A Thematic Review on Factors Influencing Property Overhang in Residential Properties in Malaysia

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Abstract

Unsold residential units more than nine months after launch are known as an overhang. Numerous factors influencing property overhang have been discovered. Hence, this paper adopts a thematic review based on the factors influencing property overhang from 2014 to 2023. The approach of this paper involved a comprehensive review paper on factors influencing property overhang and analysis using thematic review. The findings revealed several themes in factors influencing property overhang based on the pattern highlighted in the literature. The outcomes are expected to benefit the direction of future research and to assist the future solutions in property overhang in Malaysia.

Keywords: thematic review; property overhang; property overhang pattern; Malaysia

1.0 Introduction
The property market, particularly overhang in residential and serviced apartments, dramatically impacts the market performance. Property overhang is defined as a residential property overhang when the unit receives its certificate of completion and compliance (CCC) but remains unsold for over nine (9) months after it is launched (NAPIC, 2023). The property market has gradually increased in 2023, higher after the downturn in 2020 due to the Covid-19 pandemic. A total of 399,008 transactions worth RM196.83 billion were recorded, each showing an increase of 2.5% and 9.9% respectively compared to 2022, which recorded 389,107 transactions worth RM179.07 billion. The residential sub-sector led the overall property market, with a 62.8% contribution in volume. This was followed by agriculture (19.0%), commercial (10.1%), development land and others (6.1%) and industrial (2.0%). Similarly in value, residential took the lead with a 51.3% share, followed by commercial (19.5%), industrial (12.2%), agriculture (9.5%), development land and others (7.5%). The issue of overhang has become everyday news, especially in property portals. Even though, the overhang statistic revealed by the National Property Centre (NAPIC) in 2023 shows a decrease in the property overhang.

Consequently, this phenomenon will influence the overall economic activities and other related real estate development and not help the economy as the unproductive capital tied up in the unsold units is not creating any rolling economic effect while impacting the nearly 150 industries that are related to the real estate sector (Ng, 2020). Hence, this paper aims to identify the factors influencing property overhang raised in the literature and their pattern from 2014 to 2023. Previous research papers that deliberate on factors influencing property overhang in Malaysia are inadequate. The existing factors of overhang occurring in residential and serviced apartments in Malaysia have been retrieved from previous research and are likely to be discussed in this paper. Nevertheless, the factors overhang can be differences between landed and strata residential properties.

2.0 Literature Review
The total overhang units were undulated from the year 2019 to 2023. In 2022, total residential and serviced apartments overhang units were 51,724, and the amount is slightly down in 2023, where the total units are 46,641 for a value of RM34.31 billion.

Table 1. Total overhang units and value for 5 years from 2019-2023 for residential and serviced apartments

	2019	2020	2021	2022	2023
Total units	47,806	53,171	61,158	51,724	46,641
Value (RM Billion)	33.86	39.68	43.24	38.6	34.31

(Source: NAPIC, 2023)

The residential overhang situation improved as the numbers continued to reduce as compared to the previous year. There were 25,816 overhang units worth RM17.68 billion

