THE DETERMINANTS OF HOUSE BUYERS' PURCHASE DECISIONS IN KOTA BHARU, KELANTAN

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Abstract

The issue of unsold homes in Malaysia has recently caused the housing developers great anxiety. The nationwide issue of unsold homes was caused by the fact that more homes were built than were purchased by customers. As a result, it is important to figure out what factors can influence potential homebuyers to make a purchase. In order to better understand this issue, the study's objective was to determine the factors that influence homebuyers' decisions in Kota Bharu, Kelantan. The study specifically sought to ascertain whether variables including quality, price, location, promotion, and corporate image had an effect on consumers' decisions to purchase homes. Since the nation was dealing with the Covid-19 outbreak, which made face-to-face questionnaire distribution on the ground nearly impossible to carry out, 382 respondents from Kota Bharu, Kelantan, participated in this study through questionnaires disseminated using the Google Form technique. This study used the Principal Axis Factor and Promax Rotation to evaluate the instruments. Before doing a bootstrapped regression analysis, all seven multiple regression assumptions were examined and verified. The findings showed that only location and promotion variables were positive and significantly influencing the house buying decision. These findings led to a number of strategy recommendations that helped the industry develop the best plans for boosting upcoming sales. It is hoped that by identifying the variables influencing homebuyers' purchasing decisions, housing developers can get an understanding of this phenomenon and be better able to plan and build homes that will live up to buyers' expectations.

Keyword: Purchase decision, quality, price, location, promotion and corporate image

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INTRODUCTION

One of our life's most essential goals, especially after obtaining a job, is home ownership. A shelter or a house, according to Maslow's (1943) theory, is an example of a physiological need that must be met by a person after those for food and water. Consequently, a home can be regarded as a fundamental need for each and every person (Aragones et. al, 2010). Because most people value their homes, it is crucial for a family to find a suitable and comfortable place to call home (Spetic et. al., 2005).

The global residential housing sector has become known as the most successful economic activity in recent years. A rise in population size, factors influencing rural-to-urban migration, and significant economic growth in a variety of sectors have all contributed to Malaysia's rapid population growth rate from the 1950s (5,226,500 people) to the present (32,761,883 people) (Department of Statistic Malaysia, 2021). Demand increases in line with population growth, per the theory of demand. This circumstance represents socio-economic stability for the development of a nation and has indirectly fueled the rise of the residential property market (Bujang et al. 2010). However, according to an article about the housing glut in Malaysia that appeared in BH Online (Abllah, 2018), the number of unsold homes in Malaysia during the previous ten years was surprisingly large. It was discovered that 79% of houses being built in Malaysia cost RM250,000 or higher (middle cost and high cost category). As a result, homes in this category made up 70% of the unsold homes. In addition, Liew and Haron (2013) discovered that due to the robust economic expansion, housing prices have been increasing faster than real income growth. It will be very difficult for buyers, especially middle-class households, to purchase a home with the ongoing rise in property prices brought on by the rapid economic expansion. This was corroborated by a report published by Bank Islam in 2015, which indicated that rising material costs were responsible for a 3.97% increase in the price of new homes in Malaysia, and that developers also raised their pricing by an estimated 4%. Because homebuyers will undoubtedly become more thorough in their decision-making, this price increases will definitely contribute to the numbers of unsold homes.

The situation, which was already bad owing to price hikes, got worse since too many units of middle- and high-priced homes were being built. This may have influenced buyers' decisions to acquire a home because the prices were too high for them to afford. This circumstance was confirmed by data from Jabatan Perumahan Negara in Table 1 regarding the quantity of housing units built, sold, and unsold in Peninsular Malaysia between 2017 and September 2019.

Table 1: The Number of Housing Unit Built, Sold and Unsold in Peninsular Malaysia
(2017 - September 2019)

NO.	STATE	2017					2018								2019				
		UNIT BUILD	HOUSE SOLD		HOUSE UNSOLD		UNIT BUILD	HOUSE SOLD			HOUSE UNSOLD			UNIT BUILD	HOUSE SOLD (Estimation)		HOUSE UNSOLD (Estimation)	
			UNIT	(%)	UNIT	(%)		UNIT	(%)	% CHANGE	UNIT	(%)	% CHANGE		UNIT	(%)	UNIT	(%)
1	JOHOR	108,697	45,892	42.22%	62,805	57.8%	111,249	49,903	44.86%	9	61,346	55.14%	(2)	14,671	3,668	25.00%	11,003	75.00%
2	KEDAH	21,087	11,246	53.33%	9,841	46.67%	20,813	11,278	54.19%	0	9,535	45.81%	(3)	3,670	918	25.00%	2,753	75.00%
3	MELAKA	18,690	14,016	74.99%	4,674	25.01%	13,789	7,963	57.75%	(43)	5,826	42.25%	25	3,668	917	25.00%	2,751	75.00%
4	NEGERI SEMBILAN	14,234	6,599	46.36%	7,635	53.64%	14,214	6,687	47.05%	1	7,527	52.95%	(1)	4,362	1,091	25.00%	3,272	75.00%
5	PAHANG	21,361	7,562	35.40%	13,799	64.60%	21,257	7,933	37.32%	5	13,324	62.68%	(3)	4,956	1,239	25.00%	3,717	75.00%
6	PERAK	22,962	10,091	43.95%	12,871	56.05%	24,049	7,560	31.44%	(25)	16,489	68.56%	28	10,386	2,597	25.00%	7,790	75.00%
7	PERLIS	690	347	50.29%	343	49.71%	660	359	54.39%	3	301	45.61%	(12)	602	151	25.00%	452	75.00%
8	PULAU PINANG	35,309	16,630	47.10%	18,679	52.90%	38,996	15,461	39.65%	(7)	23,535	60.35%	26	7,395	1,849	25.00%	5,546	75.00%
9	SELANGOR	137,338	64,532	46.99%	72,806	53.01%	142,281	63,866	44.89%	(1)	78,415	55.11%	8	32,840	8,210	25.00%	24,630	75.00%
10	TERENGGANU	4,247	2,041	48.06%	2,206	51.94%	4,247	2,041	48.06%	-	2,206	51.94%	-	642	161	25.00%	482	75.00%
11	W.P KUALA LUMPUR	114,210	51,575	45.16%	62,635	54.84%	114,735	51,937	45.27%	1	62,798	54.73%	0	23,384	5,846	25.00%	17,538	75.00%
12	KELANTAN	5,831	1,708	29.29%	4,123	70.71%	5,932	1,489	25.10%	(13)	4,443	74.90%	8	2,473	618	25.00%	1,855	75.00%
		504,656	232,239	46.02%	272,417	53.98%	512,222	226,477	44.21%	(2)	285,745	55.79%	5	109,049	27,262	25.00%	81,787	75.00%

