



SIGNIFICANT FACTORS OF KEY PARAMETERS FOR LOW MEDIUM COST HOUSING DEMAND IN MALAYSIA

N. Y. Zainun¹, M. S. Abdul Rahman¹, A. R. Alias¹, F. E. Mohamed Ghazali²

¹Jamilus Research Center, Faculty of Civil & Environmental Engineering, Universiti Tun Hussein Onn Malaysia

²School of Civil Engineering, Universiti Sains Malaysia

Corresponding author: nryasmin@uthm.edu.my

ARTICLE DETAILS

Article history:

Received 14 September 2016

Accepted 22 December 2016

Available online 10 January 2017

Keywords:

Keys Parameters, Demand,
Low Medium Cost

ABSTRACT

Housing is one of the basic needs for human being. In Malaysia, there are most low cost and low medium cost houses being constructed due to high demand which in line with the fourth strategic objective outlined in the 10th Malaysia plan. The total number of population in Malaysia has increased by 0.17% from 17,563,420 in year 1991 to 27,565,821 in year 2010. Owing to this substantial increased, most of the low-income group cannot afford to own a house. The purpose of this paper is to identify key parameters of low-medium cost housing demand in Malaysia through questionnaire survey with local experts within the construction industry. Data acquired from the questionnaire survey is analysed using Mean Rank adopted from the Statically Package for Social Science (SPSS). Also the parameters identified are analysed using frequency analysis to determine the frequency and ranking. As a result, eight parameters for medium cost housing demand have been identified from this study, namely population, economy, household income, ability of buyers, housing prices, politics, land price, and experts from industries. Ranking from experts has indicated that household income as the most prioritised parameter for low medium cost housing, which are then subsequently followed by population, economy, house price, land price, ability of buyers, experts from industries and politics respectively.

1.0 Housing in Malaysia

Housing is a basic need for every individual and family in achieving the quality of life. House is a place where residents can release their tiredness and have some social life with their family [1]. Maslow's theory stated that home is a place of refuge and a second-level requirement that must be accomplished for safety before the needs of the higher levels are met. Home is a basic unit and also as a personal and a family need [2]. Meanwhile, [3] defined housing as a dwelling which is separate and independent and aims to occupy a household. However, there is also a housing unit occupied by more than one household [3].

Housing categories in Malaysia are divided into three; low cost housing, medium cost housing and high cost housing. When the new National Housing Policy were introduced in 1998, the housing categories had been split into four types; low cost housing, low medium cost housing, medium cost housing and high cost housing. The structure of housing prices have been set in accordance to the type and category as shown in Table 1 [4]. Through *Syarikat Perumahan Negara Berhad* (SPNB), the government would be able to manage the construction prices for low-medium cost housing so that the housing supply could be able to meet the demand of RM1,501 to RM2,500 target income group [5].

Table 1: Housing price structure

Categories	House Price per unit	Target Groups/ Income per month
Low Cost	Below RM42,000 (depend on location)	Below RM1,500
Low Medium Cost	RM42,001 – RM60,000	RM1,501 – RM2,500
Medium Cost	RM60,001 – RM100,000	Not stated
High Cost	More than RM100,001	Not stated

Source: (Ministry of Housing and
Local Government, 1998).

Malaysia government has introduced low, medium and high cost housing categories and under the Seventh Malaysia Plan (1996-2000) in which the low medium cost housing category has also been introduced due to an increased demand for this income group category [6]. The total number of housing units targeted under Seventh Malaysia Plan was 800,000 units and 782,300 units for Eighth Malaysia Plan [7]. Meanwhile, during the Ninth Malaysia Plan, the demand for new houses was estimated to be approximately 709,400 units where 19.2% had been allocated to Selangor and then followed by 12.9%, in Johor, 9.4% in Sarawak and 8.2% Perak [8]. In the Tenth Malaysia Plan, various of affordable housing plans were provided such as Program Bantuan Rumah (PBR), Program Perumahan Rakyat (PPR), Skim Perumahan Mampu Milik Swasta (MyHome) as well as Perumahan Rakyat 1Malaysia (PR1MA) [9].

Recently, the major demand related-issue is not on the availability but the affordability of the Malaysian public to own a house. Based on to the Seventh Malaysian Plan, low medium-cost houses are meant for the low-medium income group. The government had allocated a specific amount of budget to construct houses for this group through a programme called MyHome [10].

