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## Housing and Transport in Malaysia: A Fundamental Combination in Determining Affordability.

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### ABSTRACT

**Background:** Malaysia is undergoing significant changes through rapid economic development. Growing urban population led to challenges confronting the housing and transportation sectors, affecting affordability. **Objectives:** This literature review on housing and transport was conducted to explore Malaysia's housing and transport affordability issues. This study also provides an overview of housing policies in relation to housing and transport affordability. **Results:** Increased urban population; housing/transportation connectivity; affordable-accessible housing; and housing price/income mismatch were identified as key challenges of Malaysia's housing and transport affordability. Integrating housing location and public transport networks not only improves regional accessibility, but also reduces traffic congestion and rejuvenates neighborhoods. **Conclusion:** A new or improved sustainable public transport system can ultimately boost the growth of the local and regional economy.

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## INTRODUCTION

Housing affordability is defined as the extent to which housing costs for a given standard of housing affect a household's income to meet other necessities of life or their capacity to meet their total household needs [1]. Hence, housing is affordable if its cost relative to income is reasonable or moderate. Earlier researches have resulted in a 'Rule of Thumb' that affordable housing expenditure should not be more than 25-30% of a household's income [2]. In other words, families who pay more than 30% of their income for housing are considered cost-burdened.

Transportation cost is the second largest expense for families after housing. However, few consider this cost when choosing a place to live [3]. This fact has led some recent studies to highlight the importance of including transportation cost in measuring housing affordability. Litman (2013) suggests that an affordable housing and transportation (H&T) expenditure of a household should be less than 32% of their budgets on housing, 20% on transportation and not more than 45% on combined H&T expenses [4].

Rapid increase in house prices, especially in major cities has contributed to housing affordability conundrum. This phenomenon has somewhat changed the landscape of housing provision in Malaysia. Other than focusing on comfort and quality, the government has also put a high priority on the need for providing affordable housing. In light of this, housing policy related to affordability has been extended through a number of national development plans to improve homeownership in Malaysia [5]. However, there is a considerable lack of effort in looking at transportation cost as one of the important elements in affordability issues. Therefore, this study seeks to explore the issues of housing and transport affordability in Malaysia, especially in the urban areas.

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### *Methodology:*

To put it into context, this study reviews Malaysia's housing policy in the light of housing and transport affordability. The investigation was done through a review of the literature from local and international sources such as books and journal articles. Government documents, newspaper articles and periodicals linked to housing and transport affordability are also sources used to fulfil the objectives of the study. Several data bases were searched to access information, namely, ProQuest, Emerald, EBSCO, and Science Direct. In addition, search in google scholar, google search engine, and the University of Malaya Books-search engine were performed to extract additional information.

Various combinations of keywords, such as, 'housing affordability', 'transport affordability', 'Malaysia', and 'housing policy' were used in the searching process. Initially, the search resulted in 124 crude documents of which 67 were repeated. The repeated documents were deleted and then the titles and abstracts of the remaining 57 documents were scanned to check if they are relevant to the study focus. This resulted in 33 documents that are included in this study.

### *Results:*

#### *Malaysia's housing policy:*

In Malaysia, policies related to housing development were outlined in the National Housing Policy (NHP) [6]. Besides the efforts from the federal government agencies and the private sector to provide affordable houses, the Ministry of Housing and Local Government (MHLG) encourages the state governments and agencies to engage more actively in housing development. MHLG also plans to set the prices for affordable houses, especially in projects which are subsidised by the government. This is to control the ownership and sale of affordable houses as well as to curb property speculations. Private developers are also encouraged to develop medium-cost houses to fulfil the needs of the middle-income group [6].

The government and various government-linked companies (GLC) have been directly involved in the construction of low-cost flats under the People's Housing Programme (PPR). The state governments were given the flexibility to determine the quota of low-cost houses to be built in mixed-development areas, based on the suitability of the location and local demand. This flexibility allows the state governments to adjust this quota to meet the actual needs in specific locations [6].

#### *The issues and challenges of housing and transport affordability in Malaysia:*

Despite Malaysian government initiatives and interventions to improve housing provision, the demand for housing is rapidly increasing, especially in urban area [7]. Recent studies reveal lack of households' ability towards homeownership. That is mainly attributed to the sharp increase in housing prices, which increased by 40% between 2009 and 2013 [8]. This acceleration in housing prices has been so high to an extent that even middle income household could not afford a house [9].

