HOUSING CONDITIONS OF LOW-INCOME SETTLEMENTS IN MALAYSIA: A CONCEPTUAL EXPLORATION

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Abstract: *The government of Malaysia has been providing low-income settlements to ensure people have access to adequate housing. However, the housing conditions of low-income settlements are deemed inadequate even though basic amenities and facilities are provided, partly due to the lack of knowledge regarding the appropriate indicators for housing conditions of low-income settlements to match the socioeconomic factors of the occupants. Therefore, this paper attempts to explore the housing conditions dimension of low-income settlements. This study revealed that low-income settlements' housing condition is conceptualized as a composite of four dimensions, such as the physical aspect, facilities, location aspect, and social support. This paper provides relevant insight for local authorities and property developers in planning for the future development of low-income settlements in Malaysia.*

Keywords: *Housing Conditions, Low-income Settlement, Wellbeing*

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Introduction

Housing provides the essential basic needs of the shelter. It is included in the most important needs in the Maslow Hierarchy of Needs as it provides the essential basic needs of shelter and security (Mahdi and Purwanto, 2018). However, many citizens cannot afford to own a house (Stafiee, 2010). Therefore, the government provides various housing schemes for the lower-income group (Idrus and Siong, 2008). Public housing schemes are the government's initiative to ensure that the lower-income citizens live in a good housing condition by providing minimum acceptable standards of amenities and facilities within their residence (National Housing Policy, 2019). Despite all that, the residents' wellbeing and satisfaction are yet to be fulfilled due to the housing conditions of the urban poor in Malaysia, which fails to provide for its residents' physical, mental, and emotional health (Zainal et al., 2012).

Xie and Chen (2018) stated that the government bodies face difficulties in improving housing conditions of low-income settlements due to the socioeconomic factors of the low-income settlements' occupants as opposed to those who have better income and could do something to improve their housing conditions. Even though the government comes up with housing schemes, most of them are inadequate due to the lack of knowledge of variables that determine housing conditions (Wahi et al., 2018). Although housing condition is an important consideration that has to be taken into account as it affects the wellbeing and quality of life of the residents, previous research shows that there is a lack of evidence that identifies the

indicators that contribute to the housing condition of low-income settlements (Li et al., 2011; Zhang et al., 2018 and Wahi et al., 2018).

Literature Review
Housing

Housing is contemplated as a long-lasting item bought by users as a form of shelter or as an asset for investment to produce profit either in the form of rental or as capital gains (Chen et al., 2007). It is considered the second most important, after food, in necessities for human beings to live an adequate life in this world (Abdullah, 2008; Ismail et al., 2014). Bilal and Razak, 2018, states that housing is an elementary need in people's daily lives and is the primary setting for human beings that gives protection from the weather, provides a place to sleep, and a sense of wellbeing for its occupants. A home is more than just a tangible structure; it is also made up of the surrounding area's environment and within the house. It conveys a relationship between people and the environment (Turner, 1968).

Globally, being able to live in adequate housing is a basic right for everyone. The Habitat Agenda (1996), adopted by many countries worldwide, discussed adequate housing and their agreement that adequate housing is considered an elementary need for humans as it provides a healthy and productive environment for its inhabitants. They defined adequate housing as something more than just a shelter. Adequate housing here includes sufficient space, accessibility, security, structural stability, facilities, and sanitation. To achieve adequate housing, the housing conditions of a house must be at a certain point. It further discussed that it should comply with the World Health Organization (WHO) regulations, which include that all housings should provide security against communicable diseases, security against chronic diseases and injury, and reduce psychological and social stresses. (WHO) defined housing as a physical structure that gives shelter and protection, which is good for its occupants' physical and mental health.

Housing Condition

According to the Organization for Economic Co-operation and Development (OECD), good housing conditions are vital for its inhabitants' health and childhood development. Good housing conditions are when both the physical features of the property such as basic utilities and sanitization and the demographic features and location is in good condition. Both these features make a good housing condition as it makes up for what housing is described as by Turner,1968 and OECD. Based on the OECD's research on housing conditions, there is no universal standard that can be used to measure housing conditions. The housing condition concept is wide as it includes the physical features and the demographic features of the housing.

According to the American Public Health Association (APHA), healthy housing, or housings with good housing condition has the following characteristics:

a) Fulfills physical needs of the house, such as lower temperature inside the house than the temperature outside the house, good lighting, healthy ventilation, and lessens the noise from outside.
b) Fulfills psychological needs.
c) Protect the occupants from diseases by having clean water, a good sanitary system, and clean air.
d) Protect the occupants from disasters by having a strong foundation, good wirings to avoid fire, and stairs that are not steep.