Housing industry in Malaysia has been critical with the substantial increase rate of demand over the years, which can be justified through the fact that construction sector remains strong at 9.6% in third quarter 2014 compared to last ten years in the sector [11]. This statement can be strongly supported through the commitment shown by the Malaysian government to provide adequate, affordable and quality of housing for the public from all levels of society especially the low-income earners [12]. However in 2014, from a total of 10,189 units that being launched in first half at that year, only 49% were taken up by this group. Similar situation happened during to the second half of the 2013 period [13] and the worst scenario was recorded in 2004 when there were no takers for 100,000 available housing units in Selangor whereas places like Kuala Lumpur were still lacked of houses [14].

According to [15], housing problems become more critical especially in major cities like Kuala Lumpur, Johor Bahru and Ipoh due to a rapid growth of the population from natural increase (births minus deaths) and migration from outside the city, which have contributed to the serious problem in terms of supply and demand. Therefore, the issue of unsold properties has become a major issue addressed in the 9th Malaysia Plan especially when it happened in developed states as such as Johor, Selangor and Penang [16].

Persatuan Arkitek Malaysia has identified the fact that Malaysia people cannot afford to own a house due to uncontrolled land and house prices [10]. The land value has increased tremendously in parallel to the housing demand [17]. In addition, according to [18], urbanization is another factor that increases the demand of housing in urban.

According to [19], the lack of housing to meet demand may come about in two main ways. The first cause is either decay or depreciation of housing stock over time, or through natural disaster. The second cause is that a lack of dwellings within any particular region is from an increase in housing demand, generated through a population increase and combined with other social and economic factors. These showed that before specific planning and development of housing, key parameters of housing demand is crucial. Therefore, this paper aimed to establish key parameters of low medium cost housing demand in Malaysia.

2.0 Methodology

The initial parameters related to the low medium cost housing demand in Malaysia have been identified through an extensive literature review, which then being transformed into a likert-scale questionnaire to be distributed among 18 local practitioners involved in the construction industry in Malaysia for justification purposes via interviews. The critical criterion for respondent selection include a minimum of 10 years' experience working in housing development projects either in private or public sector. The data generated from questionnaire interview are analyzed through a reliability test prior to conducting a frequency analysis. The mean rank method has been used to determine ranking of each parameter involved where the most effective parameter will be determined based on mean score with value more than 4.00 [20]

3.0 Results and Discussions

There are 8 parameters of low medium cost housing demand in Malaysia that have been identified from the literature review, namely (1) household income, (2) ability of buyers, (3) economy, (4) house price, (5) population, (6) politics, (7) land price, and (8) experts from industries [21-25]. Table 2 shows the results of frequency analysis for each of the identified parameters. It indicates that population as the commonly used parameter for the low medium cost housing demand in Malaysia, which then followed subsequently by economy. Others parameters have only being cited once.

A five point likert scale score, which ranges from purely insignificant onto purely significant in the questionnaire interview with all 18 respondents in order to determine the degree of significance of each parameter towards the low medium housing cost demand in Malaysia. The result indicates that almost 90% of the respondents agree on the importance of all the eight parameters involved towards the low medium housing cost demand in Malaysia, which is being evaluated based on moderate up to purely significant overall score. Table 4 outlines the reliability test conducted using Cronbach's Alpha adopted from the SPSS software in order to determine the consistency of the data.

No	Parameter	Authors					Frequency
		[21]	[22]	[23]	[24]	[25]	
1	Income	/					1
2	Buyers Ability	/					1
3	Economy		/		/		2
4	House Price		/				1
5	Population			/	/	/	3
6	Politics				/		1
7	Land Price					/	1
8	Experts from Industries					/	1

Table 2: Frequency analysis of the parameters

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.864		

Table 3: Data Respondent of Parameter

The cronbach's alpha method is used to calculate the average of all potential reliability coefficients. The indication of results with more than 0.6 are considered good while more than 0.7 are essentially very good [26]. Thus the result of reliability test for this research, as shown in Table 4 falls under "essentially very good" category with the score value of 0.864.

Table 4: Reliability test

0.864 0.841 8

No	Parameter	Likert Scale				
		Purely Insignificant	Not Significant	Moderate	Significant	Purely Significant
1	Income	2	0	0	2	11
2	Buyers Ability	2	0	1	3	9
3	Economy	1	0	1	5	8
4	House Price	1	1	0	5	8
5	Population	0	0	3	4	8
6	Politics	0	1	8	6	0
7	Land Price	1	0	0	8	6
8	Experts from Industries	1	2	1	10	1
Total		8	4	14	43	51
Percentage		6.6.7%	3.33%	11.67%	35.83%	42.5%

Figure 1 meanwhile portrays the results acquired from the mean rank analysis in order to determine the priority importance ranking of each parameter addressed in this research. The mean value 4.00 represents "important" and thus the ranking of "significant" parameters for the low medium cost housing demand in Malaysia is being classified based on the mean value, which exceeds 4.00 from the standard deviation [27]. However, parameters with the same mean value are selected based on the highest standard deviation.