Household in Malaysia spends about 22.6% of its income on housing and 14.9% on transport (Figure 1) [10] Although the Report on Household Expenditure Survey, 2009/2010 published by the Department of Statistics reported that the combined H&T expenses for Malaysian household at 37.5%, which is lower than the 45% proposed by Litman (2013) as within the affordability limit, the public discourse in Malaysia seems to show otherwise. Furthermore, the survey was published in 2009, where assumption can be made that the survey was undertaken before 2009, at the time when housing and transport cost are much lower than they currently are. This highlights the importance of including transport cost when determining housing affordability of Malaysian households. However, unfortunately, studies on housing affordability in Malaysia have not taken this fact into consideration [11].

The high cost of housing in the inner city has led households to reside far from their workplaces to reduce their housing costs. However, evidence shows that the expenditure per rural household for transport is higher than that for urban household. The suburban household may also experience the same predicament as the rural household. The higher cost of transportation borne by households living in the suburbs may result in some households, unintentionally, to pay higher combined housing and transportation costs than their counterparts residing in the inner cities [12].

#### *Increasing urban population:*

Rapid growth of urban areas is caused by natural increase in population and migration to urban areas. Internal migration is most significant in most countries, while international migration is also accelerating. Both external and internal migrations led to urban growth [13]. Population growth also brings major impact to transportation. A study found that population is one of the leading factors that contributed to the increase of motorization worldwide. The study further explains that the demand for transportation increased proportionally with the population [14].

In Malaysia, both the housing and transportation sectors experience the effects of increasing urban population, especially in urban areas [15]. The migration of people from rural to urban areas created high

demand for housing and transportation [16], especially for lower and medium-income immigrants. The supply of residential property in Klang Valley in 2011 showed the poorest performance compared to a decade ago [17]. On the other hand, there is rapid growth of road-based motorization in Malaysia due to ever-increasing demand for transport and the expansion of road network [18]. This scenario has led to the increased in people commuting, which subsequently increased their spending on transport.

**Table 1:** Average monthly expenditure by main group of goods and services (2009/2010), percentage of total expenditure.

Item	%
Miscellaneous goods and services	8.7
Education	1.4
Health	1.3
Housing, water, electricity, gas and other fuels	22.6
Alcoholic beverages and tobacco	2.2
Restaurants and hotels	10.9
Recreational services and culture	4.6
Transport	14.9
Furnishing, house equipment and maintenance	4.1
Clothing and footwear	3.4
Food and non-alcoholic beverages	20.3
Communication	5.6

Source: Department of Statistics, Malaysia; Report on Household Expenditure Survey, 2009/2010. Adapted from Amin (2013) [12].

#### *Housing and public transportation connectivity:*

Housing quality issues have been highlighted in many medium in the country and have received positive policy feedback. Whereas, the connectivity issues of housing and transport have received lukewarm feedback from both the government and the private sector. Mytelka and Boyle (2008) found poor public transport system as the main cause for the increased use of private vehicles in Malaysia [19]. Another study added that higher travel time and travel costs incurred by using public transport are the major reasons for people to own car [20]. The same study proposed the need of efficient public transport system to attract car owners to shift to public transport [20].

#### *Affordable-accessible housing:*

There are many factors influencing private vehicle ownership in Malaysia. Besides income level, the spatial arrangement of urban fabrics has becoming more important determinant of owning a vehicle [21]. This is supported by Kasipillai and Chan (2008) in which Malaysia has experienced continued automobile dependency over the past decades [22]. The negative effects of high vehicle usage offset the benefits of accessibility and mobility. This situation has led to the exploration of alternative measures to address some of the negative effects of the surge in private vehicles such as transit-oriented development (TOD). National Urbanisation Policy (NUP) emphasizes TOD as one of the tools to guide and coordinate the planning and urban development of the country. As TOD reduces transportation cost, it is estimated that a household could save RM 3,000 to RM 4,000 per year [23]. However, high land cost that results from market demand for housing, office space and amenities within walking distance of public transport and good road networks has been identified as a major challenge to affordable-accessible housing and TOD.

