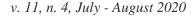


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# DETERMINANTS OF CUSTOMER'S APARTMENT PURCHASE INTENTION: IS THE LOCATION DOMINANT?

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#### **ABSTRACT**

The purpose of this research is to identify and measure the factors affecting the intention to buy apartments of customers in Ho Chi Minh City, Vietnam. The survey carried out with the participation of 200 customers. The authors explore five factors which affect customer's apartment purchase intention include location, features, brand, finance, and subjective norm. The result from Exploratory Factor Analysis (EFA) shows that location, features, finance, and subjective norm have a significant effect on the intention to buy customers' apartments. In which, location in Ho Chi Minh City context is the most influential factor, so, it strongly confirm the research of Adair et al. (1996), Clark et al. (2006), Daly et al. (2003), Kaynak and Stevenson (2007), Opoku and AbdulMuhmin (2010), Sengul et al. (2010), Tu and Goldfinch (1996), Xiao and Tan (2007) and Wang and Li (2006). The study also proposes some recommendations to increase the attractiveness of the apartment. What is more, developers, marketers, real estate policymakers can use the results of this research to understand the needs of customers better and satisfy customers.



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**Keywords**: Location, features; brand; finance; subjective norm: purchase intention

1. INTRODUCTION

People have many places to go, but the only one to come back is home. Living and

working in peace and contentment, owning a home is always the desire of everyone. For many

households, owning a home is not only for a place of residence but also a valuable asset for

households (GEERTMAN, 2003). Residential income has improved, living standards have

increased markedly; the demand for housing of the people has increased. As the global

population continues to increase, the shortage of housing in many developing countries has

reached a critical level (MOREL, 2001).

In big cities such as Ho Chi Minh City and Hanoi, the increase in the density of

population and the limiting of the land fund leads to increasing real estate prices. So this is

more and more difficult to buy the house. Real estate is one of the most important things for

people, so buying a home can change their lives (WELLS, 1993).

Moreover, to choose a place to live so that the customer can buy a comfortable house

at a reasonable price. The apartment is the solution to this complex urban problem. Because

the apartment has many features, the apartment is becoming the trend of many people who

need to settle down and real estate investors. In the issues raised for sustainable development,

the apartment is a specific product, leading the HCMC housing market. How to create the best

product which meets customer's demand in this increasingly competitive market is the first

problem to be solved.

According to Haddad et al. (2011), to maintain a competitive market, real estate

marketers must keep in mind that buying behavior will be considered carefully. Buying an

apartment is one of the most important economic decisions, and it requires collecting much

information regarding features, quality, facilities, design, and prices and its environment

(HADDAD et al., 2011; ZADKARIM; EMARI, 2011; KIEFER, 2007).

Accordingly, with the viewpoint of "He who sees through life and death will meet most

success," so real estate developers must understand the psychology of buyers, know what they

need, what they want, and their aspirations. At the same time, market researchers, as well as

real estate brokers, need to find out which factors affect the buying intention to offer products

that best suit the needs of customers.

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# 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

# 2.1. Theoretical background

• Condominiums and apartment

According to Article 3, Housing Law 2014, condominiums are houses with two or more floors, many apartments, walkways, standard stairs, private ownership, joint ownership, and lower construction systems shared floors for households, individuals and organizations, including condominiums built for residential purposes and condos established for the purpose of mixed-use for residential and business objectives. Notably, an apartment is a living unit, for a household, in an apartment building.

• Intention

According to Krueger (1993), to come to any behavior, the individual must feel the problem before doing so. That feeling plays a decisive role in making or not doing. Intention represents the level of commitment to behavior that will be implemented in the future. Through various studies, it is thought that intention is a premise of an intended behavior (KRUEGER et al., 2000) and intentions are the best predictions for performance behavior (LUTHJE; FRANKE, 2004).

In one of his studies, Fishbein and Ajzen (1975) analyzed more clearly the intentions with its manifestations. The intention involves four different components: behavior, goal (target) - subject matter to target, a situation that the behavior is performing, time but behavior ongoing (FISHBEIN; AJZEN, 1975). According to Ajzen (1991), the intention is a motivational factor, which motivates an individual to be willing to perform the behavior. When people have a strong intention to engage in a specific behavior, they are more likely to perform that behavior.

The intention of action defined by Ajzen (2002) is human action directly affected by attitude, subjective norms, and behavior control awareness. The stronger these beliefs, the higher the intention of human action. In it, the attitude is "an individual's assessment of the results of an act.

Regarding the intention to buy, Kotler (1991) argued that, in the evaluation phase of the purchase plan, consumers scored different brands and formed the intention to buy. Dodds et al. (1991) indicated that the intention to buy represents the ability of consumers to buy a particular



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product. Long and Ching (2010) conclude that the intention to buy represents what an individual wants to buy in the future.

The intention to buy is "what we think we will buy" (SAMIN et al., 2012). It can also be defined as an active decision that shows the behavior of the individual according to the product (SAMIN et al., 2012).

## 2.2. Research model and hypothesis

Based on the results of previous studies on the intention of customer behavior and the actual situation in the study area, this study proposes five factors affecting the intention to buy apartments in Ho Chi Minh City: Location (LOC), Features (FE), Brand (BR), Finance (FIN), Subjective Norm (SN).

