



## **PREFERENCE OF RESIDENTIAL TYPOLOGIES OF URBAN MALAYSIANS**

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### **Abstract**

This paper seeks to understand patterns of residential preferences of urban Malaysians when seeking to purchase residential properties. Data was gathered through sampling surveys targeting potential house buyers in property fairs in three urban centres in Malaysia, namely Kuala Lumpur, Georgetown and Johor Bahru. Results highlighted significant presence of young purchasers and first-time buyers; majority seeking to purchase properties priced RM600,000 and below; and taking very long tenure to finance the properties. Double-storey terrace and condominium, accumulatively garnered higher popular choice, but both fell short of 'Most Preferred' category. Factor analysis discovered that overall landed properties fared better than multi-storey buildings as preferred residential typology across the board regardless of socio-economic backgrounds. Family situation and circumstance, referring to marital status, number of family member, and whether they previously owned a property, were found to be the most crucial factors governing their choice on the preferred type of residential properties.

**Keywords:** housing typology, housing preference house choice, residential typologies, family factors in housing, landed housing, multi-storey housing

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## **INTRODUCTION**

The research on housing or homeownership can be approached from different angles and subject to diverse influencing factors. Home ownership is a result of many determinants, including housing characteristics (house types and property types), employment and income trends, and socio-cultural and demographic descriptors. This paper seeks to understand preferences in types of residential properties, and factors determining the decisions in choosing them, based on feedback from potential house-buyers in three urban centres in Malaysia, namely Kuala Lumpur, Georgetown and Johor Bahru. These three cities were chosen as they represent the three largest cities in Malaysia with the highest concentration of urban population, highest transaction of properties and most affluent housing markets and high living costs. The typologies of residential properties included in this paper are based on commonly found housing typologies in Malaysia. Factors influencing choices of residential properties include profile of buyer, i.e. investors vs. genuine buyers and first time home buyers; socio-marital background, e.g. age, gender, family situation, occupation and other factors related to finance arrangement and payment methods.

## **LITERATURE REVIEW**

### **Residential Building Typology and Character in Malaysian Cities**

The definition of housing typology itself can be referred to the classification of residential buildings, according to its association with physical composition, intensity of development and degree of formality. There are many types of residential properties in Malaysia. In this study, the categorisation is based on the most commonly found housing typologies in Malaysian cities using the Malaysian National Property Information (NAPIC)'s house price index categorisation as a basis. NAPIC categorised the residential properties into only four, namely terrace, high-rise, semi-detached and detached house. For this study, these were further divided them into townhouse, apartment, condominium, flat, shop-house/shop-apartment, terrace house, semi-detached house and detached house/bungalow, for a more meaningful understanding on the commonly found residential typologies in Malaysian cities.

The diversity in the residential typologies in Malaysia cities is a combined result of historical trends, contemporary market forces and the regulatory demands. The colonial heritage in the past, which merged with local traditional forms of housing, resulted in housing types of 'terrace house', 'shop-house' and 'bungalows' (Ju & Omar, 2011). 'Shop-house' for instance, is a hybrid residential-commercial typology, traditionally found in South-east Asian colonial cities. 'Terrace house' can be taken as the most economic type of landed property, while 'semi-detached' type has bigger private compounds, but do not have the luxurious amount of open spaces like the 'bungalow'. Another type of

landed property is townhouse, which is an individual stratified unit with separate entrances for the upper and lower units.

Other than this, the high-density and multi-storey types of housing, such as ‘apartment’, ‘condominium’ and ‘flat’ are more popularly found in urban centres in Malaysia. The housing landscape of Malaysian cities reflects the increased demand in urban population and the regulatory regimes governing urban planning and housing development. Planning controls restrict the amount of land available for housing, and determine the density as well as the types of development activity of the location or zonation. Planning standards specifying the allowable units per acre or in plot ratio, building height, land set-backs, amount of land for open space and amenities, and in the cases of low-cost and affordable units, the unit size. As a result, high-density development can be synonymous to the high-rise typologies, including apartment, condominium and flat, with densities of 60 to 128 units per acre. Low-rise units refer to cluster, terrace and townhouse (20 to 35 units per acre), while detached, semi-detached and bungalow houses can have very low density, as low as 15 units per acre.