#### *Housing price and income mismatch:*

The house prices have increased enormously, reflecting higher costs of production (such as material and labour costs), rising land prices and costs of compliance and interest charges [24]. A study on middle-income group in Kuala Lumpur found that majority of the respondents pay rentals of between RM 400 to RM 1,200 per month for a house or a room. However, their monthly income level is between RM 1,201 to RM 2,400 [25]. This shows that housing price-to-income ratio is almost more than 30% of the household income.

Chang (2013) stated that the current mismatch between the types of housing units offered and the units preferred by the low and middle income groups in Malaysia shows that houses are now becoming less affordable [24]. For instance, non-luxury condominium units or intermediate link-houses offered by housing developers can reach to more than RM 500,000 in most urban and even suburban areas [24]. They are obviously far beyond the reach of the low and even medium income groups. As a result, most state governments impose 30% quota to build low and low-medium-cost housing to private developers. However, developers often encounter problems to meet these quota due to the lack of demand for low-cost housing units in the targeted market segments. The reasons among others include location, pricing, affordability levels and preferred types of property [26].

Factors such as lack of regular public transportation and infrastructure facilities have been identified as contributing factors to low demand for low cost housing. In the case study of public housing in Selangor, Malaysia, more than 50% of the occupants of various council housing in the state travelled more than 10 kilometres to their workplaces while other basic facilities and amenities such as schools and shops were located

within 4 kilometres to 10 kilometres of public housing areas. This has discouraged low-income group from residing in these poorly-chosen locations [27]. To tackle this issue, state governments are given the flexibility to decide housing construction quotas based on a specific guideline so that they can impose a higher quota for affordable housing according to need, while reducing the low-cost quota. For instance, the quota could be amended to 20:20:10, i.e. 20% low-cost, 20% low-medium-cost and 10% medium-cost housing according to the needs of potential residents. In the case of Penang, Malaysia, developers are to face levies or make contributions if they were to be exempted from developing low-cost or medium-cost houses [26].

#### *Discussion:*

The patterns of housing today favours the housing areas to be developed further away from urban areas and concentrating in the suburbs. Although the land is cheaper and abundant in the suburbs, the distance made it less accessible from the place of employment and commercial centres. This situation created the demand for mobility as people lived further away from opportunities. The need for connectivity and accessibility to economic activities in this scenario, must be addressed with the availability of transportation services in the form of private vehicles or public transportation [12]. Although the problem of housing areas with insufficient basic social amenities and facilities such as transportation, safety, and maintenance is addressed in one of the policy statements in the NHP, there is no specific provision that directly mention the requirement of connecting transportation network and housing development to deal with housing and transport affordability issue.

The escalating increase of house prices especially in major cities has worsened the issues of inaccessibility to housing facilities for low and middle-income group. These households are concerned because affordability affects not only their ability to become a homeowner, but also the size and type of the house they are able to purchase [28]. This was further supported by Abdullahi and Aziz (2010) in which they found low-income housing is one of the existing challenges experienced by most developing countries, including Malaysia [29]. Some of these developing countries even assumed this would be a continuous problem. Regardless of the priority given to fulfil the demand for low-cost housing, some researches contended that Malaysia is lagging behind the success recorded in other countries such as Singapore, South Korea, and Hong Kong [30, 31].

Responding to the escalating housing price in urban areas, Edmund (2012) argues that developing housing units at the sale price of RM 100,000 – RM 400,000 in Klang Valley area is very challenging [32]. As an alternative, most affordable houses are located away from the city centre and major towns without easy access to public transportation. This scenario has led to many unsold properties caused by poor location. Although these properties are deemed affordable, they are in less accessible location and restrict the owner from accessing economic and employment opportunities [33].

#### *Conclusion:*

The increased housing and transportation costs tend to affect households living in the outer city areas compared to those in the inner city. Policy makers need to consider this situation when designing policies on housing and transportation. Therefore, future research on housing affordability should take into account transportation costs, so that stronger empirical evidence base can be used to inform the development of policies affecting housing, transport and employment hubs. Integrating housing and public transport networks not only improves regional accessibility for residents and businesses, but also reduces traffic congestion and rejuvenates neighbourhoods. A new or improved public transport system boosts growth and strengthens the regional economy.

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