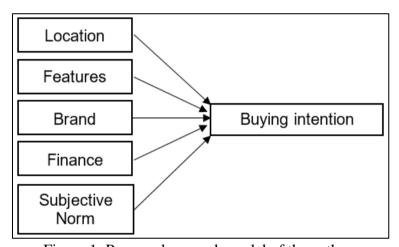


Figure 1: Proposed research model of the authors

Findings from past studies, the location is as one of the most critical factors affecting the individual's decision making in purchasing a house (ADAIR et al., 1996; DALY et al., 2003; KAYNAK; STEVENSON, 2007; SENGUL et al. 2010; XIAO; TAN, 2007). Importantly, location is closely related to distance from various points of interest. Some of the various points of interest to be considered by house buyers are the distance to the central business district, distance to school, and distance to work and distance to retailer outlets (ADAIR et al., 1996; CLARK et al., 2006; OPOKU; ABDULMUHMIN, 2010; TU; GOLDFINCH, 1996; WANG; LI 2006).

In Malaysia, studies also found that locational attributes appeared to support previous studies' findings whereby location was considered an essential consideration for house buyers (RAZAK et al., 2013; TAN, 2011). In this study, distance is defined as the strategic location of the house from several essential points, such as business area, school.



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• H1: The location has a positive effect on buying apartment intention of the customer.

House features include house design, building quality, interior and exterior designs, or finishing which these features are expected to influence an individual's house purchase decision (ADAIR et al., 1996; DALY et al., 2003; SENGUL; YASEMIN; EDA, 2010; OPUKU; ABDUL-MUHMIN, 2010). Several scholars found that these house features are essential factors in determining consumers' choice and purchase of a house (EL-NACHAR, 2011; HADDAD; JUDEH; HADDAD, 2011; SENGUL et al., 2010). Hence, this present study refers house features as internal house attributes such as quality of the building, the design, as well as interior and exterior design; which are essential for a consumer when they select and purchase a house.

• H2: Features has a positive effect on buying apartment intention of the customer.

Kotler and Armstrong (2001) define marketing as the science and art of discovering, creating, and providing value to meet the needs of the target market with profits. Marketing identifies unfulfilled needs and desires. It identifies, measures, and quantifies the size of the identified market and profit potential. It identifies precisely which segment the company has the best ability to serve, and it designs and promotes appropriate products and services. In this study, focus on advertising factors, reputation, and reputation of developers (HADDAD et al., 2011). According to Foi (2007), the research presented on brand awareness is an aspect that affects customer satisfaction. The more popular the brand, the higher the level of awareness, the more likely it is to affect customers' intentions.

• H3: Brand has a positive effect on buying apartment intention of the customer.

Past researchers defined financial status concerning house buying a combination of house price, mortgage loans, income, and terms of repayment (OPOKU; ABDUL-MUHMIN, 2010; ZHOU, 2009). In other words, this definition refers to mortgage availability, terms of purchase, house price, assessment value of the property, the opportunity for quick appreciation, and waiting period (HADDAD et al., 2011). Remarkably, several past studies found that the financials of the house has much influence on how consumers make their house choice (ADAIR et al., 1996; DALY et al., 2003; KAYNAK; STEVENSON, 2007; SENGUL et al. 2010; XIAO; TAN, 2007). In the Malaysian context, the study by Razak, Ibrahim, Hoo, Osman, and Alias (2013) confirmed that financial consideration, especially house price, has a strong influence on house purchase intention.

• H4: Finance has a positive effect on buying apartment intention of the customer.



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Subjective norms are the standard belief of a personal belief that is influenced by others like family members who think whether an individual should perform a particular behavior (RIVIS; SHEERAN, 2003). Usually, an individual will perceive the pressures placed on them whether to perform the behavior or not (AJZEN, 1991; HAN; KIM, 2010). Many studies show that the reference group has a strong positive influence on purchase intention (PANTHURA, 2011; NUMRAKTRAKUL et al., 2012; RAZAK et al., 2013). Songkakoon et al. (2014) believe that children and spouses are the main parties that will change their intention to buy home-related decisions in their Thai culture. Al-Nahdi et al. (2015) also find that there is a positive impact between subjective norms on the intention to buy real estate in Jeddah and similar cases in Malaysia (MDRAZAK et al., 2013).

• H5: Subjective norm has a positive effect on buying apartment intention of the customer.

Generally, the intent is a sign that a person is willing to perform a specific behavior, and it is considered a premise of immediate behavior (SHEN, 2009). The intention is an indication of a person's willingness to perform the behavior, and it is an immediate antecedent of behavior (NAHDI; HABIB; ALBODOUR, 2015). The intention is that the dependent variable predicted by an independent variable is attitude (AJZEN; FISHBEIN, 1980; AJZEN, 1991; TAYLOR; TODD, 1995; HAN; KIM, 2010). Therefore, in the case of apartment purchasing, the intention to purchase is an antecedent of a purchase decision (NUMRAKTRAKUL; NGARMYARN; PANICHPATHOM, 2012; PHUNGWONG, 2010).

