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> SUSTAINABLE BUILT **ENVIRONMENT**

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FACTORS CONTRIBUTING TO RESIDENTIAL OVERHANG IN JOHOR BAHRU

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ABSTRACT

One of the most well-known property issues in Malaysia is property overhang. Johor Bahru is one of the states in Malaysia with the highest property overhang, along with Penang and Selangor. Several factors, such as price, location, housing loan, building, feasibility study, public facilities & amenities, and income level factor contribute to residential overhang has been determine based on a brief literature review from previous studies. This study aims to determine the factors that contributing to residential overhang in Johor Bahru and to examine the most important factors contributing to residential overhang in Johor Bahru. Then, the quantitative method of research was employed, and data were gathered through the use of judgmental sampling. In this study, an online questionnaire was distributed to practitioners in Johor Bahru who were familiar with the residential overhang issue, including Registered Valuers, Registered Estate Agents, and Housing Developers. 67 respondent has provided responses to the survey. Hence, the research data were analysed using SPSS Software and Relative Importance Index (RII) in order to reach the findings. The results indicate that the price factor, the income level factor, and the housing loan factor are the top three factors contributing to residential overhang in Johor Bahru. By identifying the factors that contribute to the residential oversupply in Johor Bahru, housing developers, the government, and future researchers will be able to take them into account for future reference and enhancement.

Keywords: property overhang, oversupply, residential.

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INTRODUCTION

National Property Information Centre (NAPIC) defines 'overhang' as a property for which a Certificate of Fitness for Occupancy (CFO/CCC) or Temporary Fitness Certificate for Occupation has been issued, but which remains vacant after at least nine months of marketing. Consequently, the issue of property overhang has been a cause for concern, and there have been numerous reports on the overhang of residential property, particularly strata residential property, in the news recently. According to the Property Market Report Quarter 1 2022 update by the National Property Information Centre (NAPIC), Johor has the highest residential overhang in Malaysia with 5,992 units, followed by Penang (5,816 units) and Selangor (5,221 units).

Few studies are being conducted to determine the factors influencing property overhang issues on affordable houses and landed residential in the states of Johor and Selangor. The findings of the study indicate that environmental, economic, and psychological categories are the primary contributors to property overhang in that area. Thus, this study will examine the most significant factor contributing to residential overhang in Johor Bahru from the perspective of Registered Valuers, Registered Estate Agents, and Housing Developers in the Real Estate industry. Because of the nature of their occupation, they have a deeper understanding of the residential overhang issue in Malaysia.

LITERATURE REVIEW

Factors Contributing to Residential Overhang.

Price Factor

One of the factors that contribute to residential overhang is the price factor. A homebuyer reluctance to proceed with the purchase of a house is caused by the expensive price of residential which resulting in residential overhang. Expensive price does contribute to residential overhang. This is supported by the fact that both (Ishak *et al.*, 2019) and (Olanrewaju & Tan, 2018) discovered that expensive housing price

are the primary cause of affordable property overhang. A Karim *et al.* (2017) also state that if a home's price is too high, it will remain unsold.

According to research conducted by Salfarina *et al.* in 2010, the majority of respondents concurred that the price of residential property in Malaysia's urban areas exceeds their income and purchasing power. This occurred because of the fact that Malaysia, like other developed nations, faces a critical global issue regarding the depletion of the most important resource which is land. This is why multiple land uses are increasing and high-density growth areas such as Penang, Johor Bahru, and Kuala Lumpur are experiencing land scarcity which resulting in higher property prices.

Location Factor

Location factor is one of crucial factor in housing development. Nonstrategic location could lead to residential overhang. This can be supported by the findings of N Ab Rahim *et al.* (2019), who discovered that the unattractive location aspect of affordable housing projects, such as far distance from work and inadequate transportation connectivity, has led to an increase in unsold properties. Ishiyaku, Kasim, and Harir also discovered in 2017 that the property's location can be used as an indicator to determine the time and distance from traveling to school or work, and that individuals prefer to purchase a residence close to their place of employment in order to save money on transportation. In 2011, N.I. Mohamad *et al.* stated there are few characteristics of strategic location. The property's characteristics are its proximity to the main road, public transportation, a parking area, and main public premises such as banks and supermarkets. Consequently, if the residential area is situated in a location that is far from all the characteristics, the residential will remain unsold.