recorded in Q4 2023, reduced by 7.0% and 4.0% in volume and value respectively against Q4 2022 (27,746 overhang units worth RM18.41 billion). Perak recorded the highest number of overhang units in the country with 4,598 units, accounting for 17.8% of the national total. They were followed by Johor (4,228 units), WP Kuala Lumpur (3,535 units), Selangor (3,405 units) and Pulau Pinang (3,001 units). WP Kuala Lumpur and Selangor recorded the highest value with RM3.63 billion for each state, followed by Johor (RM3.40 billion) and Pulau Pinang (RM2.61 billion). Condominiums/ apartments formed 60.5% (15,606 units) of the national total overhang, followed by terraced houses (24.3%; 6,279 units). Condominium/apartment units in four major states, specifically in Johor Bahru, Gombak, Timur Laut, and Barat Daya District, as well as in Mukim Section 1-100 and Petaling, WP Kuala Lumpur dominated the overhang units, accounting for 27.4% (7,079 units). Meanwhile, terraced houses in Perak, mostly in Hilir Perak and Manjung dominated the terraced houses overhang units formed the remaining 10.9% (2,806 units) of the national total. Thus, the serviced apartment overhang segment improved with 20,825 overhang units worth RM16.63 billion, down by 13.1% in volume and 17.7% in value against 2022 (23,978 units with a value of RM20.19 billion). By price range, most of the overhang fell in price brackets above RM500,000 to RM1 million, accounting for 61.4% (12,785 units) of the total, followed by above RM1 million, which formed another 20.2% (4,204 units). By state, Johor recorded the highest serviced apartment overhang units with 56.2% share in volume (11,710 units) and 58.4% share in value (RM9.72 billion); almost all of these overhang units were in Johor Bahru District (11,681 units).

The growth in the 2023 property market is highly supported by the implementation of various government initiatives and assistance and improving labour market conditions. Several initiatives which outlined under Budget 2023 by the government to a certain extent helped improve property market activities such as full stamp duty exemption on instrument of transfer and loan agreement for the purchase of the first residential home priced up to RM500,000 by Malaysian citizens remained until 31 December 2025. Increase of stamp duty remission from 50% to 75% for the purchase of the first residential properties priced between RM500,000 to RM 1 million by Malaysian citizens and applicable for sale and purchase agreements executed until 31 December 2023. Also, full stamp duty exemption up to RM1 million and 50% stamp duty remission for the remaining balance on property transfers by way of love and affection between family members (father to child and grandfather to grandson). These initiatives are aimed at making homeownership more accessible (Adzhar et. al., 2021).

3.0 Materials and Methods

The thematic analysis process was conducted in the literature review using ATLAS.ti 23. According to Clarke & Braun (2013), thematic analysis is a method for identifying and analyzing patterns in qualitative data. There are six steps in conducting a thematic analysis which are (1) become familiar with the data, (2) generate initial codes, (3) search for suitable themes (4) review themes (5) define themes (6) writing-up. Table 2 represents the

implementation of thematic analysis in this research. Thus, identifying the pattern and form category is to understand the factors of property overhang publication patterns in Malaysia. Then, the findings from this research are recommendations for future research in property overhang.

Table 2. Steps for conducting thematic analysis in this research

Clarke & Braun (2013)	This research
Step 1: become familiar with the data	Step 1: repeatedly read and search keywords about the factors influencing property overhang.
Step 2: generate initial codes	Step 2: highlight and code every keyword found in the articles.
Step 3: search for suitable themes	Step 3: codes were separated, grouped, regrouped, and re-linked to assign the themes.
Step 4: review themes	Step 4: review and modify the codes with each theme and consider whether the codes are supported.
Step 5: refine themes	Step 5: repeatedly review the themes, check with academicians then finalize the themes.
Step 6: writing-up	Step 6: reporting a thematic analysis

(Source: Author, 2024)

The selection of literature was performed according to the selection criteria, which are (1) publications from 2014 – 2023; (2) having at least the keyword(s) property overhang or unsold unit; and (3) focusing on factors of property overhang in Malaysia. This research is limited to the context of Malaysia for the future direction of property overhang in the country. The initial search from reputable databases resulted in Table. 3. However, 34 articles were removed due to their uncertain results, not discussing property overhang in Malaysia and overlapping. Therefore, the final paper to be reviewed involves 22 articles (Fig. 1). While this research used articles from Scopus, Web of Science, and Emerald Insight databases, relevant publications from other sources were missed by chance.

Then, the 22 articles were uploaded into the final documents in the ATLAS.ti 23, and each paper was grouped into year of publication. The articles could be analyzed, and the discussion pattern could be seen throughout the year. Consequently, ATLAS.ti 23 helped with the thematic review process by hyperlinking the initial coding into themes.