Table 1: Variables in the research model

No.	Items	Variables				
LOCAT	LOCATION					
1	LOC1	Nearby working place				
2	LOC2	Nearby school				
3	LOC3	Nearby shopping mall				
4	LOC4	Nearby downtown				
5	LOC5	Nearby high way				
6	LOC6	Peaceful living environment				
FEATU	RES					
7	FE1	Good design				
8	FE2	Beautiful view				
9	FE3	Appropriate size				
10	FE4	High quality				
BRAND						
11	BR1	Broad advertising				
12	BR2	Credibility				
13	BR3	Reputation				
FINANO	CE					
14	FIN1	House Price				
15	FIN2	Monthly income				

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16	FIN3	Loan Repayment Duration			
17	FIN4	Monthly Repayment			
SUBJEC	CTIVE NORM				
18	SN1	My family thinks that I should buy a house			
19	SN2	I will buy the house my family advise me to buy			
20	SN3	Before I make a decision, I always collect house information from			
		family and friends.			
BUYING	G INTENTION				
21	BI1	I want to buy the house			
22	BI2	I will try to buy housing frequently in the future			
23	BI3	I plan to buy the house			
24	BI4	I intend to buy the house in the future			
25	BI5	I will continue to buy the house in the future			

#### 3. METHODOLOGY

Based on the research model, refer to the research profiles from different sources to establish a survey questionnaire that clarifies the factors affecting the intention of buying customers' apartments. The authors collect customer information through survey questionnaires delivered directly and Google form tool for online survey.

The complete questionnaire consists of two parts. Part one is a demographic survey of eight questions. Part two is the factors affecting the intention to buy a client's apartment with five factors that combine scales such as a nominal scale and Likert with five levels: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree to measure values. The study was carried out with 25 variables. To reach the minimum number of samples, the sample size must be at least 125 elements (= 5 \* 25 observed variables).

So choose 200 as the number of research samples for the report. The analytical data were collected by non-probability sampling method according to the convenient sampling method in Ho Chi Minh City in the period from February 2019 to May 2019. Study to use the method of measuring scales with Cronbach's Alpha coefficients, exploratory factor analysis (EFA), Pearson analysis, and multivariate regression analysis.

## 4. DATA ANALYSIS AND RESULTS

## 4.1. Data description:

Table 2: Data description

		Frequency	Percent	Cum. Percent
Gender	Men	99	49.5	49.5
Gender	Women	101	50.5	100
	Under 25 years old	33	16.5	16.5
A go	25-35 years old	100	50	66.5
Age	36-45 years old	47	23.5	90
	Over 46 years old	20	10	100
Marital status	Single	79	39.5	39.5
iviai ital status	Intended	45	22.5	62



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	Married	76	38	100
	High school	18	9	9
	College degree	26	13	22
Education	Bachelor degree	128	64	86
background	Master degree	11	5.5	91.5
	PhD/Dr degree	2	1	92.5
	Others	15	7.5	100
	Worker	7	3.5	3.5
	Officer	53	26.5	30
Occupation	State employees	11	5.5	35.5
Occupation	Private enterprise	21	10.5	46
	Business	37	18.5	64.5
	Other	71	35.5	100
	Under one year	59	29.5	29.5
EXPERIENCE	One - three years	60	30	59.5
EAPERIENCE	Three to five years	30	15	74.5
	Over five years	51	25.5	100
	Under five million VND	28	14	14
	6-10 million VND	62	31	45
INCOME	11-20 million VND	64	32	77
	21-30 million VND	25	12.5	89.5
	Over 31 million VND	21	10.5	100
	Living	138	69	69
PURPOSE	For lease	26	13	82
FURPUSE	Investment (re-sale)	33	16.5	98.5
	Others	3	1.5	100

Gender: In the 200 survey questionnaires, 99 men accounted for 49.5%, and 101 women accounted for 50.5%. The ratio of men and women is similar, which is consistent with practical observations.

Age: The results show that 33 customers who are under 25 years old (accounting for 16.5%) are mostly young people who like modernity and comfort. Customers from 25-35 years old have 100 people (accounting for the highest percentage of 50%). This age group is mostly grown up with the demand for buying housing. Customers from 36-45 years old with 47 people (accounting for 23.5%) are a group of people with stable incomes, who intend to buy apartments to live or invest. There are 20 customers aged 46 and older (accounting for 10%) who are middle-aged people who intend to stay, invest, or buy to make property.

Marital status: There are 79 unmarried customers (accounting for 39.5%), with attention to the type of apartments for the young and modern. Forty-five customers are about to get married and intend to buy an apartment to prepare for marriage and build a home. There are 76 customers out of 200 survey results that are married (accounting for 38%). These families are those who wish to own a home or intend to buy an apartment as a profitable investment channel.

Education: The survey showed that 18 educated clients are high school students (9%), there are 26 college-level clients (accounting for 13%), 128 customers have university degrees



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(accounting for 64% have The highest rate), there are 11 masters (accounting for 5.5%). 2

customers have a doctorate (accounting for 1%), and another level is 15 (accounting for 7.5%).

In the research sample, it shows that the proportion of customers with university and

postgraduate degrees is quite high, it can be assessed that this is a highly educated and

knowledgeable customer in society.

Occupation: Through the process of surveying and analyzing data, seven customers are

workers and accounted for 3.5%. It is the occupation group with the lowest percentage of the

surveyed occupational groups. Besides, there are 53 office workers and accounted for 26.5%.

Public servants, private enterprises, and other careers such as doctors, technicians, freelancers

are accounted for 5.5%, 10.5%, and 35.5% respectively.

