

Investigation on Buyers' Purchase Intention of High-Rise Properties in Malaysia in the Era of 4.0

Darren Khoo
 Graduate School of Business
 Universiti Sains Malaysia
 Penang, Malaysia
 darrenkhoo@hotmail.com

Yen-Nee Goh *
 Graduate School of Business
 Universiti Sains Malaysia
 Penang, Malaysia
 yngoh@usm.my

Mao-Seng Ting
 Graduate School of Business
 Universiti Sains Malaysia
 Penang, Malaysia
 tingmaoseng@gmail.com

Abstract — Customer in the era of 4.0 may be influenced by social media when it comes to their purchase intention. Nonetheless, when the product involvement for the purchase is high such as buying a property, buyers' intention is greatly determined by psychological factors. Hence, the aim of this study is to determine the factors that influence the purchase intention of high-rise properties in Penang. A total of 103 completed questionnaires were received and use for data analysis. *Statistical Packages for the Social Sciences (SPSS)* software was used for data analysis and hypotheses testing. The findings of this study show that attitude, perceived behavioural control and property attributes has a positive and significant relationship with buyer's intention of high-rise properties. Surprisingly, financial factors, developer branding and property surrounding demonstrated insignificant relationship with purchase intention while property view has a negative relationship with purchase intention of high-rise properties. This study provides important insights especially on the buyer's perception that influence their purchase intention. This help to extend the knowledge in the consumer behaviour literature on the type of housing demand in Malaysia that emphasizes on high-rise properties.

Keywords: *high-rise properties, purchase intention, Penang, Malaysia, era of 4.0*

I. INTRODUCTION

In many countries, the property sector has always been one of the important sectors of a country because fundamentally, property industry appears to grow along with the economy of the country [1]. The same can be said for Malaysia's property sector where property development is being carried out to stimulate economic growth which has always been an important component of the domestic economy [2]. In Malaysia, the property market is categorized into few sectors such as residential, commercial, industrial, agricultural and others. Under the residential sectors which is the focus of this study, it is further segmented into housings, flats, apartments, condominiums and serviced apartments. Generally, with the growing of population in any country, the need for housing will be increasing in tandem as well. In the recent years, rapid development of housing in major urban areas in Malaysia such as Penang, Kuala Lumpur, Selangor and Johor Bahru, has taken place especially, high-rise residential schemes in these high-density areas as a result of increasing demand for housing and the scarcity of land for development revolving landed residential properties [2].

Despite the concerns of oversupply and increasing price in the Penang properties, it is apparent that there is still a growing demand for high-rise properties in view of the recent new property launch in urban area that focused on high-rise properties such as apartment and condominium. Studies that focused on high-rise properties in Malaysia remain relevant and pertinent at this juncture in view of the contribution of housing industry towards the Malaysia economy. Hence, the aim of this study is to determine the factors that influence the purchase intention of high-rise properties in Penang.

II. MATERIALS AND METHODS

A. Literature Review and Hypotheses Development

Purchase intention is considered a consumer's attitude toward a product with reference to own beliefs toward making a purchase of a product in the future [3]. A research by Ajzen [4], found out that intentions towards an act of behaviour are formed as the most important indicators of execution of behaviour and determines the impact of attitudes, perceived behavioural control and subjective norms. Attitudes are how people are placed in the mind and behaviour, inclining towards favouring or disfavouring from a situation with the more positive or favourable attitude towards green and sustainable homes, the highly chances the person will purchase these homes [5]. Another indicator that predicts the intention to purchase is the perceived behavioural control. In the study of perceived behaviour control in influencing purchase intention in Saudi Arabia, Al-Nahdi et al. [6] gave the definition as the extent to which the person has control over the internal and external factors that facilitate or impede the behaviour outcome. In the real estate market, past research has found that perceived behavioural control to be predictors of green housing purchase.

In any property investment, financial factors are often the most crucial factors in making decision as a consumer due to the reason that it involves the investment capital in which consumer intend to gain from their investment [7]. According to Saw and Tan [7], these financial factors includes Real Property Gains Tax or (RPGT), Developers Interest Bearing Scheme" or "DIBS", bank loan interest rates, household income, property price and ability to secure financing which are key to decision-making by most property consumer. In additional, intrinsic housing attributes include housing type, housing age, internal

layout, air-conditioning and so on [8]. In addition, some past studies identified housing price as intrinsic housing attributes [9][10]. Therefore, for this study, the property attributes shall encompass selling price of property, built-in furnishings, property land title and age of building.