Table 3. Search strings from Scopus, WoS and Emerald Insight

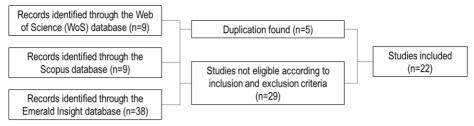| Scopus	property overhang OR "unsold hous*" OR "unsold high-rise" OR "unsold serviced apartment" OR "unsold property" AND "Malaysia"	9 results
Web of Science (WoS)	property overhang OR "unsold hous*" OR "unsold high-rise" OR "unsold serviced apartment" OR "unsold property" AND "Malaysia"	9 results
Emerald Insight	(content-type:article) AND (property overhang OR unsold hous* OR unsold high-rise OR unsold serviced apartment OR unsold property AND (Malaysia))	38 results

(Source: Author, 2023)

Fig. 1. Inclusion and exclusion criteria in the thematic review
(Adopted from M. Zairul, 2021)

4.0 Results and Discussion

4.1 Quantitative Findings
The data were extracted from the word cloud of the 22 articles discussed in this paper. Thus, the coding was highlighted and cross-tabulated by year of publication from 2014 to 2023 to determine the pattern of factors of property overhang in Malaysia. By the end of this section, this paper will reveal potential themes that have been discussed by respective authors on factors of property overhang in Malaysia. The main conclusion of the thematic review is reported in this section. As seen from Fig. 2, the word cloud from the 22 articles captured the term housing 3,161 times, while the term overhang has 305 repeats and the term unsold has 93 repeats.

Fig. 2. Word cloud generated from 22 articles
(Source: Author, 2023)

The initial coding resulted in 105 codes captured from 22 articles for example the ability to place a down payment, adverse credit history, no incentives, excessive supply, insufficient information for developers, shortage of affordable houses, housing quality, far from amenities, income inequality, lack of coordination on planning among local authorities,

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social stigma, poor living environment, lack of feasibility study, failing response from buyers, and others. There are multi-faceted factors of property overhang in the initial search. From Table 4, it can be seen that the pattern rarely increased by year. Meanwhile, in 2015 and 2023, no articles mentioned property overhang in Malaysia. The next phase is grouping the initial coding into categories, grouping a common code under a similar group. Some factors discussed in the literature overlap with similar groups.

Thus, the coding was categorized into 11 main categories, as shown in Table 5. Forty-five percent (10/22) of the articles highlighted financial/ economic factors and housing feasibility study factors in their papers. From the 22 articles, buyer preference and demand factors were the second highest highlighted, followed by factors on affordability and neighborhood. Other factors should have been discussed more among the researchers.

Table 4. The theme according to the year

No	Theme	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Financial/ Economic			/		/	/	/	/	/	
2	Information/ Data				/				/		
3	Affordability						/	/	/	/	
4	Buyer preferences				/		/	/	/	/	
5	Government policies and regulations	/					/	/	/		
6	Maintenance management	/					/		/	/	
7	Connection and distance	/					/	/	/		
8	Neighborhood	/		/			/		/	/	
9	Housing feasibility study	/		/	/		/	/	/	/	
10	Developer	/		/			/		/	/	
11	Demand	/		/			/	/	/	/	

(Source: Author, 2023)

Table 5. The tabulation of discussion by authors on factors of property overhang in Malaysia