Working seniority: Of the 200 people surveyed, 59 clients had a working year of less

than one year (accounting for 29.5%). Customers in this group have just started work; their

income has not been stable. There are 60 clients with working age from 1 to under three years

(accounting for 30%). 30 senior clients are working from 3 to under five years (accounting for

15%). Moreover, 51 customers have worked for more than five years (25.5%). IT is a group of

customers who have stabilized their jobs and tend to stick with their jobs and stable income.

Income: There are 28 customers with incomes below 5 million (accounting for 14%),

there are 62 customers with incomes between 6-10 million (accounting for 31%), there are 64

customers with income from 11-20 million (32%) — customers with income from 21-30

million account for 12.5% with 25 customers. Finally, customers have income from 31 million

21 guests (accounting for 10.5%). For a property of significant value like home, customers

need to have a stable income to own, and pay for the services and utilities every month to meet

the needs of daily life.

Purpose of buying apartments: From the research shows, 138 customers intend to buy

apartments to stay (accounting for the highest rate of 69%). It can be seen that the surveyed

clients have a high demand for accommodation and desire to choose an apartment to build a

family. Twenty-six customers intend to buy for rent (accounting for 13%). Thirty-three

customers buy for resale (accounting for 16.5%) and three customers who buy to make assets,

make long-term money keeping the channel, and have high-profit potential, easily change the

purpose of use.

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## 4.2. Reliability test: Cronbach's Alpha

Table 3: Results of testing the reliability of the scale

Reliability St	Reliability Statistics								
Factors	The number of variables	Cronbach's Alpha	Corrected Item- Total Correlation	Note					
LOC	6	0.782	>= 0.451	Reject LOC5 (0.244)					
FE	4	0.807	>= 0.565						
BR	3	0.812	>= 0.630						
FIN	4	0.823	>= 0.601						
SN	3	0.664	>= 0.444						
BI	5	0.808	>= 0.504						

In the obtained results, the variable LOC5 (Location nearby high way) has the total variable correlation coefficient of 0.244 <0.3, and if this type of variable is found, the Cronbach's Alpha coefficient will increase from 0.753 to 0.782, so this variable type. Test results after the variable type show that the variables have a correlation coefficient of greater than 0.3 and Cronbach's Alpha coefficients if the variables are smaller than the Cronbach's Alpha coefficients, so they are statistically significant.

# **4.3.** Exploratory Factor Analysis (EFA)

Table 4: Result of exploratory factor analysis

	Component Matrix	•				
Factors	Vowiables	Component				
ractors	variables	1	2	3	4	5
ES	Component   1   2   3   4   1   2   3   4   1   2   3   4   1   2   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   1   3   4   4   4   4   4   4   4   4   4					
<b>K</b>	Beautiful view (FE2)	0.764				
(FE)	High quality (FE4)	0.733				
LOCATION FEATURES (LOC) (FE)	Appropriate size (FE3)	1 2 3 4  0.818  0.764  0.733  0.655  C3)  0.771  C1)  0.734  0.733  0.697  t (LOC6)  (FIN3)  0.875  0.871  0.628  0.595  0.8871  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8847  0.8848  0.8848  0.8849  0.8848  0.8849				
Z	Nearby shopping mall (LOC3)		0.771			
10 3	Nearby working place (LOC1)		0.734			
(LOC)	Nearby school (LOC2)		0.733			
(T)	Nearby downtown (LOC4)		0.697			
$\Gamma$	Peaceful living environment (LOC6)		0.655			
FINANCE (FIN)	Loan Repayment Duration (FIN3)			0.875		
NAN( (FIN)	Monthly Repayment (FIN4)			0.871		
N E	Monthly income (FIN2)			0.628		
	House Price (FIN1)			0.595		
<b>£</b> _	Reputation (BR3)				0.858	
BRAND (BR)	Broad advertising (BR1)				0.847	
BK (	Credibility (BR2)				0.823	
Z	I will buy the house my family advise me to buy (SN2)					0.819
SUBJECTIVE NORM (SN)	My family thinks that I should buy a house (SN1)					0.752
BJ. OR	Before I make a decision, I always collect house					0.604
SC	information from family and friends. (SN3)					0.681
KMO (Kais	ser-Meyer-Olkin)			0.787		
Barlett's: S				0.000		
Eigenvalue				1.565		

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Cumulative (%) 65.35

The EFA analysis results show that the KMO coefficient (Kaiser-Meyer-Olkin) is 0.787> 0.5, showing that factor analysis is appropriate. Barlett's test: Sig = 0.000 <0.05 shows that variables in factor analysis are correlated with each other in the overall. The Eigenvalues value = 1.565> 1 represents the variation part explained by each factor, the factor that draws the most meaningful information. The total variance extracted value: 65.35% indicates that five factors explain 65.35% variation of variables in the data, the model is appropriate — factor loading of all variable is greater than 0.5, indicating a correlation between variables for representative factors.