The importance of branding cannot be undermined and increasingly, branding is becoming synonymous with our daily life while one area of importance that could be examined is the effect of branding on the property sector [11]. As such, the study of branding to the property sector would be necessary for any relation to property purchase would be vital and beneficial whether branding influence in affecting property buying decision [11]. According to Cheng and Cheok [11], it is revealed that property consumers in Malaysia are normally brand conscious and with attitude of purchase preference towards reputable property developers and consumers tend to rank them by their emphasis on trend, professionalism and investment as the top 3 priorities in the property brand. According to Thaker and Sakaran [2], house buyers prefers to purchase from the well-known developer as there are some cases where developers are unable to complete the project on time or worse abandon the project.

Past studies have concurred that location is one of the most important factors affecting individual's decision making in purchasing a house [12]. A property with good locational attributes is the property that linked to the proximity towards local amenities such as school, shopping malls and transportation centers [7]. Harold and Leonard [13] argued that the value appreciation of land and properties with good surrounding is reflected in areas that are near to schools, shopping centre and public transports. Buyer's preference in the decision making of property buyers are often affected by the distance factor from home such as distance to workplace, schools, shops and central business districts, especially the distance to home from workplace which is mostly considered when selecting a property for investment [7]. This was concurred by Karsten [14] and Tu and Goldfinch [15] which found purchase intention among resident are influenced by proximity to workplace due to preference to lesser traveling time to work. Moreover, it was identified that properties having good surrounding location have strong appreciation value [7].

Besides, the view of high-rise property also played an important role in buyers purchase intention. According to Sew & Chin [16], the increasing in demand for housing located at hilly area are due to the natural beauty, impressive view, beautiful scenery, fresh air, and exclusiveness [17]. The hilly and sloppy terrain impressive views and good ventilation combined with the designer's architecture creativity will make hillside property attractive and exclusive which contributes to the increment of property value of the hillside property [17]. Based on the aforementioned suggested literature, the following hypotheses are proposed (see Fig. 1 for the research model):

- H1: Attitude positively affect the purchase intention of high-rise property.
- H2: Perceived behavioural control positively affects the purchase intention of high-rise property
- H3: Financial factors positively affect the purchase intention of high-rise property.
- H4: Property attributes positively affect the purchase intention of high-rise property.
- H5: Developer branding positively affect the purchase intention of high-rise property.
- H6: Property surrounding positively affect the purchase intention of high-rise property.
- H7: Property view positively affect the purchase intention of high-rise property.

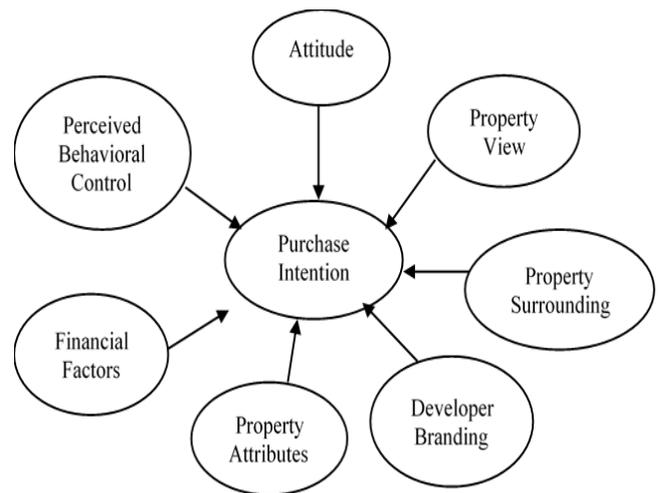


Fig. 1. Research Model

B. Research Method

Population is the entire set of cases from which a sample is obtained [18]. The population shall encompass all potential consumers of high-rise properties residing in Penang, Malaysia. The unit of analysis is the major entity that is being analysed in a study and in a research, the unit of analysis can be either individuals, groups, divisions, industry or countries [19] Hence, the unit of analysis in this study was refer to the adult's house buyers from Penang who were above 21 years old. This study was a cross sectional study using convenience sampling in which self-administered online questionnaires were distributed via online survey platform to potential house buyers. Purchase intention was measured with 5 items and attitude was measured with 4 items; both were adapted from Al-Nahdi et al. [20]. Perceived behavioural control was measured with 5 items and was adapted from Al-Nahdi et al. [6]. Financial factors were measured with 4 items and adapted from Saw and Tan [7]. Property attribute and property views both using 4 items each were adapted from Chin [21]. Developer branding was measured in 3 items and adapted from Cheng and Cheok [11]. Property surrounding was measured with 6 items adapted from Tan [22]. All the items used 7-point Likert scale from strongly disagree to strongly agree. In a study conducted by Saw & Tan [7] in