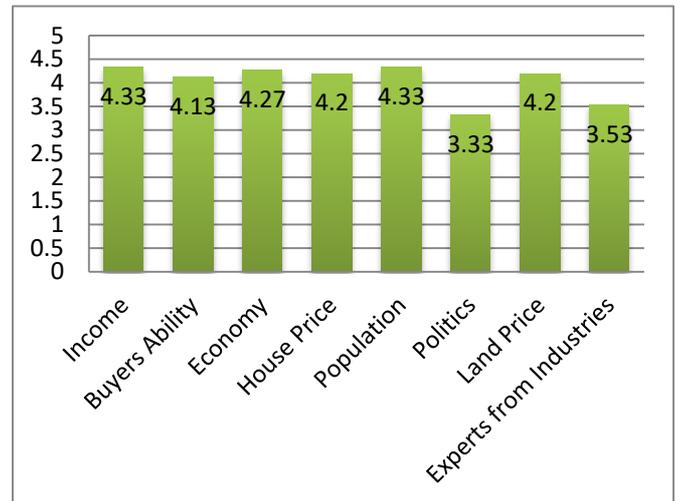
Figure 1. The Priority Ranking of Significant Parameters for Low Medium Cost Housing Demand in Malaysia

Figure 1 identifies the ranking of 6 parameters that have been classified as 'significant' for low medium cost housing in Malaysia, which in sequential manner are; (1) household income; (2) population; (3) economy; (4) house price; (5) land price; and (6) ability of buyers. This result justifies the fact that population and economy are among the most significant parameters for low medium cost housing demand in Malaysia, which can be supported by the frequency analysis findings as outlined in Table 2. In addition, the ranking of household income as the most significant and important parameter towards the demand of low medium cost housing is justified through the findings by [19]. Although politics and

experts from industries only managed to generate a mean value less than 4.00, which can be classified as least significant in the priority ranking, the impact of these parameters could be very much influential towards the demand of low medium cost housing in Malaysia. Thus these parameters should not be neglected in future planning.

4.0 Conclusions

In conclusion, 6 significant parameters for low medium cost housing demand in Malaysia are; (1) household income; (2) population; (3) economy; (4) house price; (5) land price; and (6) ability of buyers. 3 most significant parameters are; population, economy and household income. These key parameters can be used for further research on low medium cost housing demand in Malaysia.



Acknowledgement

This project is funded by Ministry of Science, Technology and Innovation under Special Grant VOT number A046. The authors are thankful to Universiti Tun Hussein Onn Malaysia and Ministry of Science, Technology and Innovation for financial support and providing necessary infrastructure to carry out research work.

References

- [1] Malek N. M., Hussin A. (2012). Pemilikan Rumah dalam Kalangan Masyarakat Bandar Berpendapatan Sederhana dan Rendah di Malaysia. Pusat Pengajian Sains Kemasyarakatan USM (Universiti Sains Malaysia), Pulau Pinang
- [2] Zulkepli, M. (2011). Pembangunan Model Penentuan Keperluan Perumahan. Kajian Kes: Johor Bahru, Malaysia. Malaysia: Penerbit Universiti Tun Hussein Onn Malaysia.
- [3] Rosadah dan Khadijah. Kajian Ke Atas Keupayaan Golongan Berpendapatan Sederhana Dalam Memiliki Rumah di Kawasan Johor Bahru, Malaysia : Penerbit Universiti Teknologi Malaysia; 2002.
- [4] United Nation (1977), The Social Impact of Housing: Goals, Standards, Social Indicators and Population Participation.
- [5] Ministry of Housing and Local Government Malaysia (1998). Buletin Perangkaan Perumahan 1998, Percetakan Nasional Berhad, Kuala Lumpur.
- [6] Government of Malaysian, (1996). The Seventh Malaysia Plan, 1996-2000. Kuala Lumpur: Percetakan Nasional Malaysia Berhad.
- [7] Government of Malaysia. (2001). The Eight Malaysia Plan. Percetakan Nasional Malaysia Berhad, Headquarters, Kuala Lumpur., 502-505.
- [8] Government of Malaysia. (2006). The Ninth Malaysia Plan. Percetakan Nasional Malaysia Berhad, Headquarters, Kuala Lumpur., 469-473.