## 4.4. Regression analysis

Table 5: The Pearson analysis

Correlations									
		BI	LOC	FE	BR	FIN	SN		
	Pearson coefficient	1	.653**	.404**	.110	.409**	.431**		
BI	Sig. (2-tailed)		.000	.000	.120	.000	.000		
	N	200	200	200	200	200	200		
	Pearson coefficient	.653**	1	.337**	.056	.314**	.250**		
LOC	Sig. (2-tailed)	.000		.000	.430	.000	.000		
	N	200	200	200	200	200	200		
	Pearson coefficient	.404**	.337**	1	.166*	.463**	.222**		
FE	Sig. (2-tailed)	.000	.000		.019	.000	.002		
	N	200	200	200	200	200	200		
	Pearson coefficient	.110	.056	.166*	1	.057	.110		
BR	Sig. (2-tailed)	.120	.430	.019		.425	.122		
	N	200	200	200	200	200	200		
	Pearson coefficient	.409**	.314**	.463**	.057	1	.219**		
FIN	Sig. (2-tailed)	.000	.000	.000	.425		.002		
	N	200	200	200	200	200	200		
	Pearson coefficient	.431**	.250**	.222**	.110	.219**	1		
SN	Sig. (2-tailed)	.000	.000	.002	.122	.002			
	N	200	200	200	200	200	200		
	elation is significant at the lation is significant at the (								

Before conducting the regression analysis, the study used the Pearson correlation coefficient to quantify the degree of rigidity of the linear relationship between variables. The results of the correlation analysis with Pearson show that: Sig value between the brand and buying intention factor is 0.120 greater than 0.05, so it is not statistically significant, in other words, there is no correlation between the two variables.

Sig coefficients of the variables location, finance, features, and subjective norm are less than 0.05 and the correlation coefficients of the variables are positive, so these factors have positively correlated with the buying intention variable. In particular, the most influential factor



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to the variable buying intention is the location factor (r = 0.653), the factor with the lowest correlation to buying intention is the factor features (r = 0.404).

From the results table, most Sig coefficients between independent variables are less than 0.05, so the multicollinearity phenomenon should likely be checked when regression analysis. The adjusted R2 coefficient is 53.2%, indicating that five independent variables affect 53.2% of the variation of the dependent variable, the remaining 42.8% is due to out-of-model variables and random errors.

Durbin-Watson has a variable value between 0 and 4. The result of looking at the Durbin Watson table with k = 5, n = 200, The result is dL = 1.623 and dU = 1,725, dU < 1,950 < 4dU, respectively 1,725 <1,950 <4 - 1,725 (= 2,275). Thus, there is no self-correlation phenomenon in the linear regression model. The research model satisfies the conditions of assessment and verification of suitability for research results because the sig value of F test is 0.000 < 0.05. Thus, the linear regression model is suitable.

Table 6: Results of regression analysis

Co	oefficients <sup>a</sup>								
Model		Unsta	andardized	Standardized	t	Sig.	Collinearity Statistics		
		Coe	efficients	Coefficients					
		В	Std. Error	Beta			Tolerance	VIF	
	(Constant)	072	.288		249	.803			
	LOC	.504	.053	.509	9.552	.000	.830	1.205	
1	FE	.105	.056	.107	1.872	.063	.722	1.386	
	FIN	.134	.052	.144	2.569	.011	.749	1.336	
	SN	.250	.052	.246	4.807	.000	.901	1.110	
	BR	.023	.039	.029	.588	.557	.966	1.035	
Adjusted R Square								0.532	
Durbin-Watson 1.950							1.950		
Sig 0.000									

Sig coefficient: With the reliability of 95%, the sig coefficient of regression of the independent variables such as location, finance, and the subjective norm is smaller than 0.05, so these independent variables are statistical significance and able to explain the dependent variable. The Sig coefficient of the features (or apartment characteristics) is 0.063, higher than 0.05, but the features variable is still statistical significance with 90% confidence level. Besides, the Sig coefficient of a brand variable is 0.577 > 0.05, and in the Pearson analysis, so the brand variable does not affect the intention to buy the apartment of the customer.

The standardized regression coefficients Beta show that the beta coefficients are greater than 0, indicating that the accepted independent variables have a positive effect on the customers' decisions. The independent location variable has the largest Beta coefficient of 0.509, so it has the most influence on the change of the dependent variable. Most of the



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customers intend to buy an apartment because of their convenient location, meeting their daily activities such as near work, shopping, entertainment. So the location factor has the greatest

impact on the intention of buying customers.

Secondly, the subjective norm and finance with a beta coefficient of 0.246 and 0.144

respectively effect to the intention of buying customers' apartments. The least influential factor

is features with Beta equals 0.107. The standardized regression value of the subjective norm

variable shows that the reference to family, friends, and relatives also affect customers'

intention to buy. Moreover, the settlement is an important issue for people, so many customers

need to have references from people around when they intend to buy an apartment. The

standardized regression value of the finance variable shows that finance affects the intention

of buying customers' apartments. Apartments are a big asset, so the problem of solving

financial problems also has a significant influence on the intention to buy apartments.

The standardized regression value of the features variable is 0.107, meaning features

affect the intention of purchasing customers. The customers said that the apartment that they

wanted to buy must have a beautiful design, beautiful view, excellent construction quality, and

apartment size suitable for them. Variance inflation factor (VIF) coefficient of all variables is

less than 2, so it can be concluded that there is no multicollinearity phenomenon between

independent variables.

5. CONCLUSION

**5.1.** Conclusion

The authors have proposed a research model consisting of five factors based on

precursor studies and practical observations in the process of working in the real estate industry.