No.	Theme	Author(s)
1	Financial/ Economic	Ab Rahim et al., 2019; Adzhar et al., 2021; Chuan & Abdul, 2016; Mohd et. al., 2022; Nor, 2021; Nur et al., 2020; Olanrewaju & Arazi, 2019; Soon & Tan, 2019; Wong et al., 2018; Yip et al., 2020.
2	Information/ Data	Adzhar et al., 2021; Olanrewaju & Tan, 2017; Yee et al., 2021
3	Affordability	Ab Rahim et al., 2019; Adzhar et al., 2021; Mohd et. al., 2022; Nur et al., 2020; Soon & Tan, 2019; Yee et al., 2021; Yip et al., 2020
4	Buyer preferences	Ab Rahim et al., 2019; Adzhar et al., 2021; Cheng & Ling, 2022; Nor, 2021; Nur et al., 2020; Olanrewaju & Arazi, 2019; Olanrewaju & Woon, 2017; Soon & Tan, 2019; Yip et al., 2020
5	Government policies and regulations	Ab Rahim et al., 2019; Adzhar et al., 2021; Lee, 2014; Olanrewaju & Arazi, 2019; Yip et al., 2020

6	Maintenance management	Ab Rahim et al., 2019; Adzhar et al., 2021; Cheng & Ling, 2022; Lee, 2014
7	Connection and distance	Ab Rahim et al., 2019; Adzhar et al., 2021; Hew et al., 2019; Lee, 2014; Nur et al., 2020; Soon & Tan, 2019
8	Neighborhood	Ab Rahim et al., 2019; Adzhar et al., 2021; Cheng & Ling, 2022; Hew et al., 2019; Lee, 2014; Olanrewaju & Tan, 2017; Soon & Tan, 2019
9	Housing feasibility study	Ab Rahim et al., 2019; Adzhar et al., 2021; Cheng & Ling, 2022; Kham et al., 2018; Lee, 2014; Mohd et. al., 2022; Olanrewaju & Tan, 2017; Olanrewaju & Woon, 2017; Sivadasan et al., 2020; Yip et al., 2020
10	Developer	Ab Rahim et al., 2019; Adzhar et al., 2021; Cheng & Ling, 2022; Lee, 2014; Puah et al., 2017
11	Demand	Adzhar et al., 2021; Lee, 2014; Mohd et. al., 2022; Olanrewaju & Arazi, 2019; Olanrewaju & Woon, 2017; Olanrewaju et al., 2022; Sivadasan et al., 2020; Yip et al., 2020; Zafirah et al., 2020

(Source: Author, 2023)

4.2 Qualitative Findings
In this section, findings obtained through a search from the database with highlighted keywords helped to narrow down the final themes which are financial or economic, information or data, affordability, buyer preferences, government policies and regulations, maintenance management, connection and distance, neighborhood, housing feasibility study, developer, and demand.

4.2.1 Financial / Economic
The imbalance in demand and supply can dampen economic growth due to a negative wealth effect. According to recent research, property overhang is influenced by financial/ economic factors. Integration of economic activities is essential for an effective housing finance system (Ab Rahim et al., 2019). The increase and substantial growth in house prices (Adzhar et al., 2021), especially price (escalating house prices in major cities) (Ab Rahim et al., 2019) make possible house price increase beyond the median price (Olanrewaju & Arazi, 2019) and indirectly can cause house price not match buyers' monthly income (Nor, 2021). Due to sudden high house prices (Yip et al., 2020; Soon & Tan, 2019; Adzhar et al., 2021; Wong et al., 2018), house buyers delayed their purchase decision (Chuan & Abdul, 2016) moreover no incentives (Nor, 2021) provided for buyers.

The ability of buyers to place a down payment (Soon & Tan, 2019) appears as a factor under financial, while an adverse credit history (Adzhar et al., 2021; Ab Rahim et al., 2019) poses a significant barrier. The inability of buyers to secure end financing, together with a lower margin of financing offered (Adzhar et al., 2021; Ab Rahim et al., 2019), further contributes to the property overhang. As highlighted by Soon & Tan (2019), prudent lending policy by banks is stricter for the application of mortgage loans, and the stringent criteria adopted by banks (Adzhar et al., 2021) are unable to obtain financing (Mohd et al., 2022) by buyers. The ineligibility of the buyers' income (Adzhar et al., 2021; Ab Rahim et al.,

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2019) is one of the reasons for rejection from financial institutions to finance house purchases by low-income applicants (Mohd et al., 2022). Many initiatives under financial/economic factors from the government have been introduced to increase home ownership.