#### **Factors Influencing Preferences on Types of Residential Buildings**

Research on residential housing choice and preference are wide and multi-faceted. There has been a tradition of explaining housing preference based on homebuyer demographics such as age, household composition, income, and current housing situation (Rossi & Weber, 2010). Empirical studies relating housing choice and socio-demographic backgrounds have shown that home ownership is strongly related to stages in the life cycle (Clark & Onaka, 1983), the presence of children (Coulson, 1999; Goodman, 1990; Haurin & Kamara, 1992) and employment types and location (Levine, 2007)

In a study of factors affecting buying behaviour of apartment in Amman Jordan, significant constructs such as aesthetic, economic, marketing, geographic, and social factors were found. The study concluded that there were significant differences in terms of respondents’ gender and age, but no significant differences according to the marital status or educational level (Haddad, Judeh, & Haddad, 2011). In a study on house purchase intention of consumers in Kota Kinabalu, Malaysia, it was found that house features, financing, distance, environment and superstition-numbers have significant positive relationships with house purchase intention (Chia, Harun, Kassim, Martin, & Kepal, 2016).

Indeed, house preferences are not only influenced by social-demographic descriptors, but equally important are buyers’ intentions and their finance situations. In understanding reasons of homeownership factors in Malaysia, Tan (2009) uncovered six factors, namely local amenities and social capital investment, properties maintenance and improvement, length of tenure, children’s educational needs and financial benefits in understanding buyers’ motivation as considerations in buying homes in Malaysia.

In a study of factors affecting the purchase decision of investors in the residential property market in Malaysia, it was revealed that locational, financial and structural factors affect property investors in making their purchases (Tan, 2012), while Kohler (2013) revealed that investors generally prefer smaller properties especially apartments and flats as these properties have always been more popular among tenants. In identifying drivers behind housing preferences of first-time home buyers, Reed and Mills (2006) confirmed that “financial” issues accounted for approximately 30 percent of the actual decision by first-time buyers to purchase housing, while decisions relating to the timing and choice were dependent on “site-specific” factors.

Most literature found relate housing preferences to the socio-demographic attributes and reasons behind certain choices were made, but seldom correlate to the different housing typologies. Only one finding from a recent study of young Malaysians in Subang Jaya, Selangor, Malaysia which revealed that young urbanites preferred landed housing with more bedrooms compared to high-rise housing. They preferred to live in urban area so as to be close to workplace and services. They targeted high priced houses despite facing affordability issues (Ling, Mansur, & Musthafa, 2016).

## **METHODOLOGY**

### **Sampling and Questionnaire**

Primary data using a face-to-face convenient sampling survey was conducted in three major Malaysian cities, namely Kuala Lumpur in the central region of Peninsular Malaysia, Penang in the northern region, and Johor Bahru in the southern part of Peninsular Malaysia. The surveys were conducted at five major property fairs in year 2016. These property fairs are Malaysia Property Expo (MAPEX), The Star Property Fairs, and Malaysia Secondary Property Exhibition (MASPEX). A total of 1015 valid samples were analysed. The survey targeted visitors to the property fairs. The survey questionnaire included 66 questions concerning respondents’ socio-demographic backgrounds, current family and living conditions, payment and financial arrangements, and housing type preference. For this paper, 27 questions grouped under the following categories were analysed:

- Respondents’ socio-demographic data: marital status, living condition, number of family member, occupation, education level, age, gender, ethnicity, religion, household income, currently own any property.
- Preferred type of house: flat, apartment, townhouse, condominium, shop-house, single storey terrace, double storey terrace, semi-detached, and bungalow.
- Purpose of purchase: payment method, loan tenure, percentage of income for property, house price, floor size, etc.

All questions related to house type preference were measured using a five-point Likert Scale and respondents were asked to state the level of their agreement on preferred house types.

### **Analytical Method**

Statistical analysis was carried out using the IBM Statistical Package for the Social Science (SPSS) for Windows version 22.0. Exploratory factor analysis was used to investigate the relationships between the factors and to identify the unspoken concerns of the respondents behind purchasing a type of residential property. Principal Component was used as an extraction method and orthogonal Varimax rotation to optimize the results.