After analyzing indicators, sufficiently reliable factors, EFA factor analysis, regression analysis

and elimination of unsatisfactory variables, this study has identified four factors that affect the

intention to buy that apartment is location, finance, subjective norm, and features. The brand

variable is excluded because in regression analysis with Sig coefficient = 0.557 > 0.05, it rejects

the brand hypothesis that has a positive effect on the intention of buying customers' apartments.

According to the regression results, the location has the greatest impact on the intention

to buy apartments (Beta = 0.509, Sig = 0.000). In particular, customers are very interested in

the location which close to the workplace, school, city center, or shopping mall to serve daily

activities. Besides, they are also concerned about the living environment. The surveyed

customers do not want their apartment is located near the highway. The reason is that the

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density of large vehicles in Ho Chi Minh City is relatively high, frequent accidents, large trucks moving at high speed significantly affect the living of people.

The subjective norm variable has the second effect on the buying intention (Beta = 0.246, Sig = 0.000). Buying a house has a great meaning for every person. Most of the customers surveyed are customers who buy to settle so they cannot decide by herself/himself. The surveyed customers agreed that family, friends, and relatives influenced their intentions. They feel more secure when their choice supported by their friends and relatives than having no supporting. They also collect information about apartments from people around when they intend to buy apartments.

The findings of this study provide evidence that finance has a significant positive effect on buying intention (Beta = 0.144, Sig = 0.011). Without financial preparation and financial balance, buying a house will be difficult. Customers want to buy an apartment that is suitable for their finance, with many flexible policies from investors such as original debt grace, interest rate support. Flexible payment policies will significantly affect the consideration of apartment selection, from the price of apartments, how much to pay, how well the payment periods are carefully considered.

Results of regression analysis with Beta = 0.107 with Sig coefficient of 0.063 < 0.1 (90% reliability) shows that apartment features affect the buying apartments intention. Customers agree that they like apartments with beautiful designs such as flexible layout, maximum direction to welcome the sun and wind for the apartment. They also want the apartment to have a beautiful view of sightseeing and relaxation when at home. Also, the majority of customers believe that the apartment they buy needs to be a size suitable for finance as well as following the number of family members. Besides, the construction quality of the apartment is also a factor that customers care.

In the study, customers did not think that they would buy an outspread advertised apartment. The big promotion of an apartment only shows the ability to communicate; the distribution system is sound, has not confirmed whether the apartment is perfect and suitable for their needs or not. The investor plays an essential role in buying apartments. However, in the mid-end segment, these customers are more interested in the factors mentioned above. The growth of investors or their reputation is also one of the bases to make the selling price of apartments higher than that of smaller investors. Therefore, the image of the investor has not affected too much the intention of buying customers' apartments.

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5.2. Recommendation

Many of the real estate investors often said "location, location, location" because of the

vital role of location in real estate. The areas near the center will always have higher prices due

to the convenience for work, education, health, or entertainment of the people. However, real

estate in the suburbs of Ho Chi Minh City has been the focus of investors when gradually

completing the roads; transportation is easy and convenient, synchronized planning and

especially the price of apartments in the coastal areas are still extremely reasonable, towards

most people with middle income.

It is a large potential customer that needs to be fully exploited. Investors should consider

their financial potential, pay attention to the development potential of the real estate, and have

a long-term vision of the future of the region for accurate judgment and investment. Investors

need to choose the location that best suits their finance and customers, as well as capture the

tendency of customers. Priority should be given to locations such as near schools, labor-

intensive areas, near shopping, entertainment, and secure and quiet residential areas.

Accordingly, the location to buy is an apartment located in the suburbs or near the

center, with an ideal radius of 10-12km back or located in the urban embellishment area,

densely populated population such as schools, shopping centers, offices.

Research shows that customers who intend to buy an apartment are consulted with

family, relatives, and friends. Therefore, developers, as well as counselors, not only persuade

customers to spend money to buy but also to convince as many people as possible. Increasing

the level of brand awareness for customers by building a brand identity system to raise

customer awareness, creating a sense of business size is prestige and quality. Consultants, as

well as product distribution units, need to build professional, conscientious, and enthusiastic

images with customers, build professional distribution channels, modern facilities to build the

right image.

One of the other important issues when the customers buy real estate in general and

apartments, in particular, is finance. Customers always consider carefully to choose an

apartment suitable for their ability to pay. Investors need to research the market carefully to

make the price reasonable and competitive. The payments and the accompanying support loan

policy always occupy the great interest of customers besides the price of apartments.

Customers want to know how much the initial money I spent, then pay each installment,

should use the payment method of the Investor to receive the incentives or use the loan policy

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of the supporting bank. Therefore, to increase the interest of customers for apartments, customers have more choices, investors should diversify payment policies. Offer attractive

discounts if customers pay quickly, pay once, 1% / month. It is combined with banks to offer

attractive loan policies with many incentives such as low-interest rates, support grace of

principal, interest.

One factor to consider is the characteristics of the apartment. For customers who buy in, apartments they buy will be a long-term place for them and their families. The Investor should choose excellent and knowledgeable design units to optimize the apartment use area, arrange flexible space, feng shui, create more space to expand the excellent view. In order to have reasonable prices for affordable customers, it is necessary to design an apartment with a

reasonable area but still fully functional for the daily activities of the family. Investors should

also pay attention to selecting a construction contractor and a reputable monitoring unit to

ensure the quality of the project.