Malaysia where a total of 200 questionnaires were disseminated out and a total of 105 were used for analysis which showed the response rate of 52.5%. With that, a total of 800 questionnaires were distributed via emails, Facebooks, social networks channel using Google Forms with an estimated 15% of response rate (120 respondents). The 800 self-administered questionnaires distributed were considered sufficient as the minimum suggestion of sample size for this study is approximately 10% of response rates or 100 respondents. As recommended by Green [23], a minimum sample size of 102 is required for a medium effect size (i.e. a total of 7 arrows pointing at a dependent variable). Hence, with a total of 103 responses, the sample size was deemed sufficient.

With a total of 103 responses, the data were key in using SPSS or Statistical Package for Social Science software to test for validity and reliability of the measurement scale. Next, we run multiple regression analysis to identify the path coefficient. We used a factor analysis with varimax rotation and the results showed that there are seven factor solution with eigenvalues greater than 1.0 and the total variance explained was 66.11% of the total variance. We adopted the Igbaria et al. [24] criteria in which each item should load 0.5 or greater on one factor. Our results confirmed that all items are measuring the individual factor. In terms of reliability analysis, the Cronbach's alpha values for all the independent variables and dependent variable are above the acceptable threshold of 0.5 hence confirming that the scale are reliable (see Table I).

III. RESULTS

Table II presented an R-squared value of 0.455, indicating 45.50% of the variance in the dependent variables that are explained by the independent variables. The results showed that attitude towards high-rise properties, perceived behavioural control and property attributes positively affect the purchase intention of high-rise property, hence supporting H1, H2 and H4. However, financial factors, developer branding, property surrounding have a non-significant relationship with purchase intention of high-rise property. Therefore, H3, H5 and H6 were not supported. H7 was also no supported because property view negatively affect the purchase intention of high-rise property.

TABLE I. SUMMARY OF FACTOR ANALYSIS RESULTS FOR INDEPENDENT VARIABLES

Variables ^a	Component						
	1	2	3	4	5	6	7
AT1	.826						
AT2	.834						
AT3	.917						
AT4	.730						
PBC1		.635					
PBC2		.576					
PBC3		.711					
PBC4		.584					
PBC5		.539					
FF1			.748				
FF2			.815				
FF3			.747				
FF4			.654				
PA1				.506			
PA2				.545			
PA3				.654			
PA4				.566			
DB1					.590		
DB2					.666		
DB3					.577		
PS1						.541	
PS2						.789	
PS3						.808	
PS4						.816	
PS5						.700	
PS6						.640	
PV1							.656
PV2							.660
PV3							.551
PV4							.592
Eigenvalue	7.32	3.86	2.22	2.04	1.69	1.46	1.24
% of Variance Explained	24.4	12.9	7.4	6.8	5.6	4.9	4.1
% of Total Variance Explained	66.110						
KMO	.710						
Bartlett's Test of Sphericity	.000						
Cronbach's alpha	.930	.890	.880	.751	.622	.825	.823

^a. AT – Attitude; PBC – Perceived Behavioural Control; FF – Financial Factors; PA – Property Attribute; DB – Developer Branding; PS – Property Surrounding; PV – Property View

TABLE II. SUMMARY OF MULTIPLE REGRESSION ANALYSIS RESULTS

Independent Variables	Standardised Coefficients	Sig.^b	Collinearity Tolerance	VIF
Attitude	.647	.000**	.844	1.185
Perceived Behavioural Control	.174	.027**	.963	1.038
Property Factors	.045	.608	.739	1.353
Property Attributes	.222	.039**	.508	1.969
Developer Branding	-.031	.732	.713	1.403
Property Surrounding	-.019	.862	.508	1.967
Property View	-.205	.048**	.548	1.826
R-squared R ²		.455		
Adjusted R ²		.414		
F – value		11.311		
P – value @ Sig		.000		
Durbin Watson		2.264		