4.2.2 Information/Data
Information and data provide insights into the market dynamics and help stakeholders make decisions, the detailed information helps in forecasting future trends and formulating strategies to balance supply and demand. The absence of accurate data for the developers (Yee et al., 2021; Adzhar et al., 2021) and insufficient information for developers are part of the cause of excessive supply of a wrong product developed by the developer or product mismatch (Adzhar et al, 2021), together with a lack of adequate information regarding design criteria (Olanrewaju & Tan, 2017) directly not attract buyers to buy a house because do not meet their preferences. Ensuring all relevant information is provided accurately and comprehensively can significantly improve the chances of selling a property. In other words, developers and approving authorities must learn about the property market (Adzhar et al., 2021). Therefore, adequate information for developers is needed to ensure a timely response to demand.

4.2.3 Affordability
Affordability (Adzhar et al., 2021; Ab Rahim et al., 2019) appears as one of the factors of property overhang. When properties are more affordable, more people can buy houses. Conversely, high house prices limit buyer accessibility which can cause more properties unsold. Hence, the lack of reasonable choices to possess property forces several Malaysians into the rental market and informal settlement that is drastically increasing because of increment of population and urbanization (Tobi et al., 2020). Housing prices beyond the affordability level (Adzhar et al., 2021; Yee et al., 2021; Mohd et al., 2020) seem to be a result of income inequality (Nur et al., 2020; Mohd et al., 2020) and the level of unaffordability (Soon & Tan, 2019) of house buyers. It happens due to the range of prices claimed to be affordable (Nur et al., 2020), which can create long-run housing unaffordability and a shortage of affordable houses (Yip et al., 2020). Thus, addressing affordability issues is crucial to reducing property overhang which development in urban areas must be monitored closely by local authorities. In addition, subsidies or tax incentives can mitigate overhangs and lead to a healthier real estate market.

4.2.4 Buyer Preferences
Buyers' preferences play a vital factor in property overhang because can dictate properties that are in demand, when the availability supply does not match these preferences, certain properties remain unsold. Buyers consider the availability of a road network and public transport (Olanrewaju & Arazi, 2019), housing quality (Olanrewaju & Woon, 2017), preferred locations, neighborhood (Nor, 2021), substandard housing specifications (Cheng & Ling, 2022), type of houses (Nur et al., 2020), design consideration (Ab Rahim et al.,

2019) and structure (Ab Rahim et al, 2019; Soon & Tan, 2019) before buying a house either for own stay or investment. Regarding structure mentioned by Ab Rahim et al. (2019), the most common structural attributes that can impact home-buying preferences are lot size, the number of bedrooms and bathrooms, and the presence of a garden in a house (Tan, 2011). Besides that, buyers' preferences are in conjunction with house prices (Yip et al., 2020). Thus, if the buyer does not meet their preferences, it can become unattractive to aspiring buyers (Adzhar et al., 2021), which directly can cause property overhang. Hence, sufficient information is needed to understand and align with buyers' preferences to manage and reduce property overhang.

4.2.5 Government Policies and Regulations

Adequate political support (Ab Rahim et al., 2019) and awareness of a variety of internal and external elements (interrelationships) is reflected in government policies and regulations on the role of the planning system (Adzhar et al., 2021). Regarding lack of coordination on planning among local authorities (Ab Rahim et al., 2019; Adzhar et al., 2021; Yip et al., 2020), indiscriminate approvals by various local authorities, and inefficiency in the planning and land approval system (Ab Rahim et al., 2019; Adzhar et al., 2021) and also delay in the gazette of local plans (Ab Rahim et al, 2019) is not good practice in planning system redirect on property overhang. Hence, policymakers in the responsiveness of the housing development practice (Lee, 2014) should not focus on technical requirements in the approval process at the local planning authorities and state authorities (Ab Rahim et al., 2019) in conditions getting approval from the government authorities (Mohd et al., 2022).