### **General Characteristics of the Respondents**

Referring to Table 2, in terms of age group, majority of respondents (77.5%) consists of youth aged between 20 to 39 years-old, with 58.3% males and 41.7% females. For ethnic background, 67.6% were Chinese, followed by Malay (26.3%) and Indian (4.8%). Majority of the respondents were from higher income occupations i.e. 'businessmen, managerial and professionals' (78.2%) and they were mostly highly educated.

'Family and living situation' data shows that 33.8% of respondents were singles who live with their parents, singles who live with friends (17.7%), while married couples with and without children consist of 34.5%. On marital status, a significant portion was singles (53.9%) as opposed to 46.1% married. Small households with one or two persons consist of a whopping 43.5% of respondents, compared to households with three to four persons (36.7%); while larger households with five and six members only occupied 19.8%.

With regard to main intention to own the property, majority purchased mainly for own stay (59.2%) as opposed to 40.8% for investment. Slightly more than half of the potential buyers have owned a property (59.1%) while equally significant numbers (40.9%) were first-time buyers. On the types of property, whether they prefer 'new property', 'sub-sale' or 'do not mind either', about half of the respondents choose 'new property' while a significant portion (45%) did not mind both. In terms of unit size preference, majority (87.2%) choose sizes between 750 to 2000 square feet.

Majority or 74.5% of the potential purchasers indicated they prefer house priced below RM600,000, out of which 45.1% were not willing to pay higher than RM400,000. This was understandable judging from the same data which pointed out that a significant number or 55.6% of the respondents has household income of RM6,000 and below. In a property survey data from Q3 2016, the average house price in Kuala Lumpur was around RM772,126 (NAPIC, 2016) and the average costs of a 1000 sq. ft. apartment in a typical Malaysian city was between RM516,700 and RM1.2 million (Numbeo, 2017) Our data revealed that

the price that most people were willing or could afford to pay is much lower than the average prices of housing in the market. Under such circumstances, it was not surprising that nearly all respondents have to get a mortgage from bank (94.3%), and more than 45% respondents allocate more than 30% of their income to finance the property, and commit to long-term mortgage tenure, whereby 63.5% have to take a loan longer than 26 years, and 35.7% have to commit to a loan period longer than 30 years.

**Table 2:** Respondents' socio-demographic profile

Variables	%	Variables	%
Age		Currently own any property	
20 - 29 years old	22.1	Owned a property	59.1
30 - 39 years old	55.4	First time buyers	40.9
40 - 49 years old	14.7	Preferred type of property	
50 - 59 years old	3.6	New property	49.3
Above 60 years old	4.2	Sub-sale	5.7
Gender		Either	45.0
Male	58.3	Preferred floor size (Sq. Ft.)	
Female	41.7	Below 750sf	6.7
Occupation		Below 1,000sf	25.6
No permanent employment	4.8	Below 1,250sf	27.7
Retiree	2.2	Below 2,000sf	33.9
Labourer & administrative	14.9	Above 2,000sf	6.1
Businessmen	21.7	Preferred house price	
Managerial	15.7	Below RM200k (USD46,087)	8.6
Professional	40.8	RM200,001 to RM400,000 (USD46,088 to USD92,174)	36.5
Education Level		RM400,001 to RM600,000 (USD92,175 to USD138,261)	29.4
Lower secondary and below	3.4	RM600,001 to RM800,000 (USD138,261 to USD184,348)	16.9
High school	14.8	RM800,000 to RM1 million (USD184,349 to 230,435)	4.7
Certificate & Diploma	23.8	Above RM1 million (Above USD230,435)	3.9
Bachelor degree	46.2	Preferred payment method	
Postgraduate degree	11.7	Cash	5.7
Living Condition		Cash & Mortgage	94.3
Single with parents	33.8	Household Income	
Single staying alone	9.5	RM6000 (USD1,382) & below	55.6
Single staying with friends	17.7	RM6001 - RM10,000(USD1,382 to USD2,304)	25.0
Married without children	19.0	RM10,001 - RM14,000 (USD2,304 - USD3,226)	14.1
Married with children	15.5	Above RM14,001 (USD3,226)	5.3
Others	4.5	Willing to allocate percentage of income to financing the property	