(Source: *Jabatan Perumahan Negara, 2020*)

In 2017, housing developers developed roughly 504,656 units of homes across Malaysia, as shown in Table 1. This figure climbed to 512,222 units in 2018, but due to the effects of Malaysia's weak economic growth starting in late 2018, the number of homes built in 2019 decreased to 109,049 units up through the month of September 2019. The homes constructed, however, do not match the homes the customers have purchased. There have been more unsold housing units in every state in Peninsular Malaysia since 2017 as a result of less homes being acquired by consumers than have been developed during the same period. The number of unsold homes in 2017 was 272,417 (53.98 percent). A 5% increase over 2017 was seen in the number of unsold homes in 2018, which stood at 285,745. While the number of unsold homes climbed in 2019 to 81,787 units (estimated) by the month of September. The statistics of unsold homes in Peninsular Malaysia increased as a result of this significant gap between constructed homes and those actually acquired by purchasers, which became a worrying trend for real estate developers. Specifically, based on Kelantan state scenario, Table 1 shows that housing developers in Kelantan are expected to have constructed 5,831 units of homes in 2017, 5,932 units in 2018, and 2,473 units from January to September of 2019. However, between 2017 and 2019, more than 50% of the homes that were built remained unsold. For the years 2017, 2018, and 2019, the percentage of unsold homes was 70.71, 74.9%, and 75.0%, respectively.

A few elements from the demand perspective influence the consumers home buying decisions. Firstly, according to a recent Malaysian study by

Rachmawati et al. (2019), quality has a substantial impact on consumers' purchase decisions. Consumers typically think about the quality they will get from a premium product while making purchases. If their expectations are not satisfied, purchasers' desire to switch to other developers. Secondly, house price hikes were mentioned as one of the factors influencing housing demand by Berry and Dalton (2004) and Rahman (2008). Thirdly, decisions regarding the location are in conflict. Tan (2012), however, found that location, such as distance, was viewed as an important factor for home buyers' demand, despite Mang et al. (2018) finding that location does not actually affect the purchase decision in the housing market. Fourthly, the study carried out by Cheng and Cheok (2008) emphasized the value of a buyer taking the developer's brand into account. Last but not least, Dalmendo (2020) discovered that advertising, such as very simple lending restrictions and procedures, increases home demand. Others prefer to put up a sales team, hire real estate agents, use aggressive marketing strategies in mass and social media, or even lower home prices in order to boost sales. However, the number of unsold homes has not yet been significantly decreased as a result of promotion efforts (Yin Yip et al. 2020).

Logically, the developers' businesses' profitability will be impacted by the number of unsold homes. The housing developers are likely to stop operating in the near future since they cannot afford the high operational costs to run the businesses due to the lack of sales and earnings when the number of unsold homes keeps rising each year. The downward sales trend and demand raised the key question of whether or not potential homebuyers are getting more picky and cautious when making a decision to find a home. Housing developers will benefit from addressing this issue by determining the elements that affect homebuyers' purchasing decisions in Kota Bharu, Kelantan based on the research framework shown in Figure 1 in order to produce homes that live up to buyers' expectations and contribute to further understanding about this phenomenon.
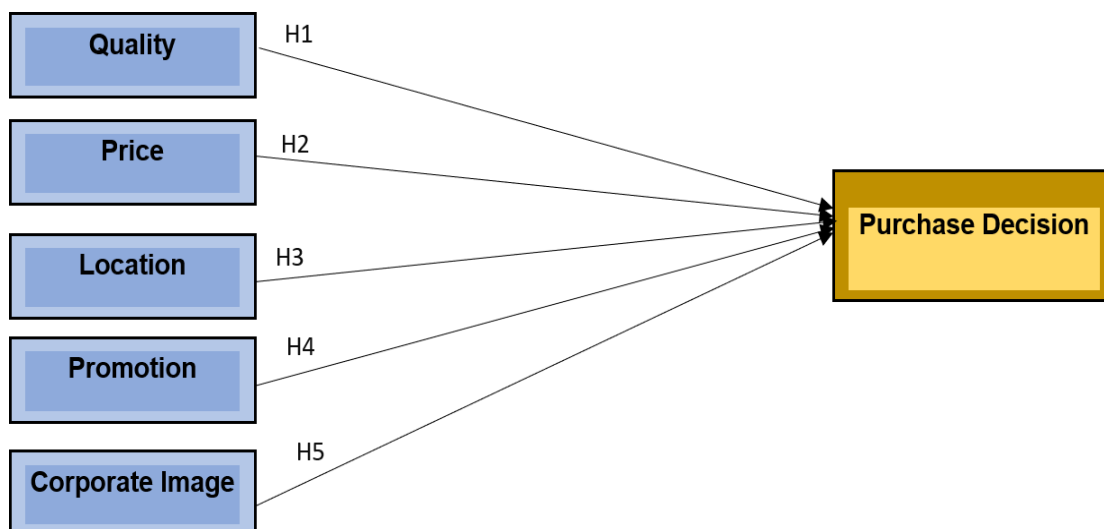
Figure 1: Research Framework

It is hoped that this study will be able to determine the most important variables and produce the ideal housing development approaches for housing developers to deal with the issue of low house sales in the housing market.