Housing conditions are what the residents of a housing feel about it (Rahman and Rahdriawan, 2017). Lee et al., 2011 state housing conditions to be highly influenced by housing norms and housing constraints. Housing quality, size, and location also affect and make up a housing condition (Xie and Chen, 2018). However, there is no definite standard on housing conditions for developers, government, or housing authorities to adhere to, making it challenging to determine the housing condition of a settlement. Further, housing conditions are varied and are usually affected by corresponding factors (Saegert and Evans, 2003).

Housing Affordability

As adequate housing becomes more unlikely for a significant population of people in most countries, the awareness of housing affordability is taken more attentively globally (Tsenkova and French, 2011). Housing affordability is a term used to provide solutions, standards, and structure when planning housing policies and housing schemes. It is frequently used to show a household's affordability to own a house (Norazmawati, 2012). Housing affordability is one of the leading indicators that portray the socioeconomic stability and the development of a country. It is also used as a guideline to enable every category of an income earner, which includes the T20 group, M40 group, and B40 group, to own a house (Suhaida et al., 2010). Housing affordability is defined by Stone (2006) as a link between housings and humans. It is deemed as a household choice between housing and non-housing expenditures (Suhaida and Twail, 2010).

Stone (2006) defines housing affordability as an aspect of housing service concerning the users' capability and decision to own or purchase a house. Goh (2009) studies the spatial distribution of affordability issues and executes the difference between demand and supply of affordable housing to household income. Hancock (1993) states that it signifies a households' capability to fulfill housing expenditure without unreasonably limiting themselves to non-housing cost.

Bujang, Zarin, and Jumadi (2010) refer to affordability as an individual's capability to finance something. Housing affordability is when users can pay up to 30% of their household income, minus all expenditures in their working period, to buy or rent a house (Anirban et al., 2006; Bujang, 2006; Sani and Rahim, 2007). Occupants that pay more than 30% of their household income for housing may face complications to pay for other basic needs such as sustenance, apparel, transportation, and health care (Bujang, 2006; HUD, 2002).

Quan and Hill (2008) observe housing affordability from three points of view, which are purchase affordability, repayment affordability, and income affordability. Purchase affordability is when resolving whether a household has access to enough funding to purchase a house or not. Repayment affordability is the household's ability to face the burden of paying the mortgage for the house, whereas income affordability is the ratio measurement of the house price to the household income of the purchaser.

Research by Norizan et al. (2016) finds that housing affordability usually depends on five socioeconomic factors: household income, household expenditures, type of employment, level of education, and household savings. These factors contribute to the affordability of the people to own houses. It was discussed that even though a household's income increases, it does not guarantee an increase in the affordability of owning a house.

Low-Income Settlement

Charoenkit and Kumar (2014) and Olanrewaju et al. (2015) states that low-income housing is known in several terms, such as affordable housing, social housing, and public housing. Low-income housing is defined as housing for households eligible for a certain amount of social security benefit (Statistics Netherlands, 2001). The book Technologies for the Provision of Basic Infrastructure in Low-Income Settlements expresses ''low-income' as a meaning that already has opposing variables like 'high-income.'

Many of the occupants of low-income housing used to be squatters (Abdullah et al., 2017). As the city area has the most economic activities, rural communities migrate to the cities to get a good occupation. This has led to increased squatters and cities' overcrowded situation (Shresta et al., 2014). The increasing number of squatters made it difficult for the authorities to control illegal land occupation (Sufian, 2009). Therefore in 2001, the "Zero Squatter Policy" was introduced where the plan was that every household would live in proper housing (Abdul Aziz, 2012). The squatters were relocated to low-cost housings. This was done in several ways, including in-situ relocation, where the squatter settlement sites were demolished, and low-cost housing was built at the site. Squatters were also relocated to low-income settlements within the election zone (Abdullah et al., 2017). These are all considered as the upgrading of low-income housing.

Low-income settlements are for households that otherwise could not afford adequate housing without the help of the government or NGO's (Johnston and Neil, 2008). Low-income settlements help the lower-income group access adequate housing with less financial burden (Milligan et al. 2004). This housing is considered price-appropriate for the lower-income group to manage the non-housing expenditure and their basic needs (Johnston and Neil, 2008).