Marital Status		Below 20%	18.6
Single	53.9	20.1% - 30%	36.3
Married	46.1	30.1% - 40%	21.4
Number of Family Member		40.1% - 50%	15.5
One person	33.8	Above 50%	8.2
Two persons	9.7	Preferred loan Tenure	
Three persons	17.7	Below 10 years	6.6
Four persons	19.0	11 - 15 years	17.8
Five persons	15.5	16 - 25 years	12.1
Six persons	4.3	26 - 30 years	27.8
Purpose of Purchase		Above 30 years	35.7
Own stay	59.2		
Investment	40.8		

*Source: Own survey data*

## RESULTS AND DISCUSSION

### Respondents' Preferences on Various Types of Property

Respondents were asked to state their preferences on the types of residential properties in 5-level Likert Scale ranged from Least Preferred to Most preferred. Among various types of property, flat and shop-house have the lowest popularity where 69.9% and 65.6% of the respondents chose 'Least Preferred' and 'Not likely' respectively (Table 3). Townhouse was also not favoured as it mainly occupied the lower tiers of the preference scale.

Accumulatively, double-storey terrace and condominium seemed to be quite popular among the buyers, with 82.3% and 82.1% potential purchasers chose "Most Preferred", 'I Can Consider' or 'Do Not Mind' respectively. In particular, double-storey terrace and semi-detached types scored the highest in 'Most preferred' category, with 25.9% and 24.8% respectively. Interestingly, condominium scored the highest in 'I can consider' category with 36.3% compared to 22.8% in the 'Most preferred' category. This is similar to double-storey terrace, where more respondents chose 'I Can Consider' (34.7%).

As for apartment and single-storey terrace, data seemed to suggest that there was a mixed reaction and no strong preference on either extreme ends, with higher percentage of respondents concentrates in the middle, choosing 'I don't mind' and 'I can consider'. For bungalow type, the preference level seemed to spread quite evenly between those who prefer and not prefer. This suggests that as much as there were people who prefer bungalow, there were those who do not fancy them. This may be attributed to affordability concerns.

**Table 3:** Heat map indicates preference level on different types of property

	Least Preferred	Not Likely to Choose	I Don't Mind	I Can Consider	Most Preferred
Townhouse	33.7%	20.8%	24.9%	16.9%	3.6%
Apartment	18.0%	17.0%	29.8%	24.9%	10.3%
Condominium	8.2%	9.7%	23.2%	36.1%	22.8%
Flat	41.6%	28.3%	18.7%	8.9%	2.5%
Shop-house	41.5%	24.1%	17.7%	11.8%	4.9%
Terrace Single	17.3%	14.3%	25.5%	28.4%	14.6%
Terrace Double	8.1%	9.7%	21.7%	34.7%	25.9%
Semi D	12.6%	14.0%	22.8%	25.7%	24.9%
Bungalow	20.1%	19.4%	21.0%	18.9%	20.5%

Source: Own survey data

Based on the heat map in Table 3, it is observed that landed properties are generally more popular than multi-storey properties, except for condominium. This coincides to an earlier study of young people living in Subang Jaya, Kuala Lumpur, which pointed that most respondents still preferred landed properties albeit a generous supply of high-rise housing in that area. (Ling et al., 2016). This observation is re-examined using factor analysis in the next section.

### Unspoken Concerns of Potential Buyers

Exploratory factor analyses (EFA) were employed to investigate the hidden construct of the factors. Note that ‘living condition’ was excluded from EFA because it had perfect relationship ( $r = 1.0$ ) with the number of family member. This suggests that, for example, one person households equate singles either staying alone, with friends or with family members; whereas households with more than one person refer to ‘married couples with or without children’. EFA with principal components extraction method and Equamax rotation resulted in nine components (Table 4) that had eigenvalues contributed accumulative 58.57% of variance explained and its KMO measure of sampling adequacy is 0.673 (p-value <0.001).

