the average household income of the middle-income group based on the 2016 survey by the Department of Statistics Malaysia is RM6,275. Using the MM approach, the ideal house price for housing for this income group is RM225,900.

■ 4.4 Affordable Housing Schemes and Related Financial Risks

To encourage home ownership among Malaysians, the government has introduced several schemes and policies to help the respective income groups to purchase a house. Among the schemes introduced by the federal government of Malaysia are listed in Table 1.

Schemes / Policies	Objectives / Description	Target Income Group
Low Cost Housing (PPR)	Establish residential amenities to low income household as a way to eradicate poverty and enhance quality of life	< RM1,500 per month
Projek Perumahan Rakyat 1 Malaysia (PR1MA)	Created to develop and contain affordable housing for middle income household in main urban hubs.	RM2,500 – RM15,000
My First Home Scheme	Purposed to help young adults who have newly entered to workforce to buy their first residential property with a price under RM300,000. Up to 110% financing from financial institutions.	<RM5,000
MyHome Scheme	Target low income group- Encourage private developer to build lower cost houses by subsidizing up too RM30,000 per unit of housing built.	RM2,500 - RM6,000 (Depending on location)
Rumah Mesra Rakyat 1 Malaysia (On Hold)	Target low income group- Government subsidised between RM15,000 and RM20,000 for the low- income group to create houses valued between RM45,000 to RM65,000	<RM1,500

Table 3: existing housing schemes in Malaysia

As portrayed in the Table 3, the housing policies have overemphasized the provision of low-cost housing that there exists less medium cost house available in the market. Gaps have begun to appear in the system, embodied by the rising concern of middle-income group who are neither entitled for social housing nor capable of affording private sector-supplied houses (Abdullahi & Aziz, 2011).

The *Projek Perumahan Rakyat 1 Malaysia* (PRIMA) is one of the affordable housing schemes that includes provision of houses to the middle-income group, which is the focus in this research. The scheme is managed and run by the *Perbadanan PR1MA Malaysia*. It was established under the PR1MA Act 2012 to plan, develop, construct and maintain high-quality housing with lifestyle concepts for middle-income households in key urban centres.

PR1MA homes come in various types and sizes within an integrated community; sensibly designed to suit different household needs. Priced between RM100,000 to RM400,000, you can now own a home that is well within your reach. Earmarked for development in key strategic urban areas nationwide, PR1MA is open to all Malaysians with a monthly household income between RM2,500 to RM15,000. (PRIMA, 2019)

Interestingly, PR1MA not only provides a supply of affordable housing, but also provides financing for the housing managed by them through the PR1MA Flexible Financing Scheme (SPEF, 2019). Figure 1 shows the unique payment structure of the financing scheme.

Skim Pembiayaan Fleksibel (SPEF) PR1MA
Estimated Loan Eligibility and Monthly Repayment

Assumption	Conventional Loan	SPEF
Tenure	35 years	35 years
Interest rate	4.45%	4.75%
Debt Service Ratio (DSR)	60%	70%
Nett Disposable Income (NDI)	RM1,300	RM1,000
Other loans	RM750	RM750

		SPEF	
		Scenario 1	Scenario 2
Monthly Income	Conventional Loan	Stepped-Up Financing — • Pay interest for first 5 years • Pay principal + interest from year 6 onwards	Stepped-Up Financing + EPF Account 2 — • Pay interest for first 5 years • Pay principal + interest from year 6 onwards
2,500	95,000 $P+i$ = 448	116,700 $Y1\text{-}5\,i$ = 448 $Y6\,p+i$ = 666	162,100 $Y1\text{-}5\,i$ = 626 $Y6\,p+i$ = 925
3,000	187,000 $P+i$ = 880	228,600 $Y1\text{-}5\,i$ = 880 $Y6\,p+i$ = 1,305	283,200 $Y1\text{-}5\,i$ = 1,096 $Y6\,p+i$ = 1,615
3,500	257,000 $P+i$ = 1,211	305,900 $Y1\text{-}5\,i$ = 1,211 $Y6\,p+i$ = 1,744	369,600 $Y1\text{-}5\,i$ = 1,463 $Y6\,p+i$ = 2,108
4,000	347,000 $P+i$ = 1,618	408,700 $Y1\text{-}5\,i$ = 1,618 $Y6\,p+i$ = 2,331	Max 440,000 $Y1\text{-}5\,i$ = 1,906 $Y6\,p+i$ = 2,509

Figure 1: Loan repayment structure of PR1MA Flexible Financing Scheme (SPEF, 2019)

Y= Year, p = Principal (of loan repayment amount) and i = interest (of loan repayment amount)

DSR or Debt Service Ratio is the ratio of a persons' income towards a his or her loans and credit commitments, while NDI or Nett Disposable Income refers to the amount of money left form a person's income after deducting existing loan commitments as well as the loan commitment that the household is applying for.