Low-income settlements are usually made up of lower quality materials and components to be sold at a lower price. This is evident from the complaints, annoyance, and dissatisfaction of the low-income settlements' occupants (Olanrewaju et al., 2015). Low-income settlements in Malaysia are priced at less than RM300,000.00, made for the lower-income group whose median monthly household income is RM3000.00 (Nor et al., 2018). When the mortgage repayment cost of housing is not more than 30% of the lower-income group or the B40, it is considered as low-income housing. This includes the income after expenditures such as tax, utilities, and maintenance (US Department of Housing and Urban Development, 2006). A median multiplier is also used to measure whether housing is to be considered low-income housing. Median house price is compared to the median household income based on an annual Housing Affordability Survey (Demographia, 2015). Bujang (2006) agrees that for housing to be considered affordable and suitable for the lower-income group, the allocated amount of housing expenses should be no more than 30% of the household's monthly income, minus non-housing expenditures.

Program Perumahan Rakyat (PPR)

The Third Malaysian Plan 1976-1980 focuses on eliminating poverty in the country, and in acting onto the plan, various housing schemes were provided as homeownership could reduce the number of poverty (Fallahi, 2017). In 1996, the government came up with a "Zero Squatter Policy" to eradicate poverty and to ensure adequate housing for everyone. In 1998, "Program Perumahan Rakyat" (PPR) was introduced by the National Economic Action Council in cities and towns all over the country. It is a housing scheme that offers affordable, adequate housing for the lower-income group (B40) and relocates squatters. Some are built on the squatter's site

itself, and the squatters there will move into the housing provided, and some are built someplace else where the squatters who are in the same election area will be relocated there.

Program Perumahan Rakyat (PPR) is a state-funded project and is implemented by the State Housing and Local Government Department. It is managed by the State Secretary (Housing Division). All housing units of the PPR scheme comply with the National Housing Standards design of Low-Cost Housing (Rahim, 2011). It is made to provide adequate housing units equipped with basic facilities and public amenities at a reasonable price (KPKT, 2018). There are two types of programs to this scheme, namely Owned PPR and Rented PPR.

The government introduces Owned PPR to assist the lower-income group (B40) in owning a house at a reasonable price. The housing units for Owned PPR are priced at RM35,000.00 per unit in East Malaysia and RM42,000.00 per unit in Sabah and Sarawak. As for the Rented PPR program introduced in February 2002, it was implemented so that the lower-income group (B40) and squatters could afford to live in adequate housing by renting the housing unit at a low price of RM124.00 per month per unit (KPKT, 2018).

Conclusion
This research discussed theories and concepts of housing conditions of low-income settlements. As summary, the physical aspect, facilities, location aspect, and social support are the key factors contributing to housing conditions of low-income settlements that must be taken into consideration by the authorities when developing and planning housings for the lower-income group. The study discovered that housing conditions of low-income settlements should be initiated at local scales. The future direction of the research is to produce indicators of housing conditions in relation to economic and social aspects.

Acknowledgment

References

Abdullah, Y. A., Kuek, J. N., Hamdan, H., & Zulkifli, L. M. (2017). *Combating squatters in malaysia: do we have adequate policies as instrument? 15*(2), 25–36.

Bilal, M., & Razak, D. A. (2018). *Issues and challenges in contemporary affordable public housing schemes in Malaysia Developing an alternative model*. https://doi.org/10.1108/IJHMA-11-2018-0091

Bujang, A. A., Zarin, H. A., & Jumadi, N. (2010). *THE RELATIONSHIP BETWEEN DEMOGRAPHIC FACTORS AND. 5*(1).

Charoenkit, S., & Kumar, S. (2014). Environmental sustainability assessment tools for low carbon and climate resilient low- income housing settlements. *Renewable and Sustainable Energy Reviews*, *38*, 509–525. https://doi.org/10.1016/j.rser.2014.06.012

Choy, L. T. (2014). *The Strengths and Weaknesses of Research Methodology: Comparison and Complimentary between Qualitative and Quantitative Approaches*. *19*(4), 99–104.

Clef, T. (2013). Exploratory Data Analysis in Business and Economics: An Introduction Using SPSS, Stata, and Excel. Springer Science and Business Media.

Hatkar, K., & Hedaoo, N. (2016). Delay Analysis By Using Relative Importance Index Method in Infrastructure Projects. *International Journal of Civil Engineering & Concrete Structures*, *1*(3). Retrieved from www.trpubonline.com

Howden-Chapman P Housing standards: a glossary of housing and health.Journal of Epidemiology & Community Health 2004;58:162-168

Idrus, N., & Siong, H. C. (2008). Affordable And Quality Housing Through The Low Cost Housing. *Affordable And Quality Housing Through The Low Cost Housing Provision In Malaysia*, (June 2008), 1–21.