LITERATURE REVIEW

Most studies show that customers usually take into account their decisions of how, where, and why to buy things when making purchases. According to Kotler and Levy (1969), consumers' purchasing decisions are the actions they take when they purchase, use, and discard goods and services. A decision-making process known as the consumer purchasing decision is used by people who engage in physical activity to evaluate, purchase, use, or dispose of goods and services (Frazer, 1979). The process of thinking about buying a home is known as a house purchase decision. The primary event or action in a purchase decision is a buyer's choice to carry out a transaction or make a purchase. One aspect affecting how firms can achieve their goals is the quantity of consumers who make decisions. Customers can choose from a variety of options when come to a good or service (Rachmawati et. al., 2019). To understand a buyer's purchasing decision-making process, it incorporates a number of sociological, psychological, and economics concepts (Azad & Roshan, 2014). Consumer behavior is complicated, and spending a lot of money on something like a home makes it even more complicated (Frederiks et. al., 2015). The factors that affect purchasers' perceptions of a home's suitability and happiness with housing arrangements must therefore be understood (Mariadas et. al., 2019). It may be inferred that a customer's choice of a product or brand is the

result of the cognitive process that leads them from identifying a need to generating possibilities and making that decision.

Quality significantly affects customers' purchase decisions, according to a recent Malaysian study by Rachmawati et al. (2019). When making purchases, consumers frequently consider the quality they will obtain from a high-grade product. The intention of buyers to switch to other goods or services is possible if the value is lower than anticipated (Ahmad Syed et. al., 2019). Housing quality is a broad concept with many facets and both an objective and a subjective component. The objective dimension is made up of a variety of specific relevant factors, like the type of lodging, the quantity of spaces, the availability of services, and the standard of housing (Elsinga and Hoekstra, 2005). The subjective method includes client characteristics that give rise to distinct needs, preferences, and goals. The features or characteristics of the home environment and the characteristics of its buyers are just a few examples of the housing requirements that make up the housing quality criteria (Streimikiene, 2015).

One of the topics discussed in recent years is the cost of housing. Price was the most crucial consideration for buyers of residential real estate (Rachmawati et al., 2019). Nasar and Manoj (2015) and Harahap (2018) revealed a favorable association between price and purchase decision, making pricing the most significant element influencing a customer's decision to buy a residential unit. Whether in larger cities or smaller towns, depending on the region, housing prices have dramatically increased in Malaysia over the past ten years. According to Ismail (2019) Malaysian housing prices are excessively high and have exceeded wages and inflation. Based on the index, the huge rise in housing prices from 2009 to 2016 was 1.86 percent, which is a more dramatic increase than the 2.12 percent increase that also occurred at the same period (Abdul Lateef et. al., 2018). There are numerous factors that contribute to the rise in housing expenses, including demographics, interest rates, population growth, and unpredictable construction processes that raise development costs (Ismail, 2019). Poudyal et al. (2008) found that the closeness of a home to other places that serve the same purposes—such as offices, shopping malls, colleges, recreation centers, public transportation, open space, entertainment venues, and places of worship—determines the price of a property. House prices may also be significantly influenced by the uniformity of building materials and the extent of construction alterations to homes.

The next major considerations in a housing purchase is location (Xio and Tan, 2006; Asad Poor and Jusan, 2012; Lip and Tan, 2014; Al-Nahdi et. al., 2015; Monica 2018; and Yap and Ng, 2018). Customers would be drawn to areas that are both convenient and strategically placed. The location of a house was discovered to be important to home purchasers in the UK, Australia, and Ireland (Plimmer et al. 2003). Studies also show that in the context of Malaysia, those who were looking to buy a home felt that the location was important. Distance is therefore becoming

a more important factor in decision-making for residential properties in Malaysia (Plimmer et al. 2003; Asad Poor and Jusan, 2012). The housing's proximity to businesses, colleges, clinics, workplaces, and the city appears to be quite important, especially when making a purchasing decision. The desire to buy a residential home increases the moment one is located near one of these locations. For homebuyers who do not want to spend a lot of time traveling, Karsten (2007) recommended that distance from the place of employment is crucial. Lip and Tan (2014) also concur that if a person lives close to their place of employment, they will likely save money on travel expenses. Haussman (2018) found that while purchasers with young children may favor a location with greater natural surroundings, single professionals may prefer a location with better job, cultural, and service options. However, the location factor revealed contradictory results. Despite the result of Mang et al. (2018) that location had no real impact on a buyer's decision to buy a home, Tan and Saw (2014) discovered that location, such as distance, was perceived as a significant determinant for home buyers' demand.

Kotler and Armstrong (2006) defined marketing as activities that convey the benefits of the product and influence customers to buy it. Niazi et al. (2012) state that promotion is a means of persuasion used to inform customers and urge others to decide to buy a good or service. Promotion is the coordination of marketing. Marketing tactics attempt to disseminate information, influence, persuade, and/or remind the company's goods to embrace, purchase, and demonstrate loyalty to the company's goods. A good customer relationship, interactive communication, advertising strategy, personal purchases, promotional sales, and digital marketing are all examples of promotion strategies. Studies found that promotion has a positive impact on consumers' purchasing decisions (Putra, 2019; Huang Quang et al. 2019; and Brata et al. 2017). By providing information that will motivate purchases, promotional initiatives assist consumers in making selections.