- [9] Economic Planning Unit (2015). Eleventh Malaysia Plan, Strategy Paper 6: Providing Adequate and Quality Affordable House. Prime Minister's Department.
- [10] Bernama. (2013). PAM : Binalah Lebih Banyak Rumah Kos Sederhana. Kuala Lumpur: Sinar Harian. Retieve on September 30, 2013 from www.sinarharian.com.my
- [11] Ishak, S. R. (2014). KDNK S3 5.6%. MyMetro. Retrieved from <http://www.hmetro.com.my/node/9176>
- [12] Idrus, N., & Siong, H. C. (2008). Affordable And Quality Housing Through The Low Cost Housing. In Seminar of Sustainable development and Governance.
- [13] Lee, L. (2014). Catch-22 in the property market?. The Stars Online. Retrieved from <http://www.thestar.com.my/business/business-news/2014/09/13/catch22-in-the-property-market-calls-for-return-of-dibs-for-firsttime-buyers/>
- [14] Said, R., Moses, B., & Wei, L. C. (2004). Move by State to Sell Low-cost House to All Criticised. New Straits Times, p. 14. Selangor.
- [15] Aziz, W. N. A. W. A., Hanif, N. R., & Singaravello, K. (2011). Affordable Housing Within The Middle Income Households In Malaysia - Challenge to Enter Homeownership. Australian Journal of Basic and Applied Sciences, 5(8), 258–267.
- [16] Manaf, A. A., Talibin, N. A., & Husain, M. Y. (2012). Welfare Issues in the Context of the Residential Property Overhang. In Persidangan Kebangsaan Ekonomi Malaysia ke VIII (PERKEM VII) (Vol. 1, pp. 192–201). Ipoh, Perak.
- [17] Utusan Online (2015). Harga hartanah 2015 dijangka naik. Retrieved on Februari 2, 2015 dari www.utusanonline.com.my
- [18] Tahir R. dan Abdul Rahman Z. (1985). Rumah Murah – Pengaruh Kawalan Kepadatan Terhadap Nilai Tanah, Ketinggian Bangunan dan Pilihan Kos dalam Konteks Kuala Lumpur. Jabatan Perancang Bandar dan Wilayah Kajian Senibina, Perancangan dan Ukur, Institut Teknologi Mara, Shah Alam, Selangor.
- [19] Vajiranivesa, P. (2008). A Housing demand model : A case study of the Bangkok Metropolitan Region, Thailand. Royal Melbourne Institute of Technology
- [20] Yunus, R dan Yang J. (2012). Critical Sustainability Factors in Industrial Building Systems. Construction Innovation: Information, Process, Management, 12(4), 447-463.
- [21] Md. Sani N. (2007), *Kemampuan Pemilikan Rumah Kos Rendah di Kuala Lumpur*, Penerbit : Universiti Sains Malaysia.
- [22] Musa R. (1986). *Permintaan dan Penawaran Perumahan di Bandar - Bandar Besar di Lembah Klang: Perspektif dan Masalah*. Kajian Senibina, Perancangan dan Ukur. Jabatan Pengurusan Hartanah. Institusi Teknologi Mara, Shah Alam.
- [23] Daud A. (1994). *Rumah Kos Rendah: Permintaan Melebihi Penawaran serta Cara Mengatasinya*. Institusi Teknologi Mara: Tesis Diploma.
- [24] Awang Besar J., Fauzi R., Ghazali A. S., (2012). *Penilaian awal impak pelaksanaan Dasar Perumahan Negara terhadap sektor perumahan di Kuala Lumpur*. Pusat Pengajian Sosial, Pembangunan dan Persekitaran, Fakulti Sains Sosial dan Kemanusiaan, Universiti Kebangsaan Malaysia.
- [25] Tahir R. & Abdul Rahman Z.. (1985). *Rumah Murah – Pengaruh Kawalan Kepadatan Terhadap Nilai Tanah, Ketinggian Bangunan dan Pilihan Kos dalam Konteks Kuala Lumpur*. Jabatan Perancang Bandar dan Wilayah Kajian Senibina, Perancangan dan Ukur, Institut Teknologi Mara, Shah Alam, Selangor.
- [26] Esa, A et al. (2011). *The Impletetion of generic Skills at Technic Schools: Comparative Analysis in Different Platform* : Penerbit Universiti tun Hussien Onn Malaysia
- [27] Yunus, R dan Yang J. (2012). Critical Sustainability Factors in Industrial Building Systems. Construction Innovation: Information, Process, Management, 12(4), 447-463.