^b ** p<0.05

IV. DISCUSSION

This study investigates the determinants that influence buyers purchase intention on high rise properties in Penang, Malaysia. This study confirmed that there was a positive and significant relationship between attitude, perceived behavioural control and property attributes with purchase intention towards high-rise properties in Penang. First, the study revealed that the more positive or favourable attitude towards green and sustainable homes, the decision-making towards the home purchase of the individual will be likely higher in Malaysia. The finding is consistent with the study of George [25] and Tan [5] research. Besides, perceived behavioural control was also found to have a positive significant relationship with purchase intention of high-rise properties. The outcome is in line with past studies [5,6,26,27]. The result revealed that in the case of Malaysia purchasers, accessibility to information and the strategy of marketing by developers is crucial because the results shows that purchasers are more likely to buy high-rise properties when the information and knowledge are able to obtain with ease and the opportunities to the market are easily accessed. Furthermore, property attribute was found to have a positive and significant relationship with purchase intention of high-rise properties. It revealed that property attribute such as selling price, age of building, built-in furnishings and property land title may influence Malaysian purchasers' intention towards high-rise properties which is in line with other studies [3,17,28,29]. The findings of this study provide some significant business insight to property developers such as the likely influence of the buyer's positive attitude towards high-rise properties that showed a much greater influence towards the purchase intention compare to perceived behavioural control and property attributes.

Surprisingly, the relationship between financial factors, developer branding, property view and purchase intention on high-rise properties were non-significant. First, financial factors were not one of the major factors that purchaser considers in their decision-making of buying high-rise properties. In Malaysia, it is relatively easy to secure a housing loan from the local bank if a buyer has steady incomes. Furthermore, a local bank may borrow up to 90% of the housing loans to a purchaser who is willing to buy the high-rise properties, they just need to safe approximately 10% of the down-payment of the property price. Second, developer branding was found to have a negative and insignificant relationship with purchase intention of high-rise properties. This contrasting findings with Razak et al. [3] could be due to 17 % of the respondents in this study have yet to own a property which may not consider developer branding is an important factor. Third, property view was also found to have a negative but significant relationship with purchase intention of high-rise properties. It revealed that Malaysian purchasers do not consider property view such as built-up area, floor layout plan, views from balcony and views of housing area is an important factor for them when buying high-rise properties.

A. Implication of the Study

From the observation of the outcome of this research, there are several conclusions that can be drawn here. The result from testing of the hypotheses has confirmed that there was significant relationship between attitude, perceived behavioural control, property attributes and property view with purchase intention towards high-rise properties in Penang. With these findings, there will be major contributions to few sectors of the industry.

From the developer point of view, even though price is the main determinants of most intention to purchase, these findings are indeed very useful in strategizing out a marketing plans such as rebates, discounts and add-on values package to caters towards the need of current slow market condition and ultimately, driving more sales for the companies while ensuring sustainability. With that in mind, the property attributes such as the build-up area and floor layout will be customised towards the trending of the society whether the target market are young working adults or growing families with young children target market. This will increase the saleability of the developers' products. At the same time, with the findings of developer branding insignificant, the spending of allocated resources maybe channelled to the other departments such as marketing which would generate best return of investments.

From the Penang state government perspective, these findings may be beneficial to assist the state government to consider relaxing housing guidelines and reduce development contribution charges to ease the local property developers burden and work together in keeping affordability of high-rise properties within reach of the

majority of society while ensuring balance with demand and stimulating economies growth.

B. Limitation and Suggestion for Future Research

One of the limitations identified from this study is the small sample size and the respondent selected are only from Penang. Future research may include a larger sample size and extend the study to whole Malaysia so that it reflects the overall Malaysia population. Furthermore, in terms of past studies done for high-rise properties, seems like there are past studies of the property sector in general but limited recent studies conducted in the Malaysia high-rise property sector especially in Penang. The availability of source of references and journals makes it hard to critically reviews available literature and even more challenging to produce accurate references with only a handful of journals carries out in Malaysia.

Recommendations for future research to further advance this study may consider how to make improvement to the limitations of the study to have a better representation of the data gathered. Due to inevitable rising cost of the construction raw material and contributions imposed by local authorities, perhaps future research may want to look into how new project launches selling price are able to be offered at reasonable affordable price without compromising the quality of workmanship and quality of life. On top of that, a further research into added features.

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