The most important component, named as ‘Preference on landed property’ accounted for 11.56% of the total variance explained or the total information. This finding confirmed to an earlier finding by Ling et al. (2016). This component has positive relation to factors such as single-storey terrace, double storey terrace, semi-detached and bungalow. The second most important component represents ‘Family Situation’ accounted for 9.82% of the total information that includes factors such as number of family member, marital status and whether the respondents owned a property. This suggests that married



respondents who owned property, has more family member, and hence their family size is larger. The ‘family Situation’ factor can relate to the importance of household composition mentioned by Rossi and Weber (2010), and to certain extent, the effects of life cycle as discussed by Clark and Onaka (1983).

**Table 4:** Nine components resulted from factor analysis with Equamax rotation (only coefficients relevant to the component are indicated)

Factor	Latent Components								
	C1	C2	C3	C4	C5	C6	C7	C8	C9
Semi-D	0.832								
Terrace-double	0.782								
Bungalow	0.758								
Terrace-single	0.550								
Marital status		0.843							
Number of family member		0.830							
Currently own any property		0.673							
Apartment			0.766						
Condominium			0.650						
Flat			0.566						
Townhouse			0.537						
Shop-house			0.517						
Occupation				0.767					
Education level				0.714					
House price					0.691				
Floor size					0.604				
Ethnicity						0.843			
Religion						0.813			
Age							0.731		
Household income							0.543		
Payment method							-0.454		
Loan tenure							-0.411		
Gender								-0.729	
Percent of income for property								0.387	
Purpose of purchase								0.280	
Property type									0.758
<b>% of Variance Explained</b>	<b>11.52%</b>	<b>9.82%</b>	<b>8.29%</b>	<b>6.89%</b>	<b>5.46%</b>	<b>4.42%</b>	<b>4.28%</b>	<b>3.99%</b>	<b>3.89%</b>

Note: C1: Preference on landed property, C2: Family situation, C3: Multi storey property, C4: Occupation & education, C5: Preferred pricing & size, C6: Ethnic & religion, C7: Financial arrangement, C8: Purchasing preference, C9: Property type.

The third component represents other types of property contributed 8.29% of the total information. This include apartment, condominium, flat, townhouse and shop-house. This result revealed that the potential house-buyers placed higher preference on landed properties than multi-storey properties. Other components are 'Occupation and Education' refer to occupation and education level of the respondents; 'Preferred Pricing and Size' (preferred house price and floor size); 'Ethnic and Religion' (ethnicity and religion of the respondents); and 'Financial Arrangement' represents respondent's age, household income, preferred loan tenure and payment method. The last two components are 'Purchasing Preference' consists of gender, purpose of purchase, and percentage of income for property, and 'Property Type'.

While most factors have positive relations with the respective hidden components, 'payment method', 'loan tenure' and 'gender' showed negative relations. The explanation could be that for example, an older house buyer with higher household income tends to get shorter loan tenure by paying with cash, and hence the 'financial arrangement' level was lower. Also, it was observed that the 'purchasing preference' was higher for male who intended to buy house for own stay will allocate higher portion of income for property.

## **CONCLUSION**

As this study has chosen a sample population from potential buyers at property fairs, it only represents a segment of Malaysian urban population that has intentions to purchase properties. Hence the data will not be generalised to the entire population. This study has tried to discover factors leading to housing preferences and to make distinctions on the types of residential typologies most preferred by urban Malaysians. The findings confirmed the issues of mismatch between preferred house price and affordability, and high reliance on long term mortgage arrangement. It was also discovered that there were high interests among younger purchasers despite them facing financial challenges. Factor Analysis highlighted that landed property remained the most preferred choice as compared with multi-storey types regardless of respondents' backgrounds. Double-storey terrace and condominium seemed to garner higher accumulative positive preferences. In addition, our data also showed that 'family situation' was the second most important component in the factor analysis, specifically 'family size', 'marital status' and 'whether previously owned a property' were the major deciding factors. Owing to this trend, it is suggested that future housing development could devote resources to assess and match the socio-demographic profiles of potential purchasers with the types of residential property to offer.

## **ACKNOWLEDGEMENT**

This research was conducted under a research fund from Exploratory Research Grant Scheme (ERGS), Ministry of Higher Education (MOHE) Malaysia. Special thanks to The Star Property and Mr Michael Geh of Raine & Horne, for their kind assistance and contribution.

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