Jerusalem, E. (2011). *Housing conditions*. 81–103.

Johnston, K., & Neill, P. O. (2008). *<Housing Afordability Landcom_Report_2008-07-21.Pdf>*. (July).

Lee, S., Parrott, K. R., & Ahn, M. (2012). Exploring Housing Conditions of Low-Income Minorities in the Southern United States. *American Housing Survey User Conference*, *14*(1), 73–98.

Norizan Rameli, Dani Salleh, M. I. (2016). Homeownership Affordability: An Analysis of Socioeconomic Factors. *Malaysian Journal of Social Sciences and Humanities*, *6*(6), 10–16.

Oudin, A., Richter, J. C., Taj, T., Al-Nahar, L., & Jakobsson, K. (2016). Poor housing conditions in association with child health in a disadvantaged immigrant population: A cross-sectional study in Rosengård, Malmö, Sweden. *BMJ Open*, *6*(1). https://doi.org/10.1136/bmjopen-2015-007979

Perumahan, B., & Baitul, B. (2018). *STUDI EXPLORATIF TINGKAT KEPUASAN PENGHUNI TERHADAP KONDISI yang diberikan kepada konsumen hal ini dikarenakan konsumen menganggap harganya yang cukup murah sesuai dengan kondisinya . Dan kesimpulan nya bahwa responden sebagaian besar puas dan disarankan . 4*(1), 33–37.

Preece, J., Hickman, P., & Pattison, B. (2019). The affordability of "affordable" housing in England: conditionality and exclusion in a context of welfare reform. *Housing Studies*, *0*(0), 1–25. https://doi.org/10.1080/02673037.2019.1653448

Rahman, S., & Rahdriawan, M. (2017). Pengaruh Kondisi Perumahan Terhadap Kepuasan Penghuni Di Perumahan Grand Tembalang Regency Semarang. *Jurnal Pengembangan Kota*, *5*(1), 69. https://doi.org/10.14710/jpk.5.1.69-77

Sani, N. M. (2015). Relationship between housing affordability and house ownership in Penang. *Jurnal Teknologi*, *75*(9), 65–70. https://doi.org/10.11113/jt.v75.5236

Statistics Netherlands. (2001). Housing conditions of low-income households. *Journal of Housing and Built Environment*, *16*, 107–110.

Suhaida, M. S., Tawil, N. M., Hamzah, N., Che-Ani, A. I., & Tahir, M. M. (2010). A conceptual overview of housing affordability in Selangor, Malaysia. *World Academy of Science, Engineering and Technology*, *72*(July 2018), 45–47.

Syafiee Shuid. (2010). Low Income Housing Allocation System in Malaysia: Managing Housing Need for the Poor. *22nd International Housing Research Conference*, 4–7.

Wahi, N., Mohamad Zin, R., Munikanan, V., Mohamad, I., & Junaini, S. (2018). Problems and Issues of High Rise Low Cost Housing in Malaysia. *IOP Conference Series: Materials Science and Engineering*, *341*(1). https://doi.org/10.1088/1757-899X/341/1/012027

Xiao, Y., Miao, S., Sarkar, C., Geng, H., & Yi, L. (2018). Exploring the impacts of housing condition on migrants' mental health in nanxiang, shanghai: A structural equation modelling approach. *International Journal of Environmental Research and Public Health*, *15*(2), 1–14. https://doi.org/10.3390/ijerph15020225

Xie, S., & Chen, J. (2018). Beyond homeownership: Housing conditions, housing support and rural migrant urban settlement intentions in China. *Cities*, *78*(September 2017), 76–86. https://doi.org/10.1016/j.cities.2018.01.020

Zainal, N. R., Kaur, G., Ahmad, N. 'Aisah, & Khalili, J. M. (2012). Housing Conditions and Quality of Life of the Urban Poor in Malaysia. *Procedia - Social and Behavioral Sciences*, *50*(July 2012), 827–838. https://doi.org/10.1016/j.sbspro.2012.08.085

Zhang, F., Zhang, C., & Hudson, J. (2018). Housing conditions and life satisfaction in urban China. *Cities*, *81*(September 2017), 35–44. https://doi.org/10.1016/j.cities.2018.03.012