Generally speaking, a company's corporate image is made up of a collection of perceptions and experiences that develop in the public's consciousness and reflect the success of that company's business operations in fostering goodwill (Rahmiati et al., 2017). Corporate image is also a company's overall representation; it goes beyond the representation of its products and services (Farida et al., 2018). Since the company's reputation is an inherent asset that drives growth, it turns into a commercial enterprise. Nguyen et al. (2013) found that corporate image is thought to share the same traits as schemes connected with purchasing decisions. Customers could form solid corporate relationships if a brand had a positive image. Additionally, trust enables a company to take the needs and wants of the client into serious consideration (Tjiptono, 2018). A study verified that home buyers in Malaysia view the developer brand as an important factor (Cheng and Cheok, 2008). This is supported by the findings from Idham et al. (2013) that developer's

reputation had a big influence on consumers' decisions to buy houses. The best course of action is to carefully construct communication tactics based on possible clients and try to make sales to them after carefully considering all that has been explained. Gaining a positive image and reputation is one of the most important tasks to be completed in this industry, and even companies operating in this industry for an extended period of time might choose to use branding to set their special services apart from competitors (Karaduman and Kaya, 2016).

RESEARCH METHODOLOGY

The study's target population is made up of persons who participate in working groups in Kota Bharu. According to statistics from the Malaysian Department of Statistics (2020), there are roughly 1.89 million people living in Kelantan, with 608,600 of them residing in Kota Bharu. This study distributed 400 questionnaires in order to get at least 382 replies as recommended by Krejcie and Morgan (1970).

By utilizing the SPSS scree plot and the statistical method of parallel analysis, it is possible to determine the number of components in this study that should be kept as the factor for analysis. The Kaiser-Meyer-Olkin (KMO) Test was used to establish whether the data was appropriate for factor analysis, and factor analysis was conducted as a result of the significant KMO findings. Factor analysis, in general, is one of the best methods for studying and validating an instrument's internal structure (Nunnally, 1978; Pedhazur & Schmelkin, 1991; Kieffer, 1999; Henson & Roberts, 2006). The Principal Axis Factor and Promax Rotation, as well as a reliability test, were used in this study to examine the instruments. Seven multiple regression assumptions, including normality, normality of the error term, linearity, multicollinearity, constant variance, outliers, and autocorrelation, were evaluated before regression analysis. The final step was to utilize bootstrapped multiple regression to examine the factors that influence homebuyers' decisions. The measurement items and their sources are exhibited as below:

Table 2 Measurement Items for The Variables and sources

Variable	Sources	No of Items
Purchase Decision	Chin (2016)	6
Quality	Lip and Tan (2014) and Chin (2016)	5
Price	Zyed (2014) and Lin (2016)	7
Location	Shaqra'a et al. (2015)	6
Promotion	Mohammadzadeh (2015) and Lin (2016)	6
Corporate Image	Chia et al. (2016)	6

ANALYSIS AND FINDINGS

Table 3 Respondent's Profile

	Categories	Frequency (n=389)	Percentage (%)
Gender	Male	153	39.3
	Female	236	60.7
Marital Status	Single	81	20.8
	Married	303	77.9
	Divorce	5	1.3
Education Level	SPM	32	8.2
	STPM/ Diploma	82	21.1
	Bachelor Degree	201	51.7
	Master	55	14.1
	PhD.	15	3.9
	Others	4	1
Employment Sector	Professional	35	9
	Public Sector	150	38.6
	Private Sector	145	37.3
	Self Employed	52	13.4
	others	7	1.8
Age	< 21 Years	2	0.5
	21-30 Years	78	20.1
	31-40 Years	181	46.5
	41-50 Years	109	28
	> 50 Years	19	4.9
Household Size	0-2 Persons	60	15.4
	3-4 Persons	132	33.9
	5-6 Persons	142	36.5
	7-8 Persons	48	12.3
	> 8 Persons	7	1.8

The following is a quick description of the respondents' demographics. Table 3 revealed that at 236 respondents, women make up more than half of the

respondents (60.7 percent). The remaining 153 responses are men (39.3 percent). Out of 382 samples, there are 81 single (20.8%), 303 married (77.9%), and 5 divorced (1.3%). More than half of respondents (201 @ 51.7%) have bachelor's degrees, followed by 82 respondents (21.1%) with STPM or Diploma, 55 respondents (14.1%) with master's degrees, 32 respondents (8.2%) with SPM certificates, 15 respondents (3.9%) with PhDs, and the balance was (1.0%) with other education levels. In terms of age, there are 181 respondents (46.5%) between 31 and 40 of age, 109 respondents (28.0%) between 41 and 50, 78 respondents (20.1%) between 21 and 30, 19 respondents (4.9%) are above 50, and two respondents (0.5%) are discovered to be under 21. 150 respondents (38.5%) work in the public sector, followed by 145 respondents (37.3%) in the private sector, 52 respondents (13.4%) are self-employed, 35 respondents (9.0%) are professionals, and the remaining (1.8%) are employed in other occupations.

When using Kaiser-Meyer-Olkin (KMO) to determine whether the data were appropriate for factor analysis, the test returned a result of 0.885, indicating a meritorious index. Similar to this, the results of the Barlett's test are significant (p <0.001). These results demonstrated that the data were appropriate for factor analysis. The diagonal value with the letter "a" next to each value in the table within SPSS (not displayed) was examined to ascertain the Anti Image Correlation, and it was discovered to be more than 0.5 in every case.

Table 4: KMO and Bartlett's Tests

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.885
Bartlett's Test of Sphericity	Approx. Chi-Square	7294.851
	df	406
	Sig.	0.000

The existence of numerous factors influencing decisions to buy a house has been revealed in recent research. Exploratory Factor Analysis was used in this study to inform the system that there were six variables included in the data set. To determine if SPSS analysis and the study's framework consistent, the study extracted six fixed numbers of factors for factor analysis, Principal Axis Factoring and Promax rotation were used, the results demonstrating that the loading (i.e., correlation between the items and construct) and cross loading were both more than 0.5 (see Table 5).