Housing Loan Factor

According to Bujang *et al.* (2015), the purpose of housing loans provided by financial institutions is to lend capital to those who want to purchase a property but cannot afford it. N Ab Rahim *et al.* (2019) state that the inability to secure end financing is another factor that contribute to residential overhang. Due to strict mortgage loan policies, a high rejection rate, and other factors, housing loan issues can also contribute to the residential oversupply problem. This statement is supported by A. Karim *et al.*'s 2017 conclusion that housing loan restrictions are the primary

contributor to residential overhang. 78% of respondents concur that it is difficult to obtain a housing loan due to strict guidelines, as stated by Bagutaya in 2016.

Building Factor

Based on previous research conducted by Ishak *et al.* on the year 2019, the building factors can be characterized as the quality and design of a home. This statement is supported by N.I. Mohamad *et al.* (2011), who stated that building interiors must be both attractive and functional. The concept of the housing development will influence the homebuyer decision to purchase a home, but if the house criteria do not satisfy the homebuyer requirements, it will likely increase the residential overhang. Before purchasing a home, a customer will consider factors such as the size of the unit, the number of bedrooms, and the availability of parking. According to Tey *et al.*, in 2022, the building factor for non-affordable housing is still questioned because some high-income prospective purchasers are concerned about the quality and design of residential property in relation to the price of the property.

Feasibility Study

Mustapha and Cheong (2006) state that a feasibility study is an examination of various factors that may influence the future development of a proposed project. In addition, the Association of Valuers, Property Managers, Estate Agents and Property Consultants in the Private Sector Malaysia (PEPS) in 2017 believed that the high unsold property was due to the factors of indiscriminate building by developers, a lack of market research and financial feasibility studies, and a lack of coordination on planning among local authorities, indiscriminate approvals by multiple local governments, and delays in the gazetting of local plans, a lack of coordination on planning among local authorities. This statement is supported by the Designblendz Team for the year 2021, which states that it is conceivable that demand and supply forecasts for specific types of property will be inaccurate if a feasibility study is not conducted.

Public Facilities and Amenities Factor

The importance of public facilities and amenities to homebuyer cannot be overstated because it one of the factor that contribute to residential overhang. It is due to the fact that the homebuyer will consider the public facilities and amenities before purchasing

a house. The findings of Zainon *et al.* (2017) indicate that the availability of public facilities and amenities affects homebuyer decisions which shows that the availability of public amenities able to influence homebuyer purchasing decisions. This statement is supported by other research indicating that the availability of numerous public facilities made it easier and quicker for households to complete their daily tasks (Tey *et al.*, 2022). Thus, an absence of public facilities and amenities in the vicinity of the housing development could result in fewer residential units being sold.

Income Level Factor

The income level also indicates the homebuyer affordability. According to Ahmad Ariffin *et al.* in 2010, the high rate of urban growth was associated with migration, an increase in population size, and an increase in income level, all of which contributed significantly to the housing market condition. This is supported by the situation od changing housing market conditions caused by rising demand and fluctuating prices. Affordability has an impact on the purchase of residential property. A prospect homebuyer with a low income level is unable to buy a house due to low income level factor and they tend to rent instead of buying a house. Hence, the residential remain unsold due to low income level as to purchase a house. Indeed, income level and affordability are essential for purchasing and owning a home. (Bujang, 2006). Previous research has also indicated that the likelihood of respondents purchasing a home at a higher price is proportional to their income. This may be a reflection of their level of wealth and affordability (Ahmad Ariffin *et al.*, 2010).

Table 2.1: Matrix Table

Author	Publication Year	Factor	Price	Location	Housing Loan
Tey et al.	2022		/	/	/
Ishak et al.	2019		/		
N Ab Rahim et al.	2019		/	/	/
Olanrewaju et al.	2018		/		/
A Karim et al.	2017		/		/
REHDA	2017				/
Zainon et al.	2017			/	
Ishiyaku <i>et al.</i>	2017			/	
Baqutaya	2016				/
N.I Mohamad et al.	2011		/	/	/

Author	Publication Year	Factor	Building	Feasibility Study	Public Facilities & Amenities	Income Level
Tey et al	2022		/	/	/	
Ishak et al.	2019		/		/	
N Ab Rahim et al.	2019		/	/		/
Olanrewaju et al.	2018		/			
Olanrewaju et al.	2017				/	
Zainon et al.	2017				/	
PEPS	2017			/		
A Karim et al.	2017			/		
N.I Mohamad <i>et</i> <i>al.</i>	2011		/	/	/	
Wang et al.	2011					/
Ahmad Ariffin et al.	2010					/
Mustapha & Cheong	2006			/		
Bujang et al.	2006					/

RESEARCH METHODOLOGY

This study has used a quantitative methodology which include pilot study, reliability test and online questionnaire tools in data collection. There are 20 respondents who has same characteristic with actual respondents but they are from different state and district has answered the questionnaire for pilot study test as to test the reliability and validity of the question. Furthermore, Slovin's formula has been adopted as to calculate the sample size. The total population of the selected professionals who are Registered Valuer, Registered Estate Agent and Housing Developer in Johor Bahru were 164, the minimum respondents were 62 and and the maximum were 91

respondents. Hence, the total 67 respondents are sufficient to be analyzed. Lastly, the online questionnaire consisting respondent's demographic (Section A) and factors contributing to residential overhang (Section B). Likert scales has been implemented with 1 'Strongly Disagree' and 5 'Strongly Agree'.