Government policies and regulations need to look once more at the matter of discontinuation of the Developer Interest Bearing Scheme (DIBS) (Adzhar et al., 2021), lengthy bureaucratic procedures (Mohd et al., 2022), the institutional framework of public housing (Ab Rahim et al., 2019) and due to Bumiputra quota (Ab Rahim et al., 2019; Adzhar et al., 2021; Olanrewaju & Arazi, 2019) to drive down poor integrated planning and implementation of affordable housing provision (Ab Rahim et al, 2019). This is a primary factor in stabilizing the housing property market. Effective government policies and regulations are essential for aligning market dynamics with societal needs, balancing the real estate market, and mitigating the risk associated with property overhang.

4.2.6 Maintenance Management

Maintenance management directly impacts the condition and attractiveness of properties in the market. The availability of competent personnel is concerned with increasing effective property management and good maintenance practices (Ab Rahim et al., 2019) in reducing property overhang. Consequently, technology, cost, time, and quality (Ab Rahim et al., 2019; Adzhar et al., 2021) are necessary to take a role in practicing maintenance management in the schemes to prevent inadequate maintenance (Cheng & Ling, 2022; Lee, 2014) and poor management of building facilities (Cheng & Ling, 2022). Hence, maintenance management is an ongoing management starting from the completion of the

building which makes the building remain in good condition and appeal to potential buyers. Maintaining an unsold property ensures the house remains an asset rather than becoming a liability.

4.2.7 Connection and Distance
Property overhang is tainted by connection and distance (Ab Rahim et al., 2019; Adzhar et al., 2021) and directly influences property demand and market dynamics. For instance, connectivity, distance and commuting time, low transport connectivity (Ab Rahim et al., 2019), far from amenities (Adzhar et al., 2021), located near main motorways (Hew et al., 2019), lack of amenities, facilities, and public transport (Nur et al., 2020; Adzhar et al., 2021; Lee, 2014) and unsuitable accessibility (Ab Rahim et al., 2019; Adzhar et al, 2021) is several reasons of overhang happened in the schemes and may struggle to attract interest buyers. Distance from workplaces (Ab Rahim et al., 2019; Adzhar et al., 2021) is part of the location schemes that are not ideal for the targeted buyers (Nur et al., 2020; Adzhar et al., 2021; Mohd et al., 2022; Soon & Tan, 2019; Lee, 2014; Ab Rahim et al., 2019). Hence, the overhang can be reduced if developers consider it seriously regarding the proximity of properties to desirable locations and buyers' accessibility.

4.2.8 Neighborhood
Demographics and neighborhoods (Soon & Tan, 2019; Olanrewaju & Tan, 2017; Ab Rahim et al., 2019) can also be factors of property overhang. Demographic shifts influence property preferences and demand patterns, there are potential unsold houses that involve demographic needs in those areas. The unplanned urbanization led to an unsafe and inconvenient environment for living owing to the problems that it created and added to the unpleasant urban environment (Tobi et al., 2020). Besides that, the choice of the neighborhood is critical to gaining community involvement (Ab Rahim et al., 2019) in terms of safety (Hew et al., 2019), health, and environment (Ab Rahim et al., 2019; Adzhar et al., 2021). If not, it can bring social stigma (Ab Rahim et al., 2019; Adzhar et al., 2021) and a poor living environment (Cheng & Ling, 2022), which means it did not successfully meet the quality living standard for inhabitants (Lee, 2014). Conversely, perceiving the neighborhood as unsafe appears to harm residents, including increased anxiety and decreased life satisfaction (Moller, 2005). Thus, varied aspects often face reduced demand and are considered when a buyer buys a house, including the neighborhood.