Seven of the identified problematic items (4 from price, 2 from location, and 1 from corporate image variables) were taken from the list because their communality values were less than 0.5 threshold, leaving only 29 of the original 36 items (see Table 5). In addition, Table 5 displays the proportion of variation that can be explained by condensing the prior 29 elements into six factors. This

resulted in a loss of about 30% and a 70% retention of the original 100%. Six factors were ultimately identified by the factor analysis because the number of components that were extracted was in line with the theory by which they could affect the decisions made by homebuyers (see literature review section).

The data set's independent and dependent variables were used to identify the items that fell under particular categories of factors. Following that, items PD1 through PD6 were loaded into Factor 1, whereas things QTY1 through QTY5 were loaded onto Factor 2. Items PRI1 to PRI3 were simultaneously loaded on Factor 3, Items LCT1 to LCT4 were simultaneously loaded on Factor 4, Items PRM1 to PRM6 were simultaneously loaded on Factor 5, and Items CPI1, CPI3, CPI4, CPI5, and CPI6 were simultaneously loaded on Factor 6. Following the identification of Factors 1 through 6 based on the items' loadings on each component, it was suggested that they be named Purchase buying decision, Quality, Price, Location, Promotion, and Corporate Image respectively. The six factors (i.e., purchase buying decision, quality, price, location, promotion, and cooperate image) were then subjected to reliability testing. Nunnally (1978) asserted that established scales should have a reliability of 0.8 to 0.9. Following the testing, it was discovered that all of the Cronbach's alpha values found in this study exceeded 0.80 (see Table 5).

Table 5: Results of Factor Analysis

Items	1	2	3	4	5	6	Communalities
PD1	0.726						0.681
PD2	0.772						0.704
PD3	0.731						0.700
PD4	0.762						0.549
PD5	0.784						0.638
PD6	0.820						0.669
QTY1		0.725					0.636
QTY2		0.906					0.780
QTY3		0.885					0.764
QTY4		0.882					0.766
QTY5		0.846					0.700
PRI1			0.896				0.819
PRI2			0.884				0.791
PRI3			0.906				0.827
LCT1				0.856			0.730
LCT2				0.876			0.777
LCT3				0.686			0.559

LCT4				0.723		0.602
PRM1					0.779	0.627
PRM2					0.798	0.668
PRM3					0.779	0.633
PRM4					0.782	0.628
PRM5					0.818	0.674
PRM6					0.760	0.681
CIG1						0.549	0.525
CIG3						0.905	0.824
CIG4						0.912	0.818
CIG5						0.846	0.709
CIG6						0.806	0.785
Cronbach	0.868	0.901	0.898	0.812	0.889	0.901	
Eigenvalue	8.904	3.089	2.572	2.164	1.889	1.645	
% of Variance	30.703	10.650	8.868	7.461	6.515	5.672	69.869

To get insight and evaluate the relationship between house purchase decisions and its independent factors, Pearson's correlation analysis was then used. Table 6 displayed the findings, which reveal that all independent variables are favourable and modestly connected with decision to buy a house (the dependent variable).

Table 6: Correlations

	PD	QTY	PRI	LCT	PRM	CIG
Purchase Decision (PD)						
Quality (QTY)	0.276					
Price (PRI)	0.138	0.003				
Location (LCT)	0.338	0.252	0.181			
Promotion (PRM)	0.519	0.347	0.170	0.367		
Corporate Image (CPI)	0.325	0.400	0.120	0.350	0.489	

(note: all the variables were significant at α=.01, 2 tailed, N=376)

The assumptions for linear regression must be verified before the study's findings can be interpreted. First, the Webpower multivariate normality testing software was used to assess multivariate normality using Mardia's coefficient (Cain et al., 2017). The multivariate skewness value for Mardia in this case was 4.957 (t=310.580, p<.01), and the kurtosis value was 53.151 (t=5.0973, p<.01). The acquired data was not multivariate normal because the skewness and kurtosis values exceeded the cut-off values of 3 and 20, respectively. Therefore, the

standard errors, t-values, and p-values were produced using bootstrapping processes with a resampling of 1000.

The normality of error terms was then established using a histogram and a normal Probability-P plot. According to the histogram analysis, the residuals for the dependent variable were fairly normally distributed, with mean (-1.48E-15) and standard deviation (0.993) values close to 0 and 1, respectively (refer appendix a). The normal Probability P-Plot showed that some of the spots were very close to the line while others were exactly on the line; as a result, the errors were normally distributed (refer Appendix a). Additionally, a partial regression plot between the dependent and independent variables was used to test the study's linearity; all plots were random and free of any discernible trends (refer Appendix c). Furthermore, the Variance Inflation Factor (VIF), which yielded values lower than 3.3, was used to determine the multicollinearity feature. Apart from one variable with a condition index of 35, all the variables in collinearity diagnostics had values of less than 30. At the same time, it was found that all independent variables had a variance proportion of less than 0.9. As a result, it was established that the data did not exhibit multicollinearity. Meanwhile, the distribution was checked for constant variance in the associated regression studentized residual and regression standardised residual scatter plots (homoscedasticity). The variance was then found to be constant, demonstrating that the constant variance was not problematic (refer Appendix b). Last but not least, the Durbin-Watson value for autocorrelation was 1.905; according to the literature, autocorrelation is unimportant as long as the value is between 1.5 and 2.5.