Data Analysis

The data collected through online questionnaire has been analyzed using descriptive design analysis and Reliability Importance Index (RII). This analysis is important in order to examine the most important factors contributing to residential overhang in Johor Bahru.

RESULT AND DISCUSSION

The majority of the respondents were male and their age is within 36 to 40 years old. Majority of the respondents are Housing Developer. Then, the data collected through online questionnaire that has been distributed to the selected practitioner in Johor Bahru has been analyzed using descriptive research design and Relative Importance Index (RII) using SPSS software as to examine the most important factors contributing to residential overhang in Johor Bahru. All the result has been tabulated and will be shown in this section.

Cronbach's Alpha

Table 4.1: Reliability Statistic Table

Reliability Statistics				
Cronbach's Alpha	N of Items			
0.961	34			

The table above shows that the Cronbach's Alpha reliability test of Section B for this survey is 0.961. The result is more than 0.7 which is excellent and it shows the questionnaire can be distributed to the actual respondent.

Relative Importance Index Analysis

Table 4.2: Rank Analysis Table

Factors	Rank	Relative Importance Index (RII)
Price	1	0.8688
Income Level	2	0.8631
Housing Loan	3	0.8508
Feasibility Study	4	0.8472
Location	5	0.8120
Public Facilities & Amenities	6	0.8000
Building	7	0.7617

The rank analysis table above shows the average of Relative Importance Index (RII) of each factor. The top three factors listed in the summary above are regarded as the most significant contributors to residential overhang in Johor Bahru. According to the data in the table above, the factor with the highest Relative Importance Index (RII) is price. Ishak *et al.* (2019) and Olanrewaju & Tan (2018) provide evidence that expensive house prices are the primary cause of an affordable property overhang, proving this finding A Karim *et al.* (2017) state that if a house price is too high, it will remain unsold.

Furthermore, the income level factor is the second factor with the highest Relative Importance Index (RII) in the table above. This is supported by previous research indicating that the level of affordability influences the decision of homebuyer to purchase a home. Indeed, income level and affordability are essential for purchasing and owning a home (Bujang, 2006). Therefore, low income level contributes to the residential overhang in Johor Bahru.

Lastly, the housing loan factor has the third highest Relative Importance Index (RII) score in the ranking analysis table. Housing loan is the third most important contributors to Johor Bahru residential overhang. This is supported by the findings of N Ab Rahim *et al.* (2019), who found that the inability to secure end financing is another factor that cause the residential overhang issue. Hence, Karim *et al.* (2017)

also demonstrate that this statement is true when housing loan restrictions are the primary contributor to residential overhang.

CONCLUSION

As a conclusion, this study has bring several key findings in order to determine the factors contributing to residential overhang in Johor Bahru. In order to achieve the first objective, a detail literature review from previous research has been carried and the factor were price, location, housing loan, building, feasibility study, public facilities & amenities and income level. Moreover, the data collected from distributing the online questionnaire to Registered Valuer, Registered Estate Agent and Housing Developer in Johor Bahru has been analyzed using Relative Importance Index (RII) in order to achieve the second research objective, Hence, the data shows that price, income level and feasibility study factors consider the most important factors contributing to residential overhang in Johor Bahru.

In addition, this study also can ensure the Housing Developer to consider the house price, income level of homebuyer and feasibility study factors before proposing the housing development project in Johor Bahru. This will help to reduce the residential overhang issue in Johor Bahru because the developer able to supply a residential that matched the homebuyer demand's. Besides, through this study, the government also can play their role in order to overcome this issue by regulate the law or provide new policy that can reduce the strictness of the housing loan or other alternatives way in order to help Malaysian residents to own a house as according to the most important factors that contribute residential overhang in Johor Bahru

Lastly, this study also can give benefit to the future researcher in term of reference and future research on the same issue. They can do the future research at another state that the residential overhang issue is concerning such as Penang and Selangor.

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