5.3. Limitation and future research

Due to limited time and survey condition, the research has some limitation. Firstly, the surveyed customers are relatively young and belong to some areas, so they have not accurately reflected the intention of customers in all areas. Secondly, the topic is only done in one time so the results may be appropriate to the current research period; the later stages cannot be confirmed. Third, the study only reused the existing model. Fourth, this study only focused on investigating five factors affecting the intention to buy condominiums. The results of the regression analysis show that these variables explain 52.2% of the fluctuation of the intention of customers. Thus, 47.8% of the variation of the intention to buy apartment buildings is

of customers. Thus, 47.8% of the variation of the intention to buy apartment buildings i

explained by factors outside the model, which are factors not mentioned in the proposed

research model.

In the next research, the authors will increase the sample size in the direction of increasing the survey sample rate compared to the overall. Include a number of other factors that are thought to affect the intention of buying customers' apartments into the proposed research model via explore new factors affect customers' intention to buy. Further research directions can go deeper into the factors affecting the intention to buy apartments for investment or the intention to buy luxury apartments, town houses, villas.

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DOI: 10.14807/ijmp.v11i4.1100

#### REFERENCES

ADAIR, A.; BERRY, J.; MCGREAL, S. (1996) Valuation of residential property: Analysis of participant behaviour. **Journal of Property Valuation & Investment**, v. 14, n. 1, p. 20-35.

AJZEN, I. (1991) The theory of planned behaviour. **Organizational Behaviour and Human Decision Processes**, v. 50, p. 179–211.

AJZEN, I. (2002) Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. **Journal of Applied Social Psychology**, v. 32, n. 4, p. 665–84.

AJZEN, I.; FISHBEIN, M. A. (1980) Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice Hall.

AL-NAHDI, T. S.; HABIB, S. A.; ALBDOUR, A. A. (2015) Factors influencing the intention to purchase real estate in Saudi Arabia: Moderating effect of demographic citizenship. **International Journal of Business and Management**, v. 10, n. 4, p. 35-48.

ANDERSON. J.; GERBING, D. (1988) Structural equation modeling in practice: A review and recommended two-step approach. **Psychological Bulletin,** v. 103, n. 3, p. 411-423.

CHIA, J.; HARUN, A.; KASSIM, A. W. M.; MARTIN, D.; KEPAL, N. (2016) Understanding Factors That Influence House Purchase Intention Among Consumers In Kota Kinabalu: An Application Of Buyer Behavior Model Theory. **Journal of Technology Management and Business**, v. 3, n. 2, p. 94-110.

CHUNG, C. Y.; YEONG, W. M.; LOW, M. P.; UNG L. Y. (2018) Purchase Intention Of Residential Property In Greater Kuala Lumpur, Malaysia. **International Journal of Asian Social Science,** v. 8, p. 45-47.

CLARK, W.; DEURLOO, M.; DIELEMAN, F. (2006) Residential mobility and neighborhood outcomes. Housing Studies, v. 21, p. 323-342.

DALY, J.; GRONOW, S.; JENKINS, D.; PLIMMER, F. (2003) Consumer behaviour in the valuation of residential property: A comparative study in the UK, Ireland and Australia. **Property Management**, v. 21, n. 5, p. 295-314.

DODDS, W. B.; MONROE, K. B.; GREWAL, D. (1991) Effects of price, brand and store information on buyers' product evaluations. **Journal of Marketing Research**, v. 28, n. 3, p. 307-320.

EL-NACHAR, E. (2011) Design quality in the real estate market: clients' preferences versus developers' interests. **International Journal of Architectural Research, v.** 5, n. 2, p. 77-90.

FISHBEIN, M.; AJZEN, I. (1975) **Belief, Atitude, Intention and Behavior: An Introduction to Theory and Research**, Addision-Wesley, Reading, MA.

FOI D.; M. (2007) The influence of brand awareness on the relationship between perceivedservice and customer satisfaction, Master thesis, MIT Taiwan.

GRANDON, E. E.; PETER P. MYKYTYN, J. (2004) Theory-Based Intrustmentation to Mearsure The Intention to Use Electronic Commerce in Small and Medium Sized Business. **The journal of Computer Information System,** v. 44, n. 3, p. 44-57.

HADDAD, M.; JUDEH, M.; HADDAD, S. (2011) Factors affecting buying behavior of an apartment and empirical investigation in Amman, Jordan. **Applied Sciences, Engineering and Technology**, v. 3, n. 3, p. 234-239.



http://www.iimp.ior.br

ISSN: 2236-269X

DOI: 10.14807/ijmp.v11i4.1100

v. 11, n. 4, July - August 2020

HAIR, ANDERSON, TATHAM (1998) Multivariate Data Analysis. Prentical-Hall International.

HAIR, J.; BLACK, W.; BABIN, B.; ANDERSON, R.; TATHAM, R. (2006) Multivariate data analysis (6th ed.) Uppersaddle River, N.J.: Pearson Prentice Hall.

HAN, H.; Y. KIM, (2010) An investigation of green hotel customers decision formation: Developing an extended model of the theory of planned behavior. **International Journal of** Hospitality Management, v. 29, n. 4, p. 659-668.

HOANG, T.: CHU N. M. N. (2008) Phân tích dữ liêu nghiên cứu với SPSS, NXB Hồng Đức.