Table 7: Hypothesis Testing

	Variables	unstd. Beta	Std. Error	t-value	p-value	LL	UL	VIF	F^2	Decision
H1	Quality	0.139	0.083	1.673	0.048	-0.024	0.302	1.254	0.007	Not supported
H2	Price	0.030	0.036	0.829	0.204	-0.041	0.101	1.056	0.0014	Not supported
H3	Location	0.147	0.049	3.030	0.001	0.052	0.243	1.240	0.0244	Supported
H4	Promotion	0.472	0.060	7.910	0.000	0.355	0.590	1.451	0.1693	Supported
H5	Corporate Image	0.038	0.058	0.656	0.256	-0.076	0.152	1.477	0.0014	Not supported

The analysis to predict home purchase decisions for the five factors of quality, price, location, promotion, and corporate image was conducted once the multiple regression assumptions were satisfied. As a consequence, the ANOVA results ($F_{(5, 370)}$ = 32.144, $p < .001$) indicating that the model is statistically significant and that further analysis using regression can be performed. Meanwhile, the SPSS software identified 7 cases as outliers. This is based on Casewise Diagnostics' standard residuals value of greater than $\pm$ 3.3. These 7 cases were thus dropped from the analysis leaving the total equals 382. As a result, the R^2 value increased slightly from 0.295 to 0.303. The value of R^2=0.303 detailed that 30.3% of the house buyer decision could be explained by all four independent variables collectively, whereas the remaining 41.7% denoted the unexplained variance.

Only two of the analysed variables were statistically significant at 1% level and had similar positive values across the confidence intervals. The decision to purchase a home was positively and significantly related with location (B=0.147, $t_{(376)}$=3.030, $p < .01$, BCa 95% CI [0.052, 0.243]) and promotion (B=0.472, $t_{(376)}$=7.910, $p < .001$, BCa 95% CI [0.355, 0.590]). Quality was significant at the 5% level (B=0.139, $t_{(376)}$=1.673, p.05, BCa 95% CI [-0.024, 0.302]), however the confidence intervals ranged from negative to positive values. Effect size was examined to see which variables in the model were substantial. It was discovered that promotion and location both had small and medium effect sizes (F2) respectively. This showed that the most important considerations for home purchase decisions were promotion, followed by location, with quality, price, and corporate image having no effect.

CONCLUSION

The research focused on factors that affect consumers' decisions while buying residential property in Kota Bharu, Kelantan. Based on the 382 responses, the study has concluded that location and promotion have positively impacted consumer housing purchase decisions in Kota Bharu, Kelantan. Kotler and Amstrong (2009) defined promotional techniques as any methods used by a company to explain the benefits and features of its goods and encourage potential customers to make a purchase. Promotion is the most important factor that influences the factors that determine whether someone will buy a home, and this finding is consistent with those of earlier studies by Niazi et al. (2012) and Huang Quang et al. (2019) and Putra (2019), and Brata et al. (2017). This further demonstrates how effective promotion is at persuading people to decide to buy a good or service. By providing information that encourages buying, promotional efforts help consumers decide what to buy.

Additionally, location is another factor found to be influencing a person's decision to purchase a home in Kota Bharu. The house is strategically

situated in relation to the neighborhood's market, schools, and other sites of interest (Yap and Ng, 2018). Plimmer et.al. (2003), Xio and Tan (2006), Asad Poor and Jusan (2012), Rinner and Heppleston (2006) and Monica (2018) provide evidence in favour of the favourable and significant association between location and the decision to buy a home. In other words, when choosing a place to live and work, consumers take location into account.

Price and buying decisions have a favourable association, according to the study. However, the relationship was insignificant. The variable is therefore less important than the other two variables (promotion and location) based on the study's findings. The insignificant impact most likely resulted from consumer perception and knowledge that prices in the Kota Bharu area are marginally higher than those in other Kelantan districts. Since Kota Bharu is a state capital and significant metropolitan hub in Kelantan, it became clear that buyers of homes in this region may often anticipate higher prices and strategic location are in line with the pricing factor.

Quality, which had a positive link with the purchase decision but was not statistically significant, was the fourth independent variable under examination. The lack of importance of quality in this study's buying decisions suggested that consumers are likely aware that developers in Kota Bharu typically offer a limited number of homes, ensuring that each one's quality. Customers are eager to purchase the home regardless of the price offered if the features correspond to their criteria.

The company image comes last but not least. It is a company's whole image; it goes beyond the representation of its products and services (Farida et al., 2018). According to the study, there is a small but beneficial association between the constructed corporate image and the decision to buy. This may be due to the fact that the survey was largely conducted in large cities, where home developers had a good reputation.

This study provided housing developers with an overview of homebuyers' purchasing decisions and revealed the factors new homeowners consider when making a purchase decision. Based upon those, developers may decide what kind of housing has to be built before providing a home that meets market need while utilizing effective marketing strategies to attract potential consumers' interest.

For customers considering buying a home, this study serves as guidance. In light of the many elements examined in this study, homebuyers can comprehend and assess the factors that must be taken into account when deciding their ability to finance a home. The homebuyer will then be able to assess their purchasing power in relation to the cost and type of affordable housing they are interested in, as well as their capacity to make mortgage payments on time each month based on their income level.

In order to realize the goal of ensuring that every person owns a house, it is hoped that this study would give an overview of the responsibilities of policy makers in the implementation of housing plans and regulations. In order to draw investors to the area and plan a development in the state administrative area, this study can also be utilised as a guide. In order to regulate the real estate market and lessen the issue of an excess of housing supply, authorities are also in charge of regulating housing development, where the supply must be made in accordance with the requirements, preferences, and demands of the homebuyers.

REFERENCES

Abllah, N. (2018, October 11). Jumlah Rumah Siap Tidak Terjual Menigkat. Retrieved from BH Online: https://www.bharian.com.my/bisnes/hartanah/2018/10/484651/jumlah-rumah-siap-tidak-terjual-meningkat

Ahmad Syed, Z., Ahmad, N., & Papastathopoulos, A. (2019). Measuring Service Quality and Customer Satisfaction of the Small and Medium Sized Hotels (SMSHs) Industry: Lessons from United Arab Emirates (UAE). Tourism Review, 349-370.

Al-Nahdi, T., Ghazzawi, O., & Bakar, A. H. (2015). Could Behavioral Factors Affects Purchaser's Behavior of Real Estate in Jeddah. *International Journal of Business and Management*, 87-95.