4.2.9 Housing Feasibility Study
A housing feasibility study assesses the viability of proposed housing projects and ensures new housing development aligns with actual market needs and conditions. A comprehensive feasibility study that suits buyer needs and preferences (Lee, 2014) is needed to prevent a mismatch between demand and supply (Mohd et al., 2020; Adzhar et al., 2021; Ab Rahim et al., 2019; Cheng & Ling, 2022). Hence, a lack of market and financial feasibility studies can foster a mismatch in product, location, and price (Ab Rahim et al., 2019; Adzhar et al., 2021) and pricing strategy (Sivadasan et al., 2020). As well, the

housing developments are implemented without user analysis (Olanrewaju & Woon, 2017) turn in oversupply in the areas with similar properties (Yip et al., 2020; Cheng & Ling, 2022; Adzhar et al., 2021) as a result of mismatch housing characteristics and potential buyer needs (Olanrewaju & Tan, 2017; Kham et al., 2018) which cause property overhang.

4.2.10 Developer

Several papers discussed developers' factors on property overhang. Developers responsible for constructing new properties based on market demand forecasts and investor expectations. Puah et al. (2017) mentioned contractors' irrational expectations. This implies that optimistic contractors will likely respond by initiating more construction supplies to satisfy the booming market. However, if developers misjudge market conditions or speculative demand and supply may lead developers to indiscriminate construction (Adzhar et al., 2021; Ab Rahim et al., 2019). This can lead increasing supply of properties beyond current or future demand. Therefore, massive housing construction (Adzhar et al., 2021; Lee, 2014) may influence weak quality control during construction (Lee, 2014). Besides that, Cheng & Ling (2022) highlighted that housing developers should be aware of the buyers' preferences because developers building the wrong product for a more significant profit margin (Adzhar et al., 2021) can contribute to property overhang.

4.2.11 Demand

Demand directly determines the absorption rate of available properties in the market. Failing response from buyers (Sivadasan et al., 2020; Yip et al., 2020; Adzhar et al., 2021) is a sign of overhang. Fulfilling market demand is crucial in avoiding property overhang because buyers use choice factors to define their housing demand (Olanrewaju & Woon, 2017). The majority of buyers will be in demand in terms of location, price range, property type (Adzhar et al., 2021) and also demand in terms of reduced commuting time and transportation cost (Olanrewaju & Arazi, 2019; Olanrewaju et al., 2022). It is shown beyond the price factor (Zafirah et al., 2020; Lee, 2014). Other than that, there is demand for affordable houses, but the problem is that more affordable houses are being built (Yip et al., 2020), and there is a need for more investment options (Mohd et al., 2020). Hence, the overhang can be reduced if developers monitor and respond to shift demand patterns to match market demand effectively.

5.0 Conclusion

This research highlights the pattern of factors of property overhang in Malaysia (Fig. 3) around 2014 to 2023 namely, financial or economic, information or data, affordability, buyer preferences, government policies and regulations, maintenance management, connection and distance, neighborhood, housing feasibility study, developer, and demand. The limitation in this paper discusses general factors occurring in property overhang even though there are different factors influencing overhang in landed and strata residential properties. In the context of Malaysia, more research needs to be conducted regarding

factors of property overhang and look more detail each factor contributing to property overhang. Conversely, it needs to look into how to resolve the rising number of overhang units. The developer and local authority play a vital role in helping reduce the number of overhang units. For example, the developer needs to conduct an adequate feasibility study to develop a new scheme, and the local authority needs to re-evaluate the development before approving it. The outcomes are expected to benefit the direction of future research and the development of solutions, especially for the agencies and stakeholders, such as the state and local authorities and developers, to work together.

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Article Contribution to Related Field of Study

This paper contributes to the related field of study such as Real Estate/Built Environment.

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