This scheme enables a buyer to purchase a higher priced property compared to conventional loans by lowering its terms of eligibility in terms of the maximum Debt Service Ratio (DSR) to 70% and Nett Disposable Income (NDI) to RM1,000. On top of that, the interest rate is increased from 4.45% to 4.75%.

This essentially means, through this scheme, buyers with more debt and lower disposable income can purchase housing with a higher price tag and interest rate. In addition to that, they can use money from their Employee Provident Fund (EPF) which decreases their savings for retirement.

This is not an ideal measure to help the middle-income group to own housing because it potentially puts them in a higher financial risk for borrowing more than they can afford and also diminishing their retirement savings by using EPF savings. As it is, the outlook of retirement savings of Malaysians is already not looking good. In a news report in October 2017 (The Star, 2017), it was reported that the EPF had raised the targeted amount of EPF savings by 55 years old from RM197,000 to RM228,000. But only 18% of the members met that target that year. This is far short of the target of at least half of the members meeting the target by the year 2021.

In addition to that, the financial situation of Malaysians is not in the best of conditions. A survey conducted by the Counselling and Debt Management Agency or *Agensi Kaunseling dan Pengurusan Kredit* (AKPK) which found that Malaysian Working Adults (MWA) from the B40 and M40 surveyed have an average financial wellbeing score of 6.1 out of 10 which puts most of them in the "surviving" category. Only 10% of MWA fall under the "comfortable" category and 6% in the "elated" category (AKPK, 2018). This shows that most

Malaysian Working Adults have very little ability to take on excessive financial risk.

■ **4.5 Policy Focus**

One broad analysis of the affordable housing issue is elaborated by Diwa Samad (Samad et al., 2017) where his paper broke up affordable housing policies into demand side policies and supply side policies. These two categories of policies played their own part in contributing to housing affordability.

On the supply side policy, the paper brakes down the policy practices into land and regulation related issues, minimizing housing development costs, and operation and maintenance cost. This gives a clearer segmentation on the types of strategies taken by governments around the world to regulate or assist the housing industry to achieve better housing affordability

On the demand side, initiatives widely adopted by many countries encompass financial elements, targeted subsidies and rental control. Among the ones mentioned by the researcher is reduce loan/mortgage cost, leverage collective saving, enhance rental market, identification of beneficiaries and diversify source of funding.

Supply Side Schemes		
	Key Strategies	**Countries Case Studies**
1. Land Related Measures	Transit-oriented development	Hong Kong, New York
	Release of Publicly Owned Land	Turkey, China
	Land Regulation and Taxation	Philippines, China
	Registration of Land Titles	Singapore
	Land Readjustment	Japan, South Korea, India
	Inclusionary zoning	Spain, USA
2. Cost Effective Housing Development (Long Term Supply Measures)	Design and Standardization Guidelines	Singapore
	Labor Skills Building	Malaysia, India
	Productivity Improvement Programs	USA
	Encourage Small and Medium Enterprises and Engagement of International firms	Saudi Arabia, Egypt, India
	Innovation in Technology	South Africa
3. Maintenance and operation cost (Short Term Supply Measures)	Technical Assistance	Brazil, UK
	Energy efficiency measures	UK, Ireland
	Maintenance quality standards	UK
	Community Management	UK, China
Demand Side Schemes		
1. Reduce Loan/ Mortgage Cost	Holistic Income Assessment	India
	Digitize Mortgage Process	China
	Mortgage Liquidity Facility	Malaysia
	Mortgage Backed Securities	USA
2. Leverage Collective Saving	Housing Provident Funds	Singapore
	Contractual Saving Schemes	Europe
3. Enhance Rental Market	Rental Subsidies	USA, Netherlands
	Renter Protection Measures	Germany
	Rent to own initiatives	USA
4. Identification of beneficiaries'	Eligibility Database	USA
	Prioritization Scheme	USA
	Allocation Mechanism	Turkey
5. Diversifying Sources of funding	Tax Increment Financing	USA
	Public Private Partnership	Malaysia
	Linkage Fee and Taxation	USA

Table 4: Supply and Demand Side Schemes around the world (Samad et al., 2017).