Aragones, J. I., Perez-Lopez, R., & Amerigo, M. (2010). Perception of Personal Identity at Home. *Psicothema*, 872-879.

Asad Poor, J., & Jusan, M. (2012). Exploring Housing Attributes Selection Based on Maslow's Hierarchy of Needs. *Procedia - Social and Behavioral Sciences*, 42, 311-319.

Azad, N., & Roshan, A. (2014). Measuring Purchase-decision Involvement. *Management Science Letter* 4(8), 1859-1864.

Bank Islam. (2015). Malaysia's residential property market. Kuala Lumpur: Economic Research.

Berry, M., & Delton, T. (2004). Housing Prices and Policy Dilemmas: A Peculiarly Australian Problem? *Urban Policy and Research*, 22 (1), 69-91.

Brata, B. H., Husani, S., & Ali, H. (2017). The Influence of Quality Products, Price, Promotion and Location to Product Purchase Decision on Nitchi At PT. Jaya Swarasa Agung in Central Jakarta.

Bujang A. A., Shapee N. A. S., Abu Zarin, H., & Ismail. A. (2017). Factors Influencing The Housing Affordability Stress Among Bumiputera. *International Journal of Real Estate Studies*. 11 (4), 125-127

Cheng, Fan Fah and Cheok, Jason (2008) Importance of branding for property developers in Malaysia. *Sunway Academic Journal*, 5, 65-81.

Dalmendo, C. L. (2020, June 27). Malaysia's Great House Price Boom Is Over. Retrieved from GlobalProperty Guide: https://www.globalpropertyguide.com/Asia/Malaysia/Price-History

Daly, J., Gronow, S., Jenkins, D. and Plimmer, F. (2003), Consumer behaviour in the valuation of residential property: A comparative study in the UK, Ireland and

Australia, *Property Management*, 21(5), 295-314. https://doi.org/10.1108/02637470310508653.

Department of Statistic Malaysia. (2021, Mac 26). The Source of Malaysia Official Statistics. Retrieved from Department of Statistic Malaysia: https://www.dosm.gov.my/v1_/

Elsinga, M., & Hoekstra, J. (2005). Home Ownership and Housing satisfaction. *Journal of Housing and the Built Environment*, 20, 401-424.

Farida, A. R., Fitriana, & Mohammad, N. Z. (2018). The Effects of Corporate Image, User Image, and Product Image Towards Purchasing Interest of Suzuki Motorcycle. DOI: 10.18502/kss.v3i3.1877

Frazer, C. (1979). Consumer Behavior: Concepts and Applications. *Journal of Advertising*, 46-46.

Frederiks, E., Stenner, K., & Hobman, E. (2015). Household Energy Use: Appliying Behavioral Economics to Understand Consumer Decision Making and Behavior. *Renewable and Sustainable Energy Review.* 41, 1385-1394

Harahap, N. Z. (2018). Pengaruh Kualitas Produk, Harga dan Promosi Terhadap Keputusan Pembelian Mie Instan Merek Sedaap Pada Mahasiswa Asrama Putri Universitas Sumatera Utara.

Haussman, R. (2018). Economic Development and the Accumulation of Know How.

Henson, R. K and J. Kyle Roberts (2006), Use of Exploratory Factor Analysis in Published Research: Common Errors and Some Comment on Improved Practice. *Educational and Psychological Measurement.* 66(3), 393-416

Huang Quang, N. G., Thang Quyet, N., Nguyen Thanh, L., Tung Van, T., & Tri, M. H. (2019). Factors Affecting Brand and Student Decision Buying Fresh Milk: A Case Study in Ho Chi Minh City, Vietnam. *The Journal of Asian Finance, Economics and Business*, 6(3), 247-258.

Idham, M., Razak, I., Shaifa, N., Abdullah, H., Hoo, J., & Aliaz, Z. (2013). Purchasing Intention Towards Real Estate Development in Setia Alam, Shah Alam: Evidence from Malaysia. 3(6), 66-75.

Ismail, S. (2019). Rethinking Housing: Between State, Market and Society. *Khazanah Research Institute.*

Karaduman, L., & Kaya, E. (2016). Branded Real Estate Agencies: The Impact of Brand on Consumer Behavior in Real Estate Market. International Journal of Research, 3(4), 5-14.

Karsten, L. (2007). Barbara Adam, Time. Time & Society, 16(1), 131-134. https://doi.org/10.1177/0961463X07074107

Kieffer, K. M. (1999). An introductory primer on the appropriate use of exploratory and confirmatory factor analysis. *Research in the Schools*, 6, 75-92.

Kohler, M. J. (2013). Why You Should Be Investing Your Money in Real Estate? Entrepreneur.

Kotler, P., & Amstrong, G. M. (2009). Marketing: An Introduction. Pearson Prentice Hall.

Kotler, P., & Armstrong, G. (2006). Principles of Marketing. Perason Prentice Hall.

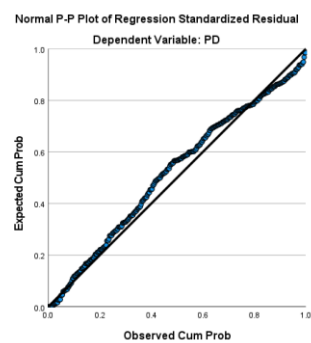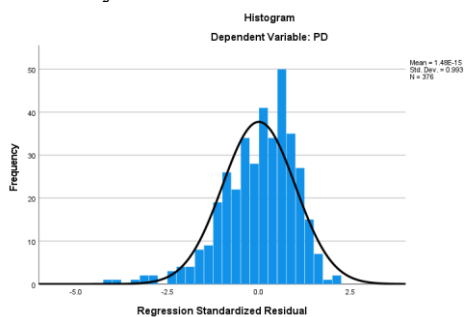Kotler, P., & Levy, S. (1969). Broadening the Concept of Marketing. Journal of Marketing, 10-15.