Table 4 lists down the supply and demand side schemes employed by governments around the world and the case studies identified by Diwa Samad (Samad et al., 2017). Malaysia employs only one supply side scheme

strategy, which is Labor Skills Building while employs two demand side scheme strategy which are Mortgage Liquidity Facility and Public Private Partnership. Note that Rent to Own initiatives have started to appear in the Malaysian housing market in 2019 (IOI, 2019) which was not available during the study by Diwa Samad.

Analysis on the findings of the paper by the researcher found that Malaysia has undertaken relatively stronger demand side scheme and while the country has taken tremendous steps in effective provision of housing, less progress is seen in addressing the factors that constrain supply, which often thwart improvements on the demand side.

■ 5.0 DISCUSSION AND ANALYSIS

From the literature review, five (5) main gaps have been identified in relation to affordable housing ownership. They are housing affordability indexes, the income growth not able to match house price increase, the home supply imbalances, affordable housing programs and related financial risks, and policy focus. As a contribution to the development of better housing policies to enhance housing affordability for the middle-income group, this research is suggesting the following policy suggestions to counter the effects of the gaps identified.

- Housing affordability indexes are important for the different stakeholders such as the government, banks and developers gauge the affordability of the housing market and help them take corrective measures to ensure affordability of housing in the market. The current approaches employed by the different stakeholders in the housing market does not promote a uniformed understanding of the current housing affordability situation in the country. Research is needed in a new approach of measuring housing affordability that produces a standardized assessment and allows a uniformed understanding of the housing market affordability across different stakeholders of the property market.

- Income growth on the other hand depends on too many factors and it is difficult to improve in a short period of time. However, the increase of salaries among Malaysians can directly improve the ability for the middle-income in group and all Malaysians in general to own affordable housing. Steps should be taken to ensure better income growth among households in Malaysia if any improvement in housing affordability is to be seen. Further research is needed to identify the best steps to be taken to achieve higher salary growth given the Malaysian economic background.

- To address house supply imbalances, Bank Negara had made a policy good suggestion in its article "Demystifying the Affordable Housing Issue in Malaysia" (BNM, 2017) where it suggests the establishment of a Central Repository as a systematic way of monitoring and managing the demand and supply of affordable housing. This repository should be managed and monitored by a single authority mandated to oversee the nations affordable housing needs. It should be updated frequently to reflect the changes in household income as well as evolving needs and preferences of the Malaysian households. What is needed is an implementation framework to establish this authority that oversees the nations affordable housing needs.

- The affordable housing schemes put in place are reflective of the policy focus of the government. The affordable housing programs available, particularly PR1MA, provides affordable houses for the middle-income group and offers a flexible payment scheme, but on the other hand increases the financial risk of the buyer by lending more to the buyer compared to a conventional loan and give the option of using EPF savings to assist in the payment of the house. However, the blame cannot be put squarely on PR1MA because the cooperation can only work within the confines of the policy put into place by the government. Further research on a better affordable housing homeownership framework for the middle-income group is needed.

- The affordable housing schemes are part of the mortgage liquidity facility and diversification of fund sources via public private partnership demand side schemes prominent in Malaysian housing policy as mentioned in research by Diwa Samad (Samad et al., 2017). These demand side policies help Malaysian buyers to own houses but does not necessarily lower house prices. Policymakers should focus additional efforts in strengthening supply side policies that can help reduce the costs of building houses. Further research is needed to identify the best supply side schemes suitable for the Malaysian housing market.

■ 6.0 CONCLUSION

This paper has reviewed many literatures on the issues in the affordable housing market and identified existing gaps that has become obstacles for the middle-income group to own affordable housing. The paper has also highlighted the areas that warrant further policy research to close the gaps to the affordable housing market. Most of the literature support a conclusion that a big part of the gaps in the affordable housing market are related to the mismatch between the supply and demand caused by lack of effort on supply side schemes which help regulate supply and reduce the cost of construction of affordable housing.

With the identification of homeownership gaps highlighted in this paper, it is hoped that further policy research can be done in an effort to improve homeownership affordability among the middle-income group in Malaysia.

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