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activity. *Educational and Psychological Measurement*, 30, 607-610.

Liew, C., & Haron, N. A. (2013). Factors Influencing the Rise of House Price in Klang Valley. *International Journal of Research in Engineering and Technology*, 2(10), 261- 272.

Lip, S., & Tan, T. (2014). Factors Affecting the Purchase Decision of Investors in the Residential Property in Malaysia. *Journal of Surveying, Construction and Property (JSCP*), 5(2), 1985-7527.

Malaysian Department of Statistics. (2020). Kelantan Socioeconomic Report. Putrajaya: Malaysian Department of Statistics.

Mang, J., Zainal, R., & Mat Radzuan, I. S. (2018). Influence of Location Attributes on Home Buyers' Purchase Decision. *International Journal Supply Chain Management.*7(3).

Mariadas, P. A., Abdullah, H., & Abdullah, N. (2019). Factors Effecting Purchasing Decision of Houses in the Urban Residential Property Market in Klang Valley, Malaysia. *Journal of Social Science and Humanities.* 16(4), 1-9.

Maslow, A. H. (1943). A Theory of Human Motivation. *Psychological Review.* 50 (4), 370-396.

Monica, E. (2018). Pengaruh Harga, Lokasi, Kualitas Bangunan dan Promosi Terhadap Minat Beli Perumahan Taman Safira Bondowoso. *International Journal of Social Science and Business.* 2(3), 141-149.

Nasar, K. K., & Manoj, P. K. (2015). Purchase Decision for Apartments: A Closer Look Into the Major Influencing Factors. *CLEAR IJRMST*, 4(8).

Nguyen, N., Leclerc, A., & Leblanc, G. (2013). The Mediating Role of Customer Trust on Customer Loyalty. *Journal of Service Science and Management*, 6, 96-109

Niazi, G., Siddiqui, J., Shah, B., & Hunjra, A. (2012). Effective Advertising and Its Influence on Consumer Buying Behavior. *Information Management and Business Review*, 4(3), 114-119.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Olanrewaju, A. L., Lim, X. Y., Tan, S. Y., Lee, J. E., & Adnan, H. (2018). FACTORS AFFECTING HOUSING PRICES IN MALAYSIA: ANALYSIS OF THE SUPPLY SIDE. *PLANNING MALAYSIA*, 16(6). https://doi.org/10.21837/pm.v16i6.477

Pedhazur, E. J. , & Schmelkin, L. P. (1991). Measurement, design, and analysis: An integrated approach. Hillsdale, NJ: Lawrence Erlbaum.

Poudyal, N. C., Hodges, D. G., & Merrett, C. D. (2008). A Hedonic Analysis of the Demand for and Benefits of Urban Recreation Parks. *Land Use Policy.* 26(4), 975-983

Putra, E. (2019). The Influence of Promotion and Brand Image Toward Purchase Decision of Honda Vario. *e-Jurnal Apresiasi Ekonomi*, 7(1), 121-127.

Rachmawati, D., Shukri, S., Azam, S. F., & Khatibi, A. (2019). Factors Influencing Customers' Purchase Decision of Residential Property in Selangor, Malaysia. *Management Science Letter*, 9, 1341-1348.

Rahman, M. M. (2008). The Australian Housing Market – Understanding the Causes and Effects of Rising Prices. *Policy Studies*, 31(5), 577-590.

Rahmiati, F., Tahir, M., & Mubarak, Z. (2017). Corporate Image Influencing Customers' Purchase Decision in Minimarket in Bekasi. *Advanced Science Letters*. 23(8), 7838-7840.

Spetic, W., Kozak, R., & Cohen, D. (2005). Willingness to Pay and Preferences for Healty Homes Attributes in Canada. *Forest Product Journal*, 55 (10), 19-24.

Streimikiene, D. (2015). Quality of Life and Housing. *International Journal of Information and Education Technology*, 5(2), 140-145.

Tan, T. H., & Saw, L. S. (2014). Factors Affecting the Purchase Decisions of Investors in the Residential Property. *Journal of Surveying Construction and Property*. 5(2). 1-13.

Tjiptono, F. (2018). *Pemasaran strategik*. 4th ed. Yogyakarta: Andi publisher.

Xio, Q., & Tan, R. (2006). Signal Extraction With Kalman Filter: A Study of the Hong Kong Property Price Bubbles. *Urban Studies*. https://www.researchgate.net/publication/5182614_Signal_Extraction_with_Kalman_Filter_A_Study_of_the_Hong_Kong_Property_Price_Bubbles

Yap, J.B.H. and Ng, X.H. (2018), Housing affordability in Malaysia: perception, price range, influencing factors and policies, *International Journal of Housing Markets and Analysis*, 11(3), 476-497. https://doi.org/10.1108/IJHMA-08-2017-0069

Yip, C.Y., Senadjki, A., Au Yong, H.N. and Abdul Adzis, A. (2021), Mitigating housing glut: an application to the Malaysian housing market, *International Journal of Housing Markets and Analysis*, 14 (3), 498-522. https://doi.org/10.1108/IJHMA-04-2020-0037
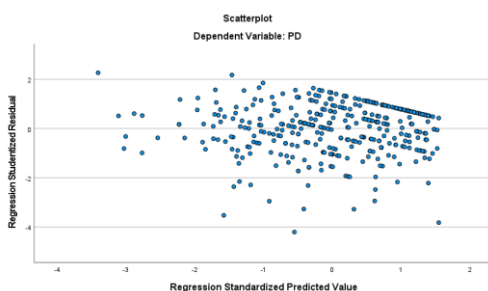
APPENDIX

a) Normality of Error Terms

b) Constant variance

c)Linearity

Partial Regression Plot
Dependent Variable: PD

Partial Regression Plot
Dependent Variable: PD

Partial Regression Plot
Dependent Variable: PD