HOUSING LAW (2014) Luât số 65/2014/QH13. https://thuvienphapluat.vn/van-ban/Batdong-san/Luat-Nha-o-2014-259721.aspx

HUA KIEFER, M. A.; (2007) Essays on applied spatial econometrics and housing economics. Ph.D. Thesis, Ohio State University, USA.

JABAREEN, Y. (2005) Culture and Housing Preferences in a Developing City. **Environment and Behavior**, v. 37, n. 1, p. 134-146.

KAMAL, M.; PRAMANIK, S. A. K. (2015) Customers Intention towards Purchasing Apartment in Dhaka City, Bangladesh: Offering an Alternative Buying Intention Model. **European Journal of Business and Management**, v. 7, n. 35, p. 45-58.

KARUNARATHNE, L.; ARIYAWANSA, R. G. (2015) Analysis of House Purchase Intention, Sri Lankan Journal of Management, v. 20, n. 3, p. 28-51.

KAYNAK, E.; STEVENSON, L. (2007) Comparative Study of Home Buying Behaviour of Atlantic Canadians. **Home Buying Behaviour**, p. 3-11.

KHALED, M. C.; SULTANA, T.; BISWAS, S. K.; KARAN, R. (2012) Real estate industry in Chittagong (Bangladesh): A survey on customer perception and expectation. **Developing Country Studies**, v. 2, n. 2, p. 38-45.

KHRAIS, I. M. (2016) Factors Affecting The Jordanian Purchasing Behavior Of Housing Apartments: An Empirical Study In Irbid City. European Scientific Journal March, v. 2, n. 7, p. 446-458.

KICHEN, J. M.; ROCHE, J. L. (1990) Life-care resident preferences. In R. D. Chellis & P. J. Grayson (Eds., p. Life care: A long-term solution, 49-60. Lexington: MA Lexington.

KIM, Y.; HAN, H. (2010) Intention to pay conventional-hotel prices at a green hotel? A modification of the theory of planned behavior. Journal of Sustainable Tourism, v. 18, n. 8, p. 997-1014.

KINNARD, W. N. (1968) Reducing uncertainty in real estate decisions. The Real Estate **Appraiser**. V. 34, n. 7, p. 10-16.

KOTLER, P. (1991) Marketing Management: Analysis, Planning, Implementation, and Control, 7th ed, NJ: Prentice Hall.

KOTLER, P.; ARMSTRONG, G. (2001) Principles of Marketing (9th ed) New Jersey: Prentice Hall.

KRUEGER, N. F.; REILLY, M. D.; CARSRUD, A. L. (2000) Competing models of entrepreneurial intentions. **Journal of Business Venturing**, v. 15, n. 5–6, p. 411–432. doi: 10.1016/S0883-9026(98)00033-0



http://www.ijmp.jor.br

v. 11, n. 4, July - August 2020

ISSN: 2236-269X

DOI: 10.14807/ijmp.v11i4.1100

KRUEGER, N. F.; CARSRUD, A. L. (1993) Entrepreneurial intentions: applying the theory of planned behaviours. **Entrepreneurship and Regional Development,** v. 5, n. 4, p. 315–330.

LABIB, S. M.; BHUIYA, M. M. R.; RAHAMAN, M. Z. (2013) Location and size preference for apartments in Dhaka and prospect of real estate market. **Bangladesh Research Publications Journal**, v. 9, n. 2, p. 87-96.

LEISER, K.; GHOR, A. P. (2011) **The determinants of international commercial real estate investments**. The working paper – WP-935, IESE Business School- University of Navarra. Retrieved from http://www.iese.edu/research/pdfs/DI-0935-E.pdf

LIKERT, R. (1932) A technique for the measurement of attitudes. **Archives of Psychology**, v. 22, n. 140, p. 1–55.

LONG, Y. L.; CHING, Y. L. (2010) The influence of corporate image, relationship marketing, and trust on purchase intention: the moderating effects of word-of-mouth. **Emerald Group Publishing Limited**, v. 65, n. 3, p. 16-34.

LUTHJE, C.; FRANKE, N. (2003) The "making" of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. **R&D Management**, v. 33, p. 135-147.

MDRAZAK, M. I.; IBRAHIM, R.; HOO, J.; OSMAN, I.; ALIAS, Z. (2013) Purchasing intention towards real estate development in SetiaAlam, Shah Alam: Evidence from Malaysia. **International Journal of Business, Humanities and Technology,** v. 3, n. 6, p. 66-75.

MOHIUDDIN, M. (2014) The real estate business in Dhaka city: Growth and contribution to the economy of Bangladesh. **IOSR Journal of Business and Management (IOSR-JBM)**, v. 16, n. 4, p. 58-60.

MOREL, J. C.; MESBAH, A.; OGGERO, M.; WALKER, P. (2001) Building houses with local materials: Means to drastically reduce the environmental impact of constructions. **Building Environment**, v. 36, p. 1119-1126.

NGUYEN, C. P. (2013) **Nghiên cứu những yếu tố ảnh hưởng đến ý định chọn mua căn hộ chung cư trung cấp, bình dân của người mua nhà lần đầu tại TP.HCM**, Luận văn Thạc sĩ, Khoa Quản trị kinh doanh Trường Đại học Kinh tế TP.HCM.

NGUYEN, Q. T. (2014) Một số yếu tố tác động đến quyết định chọn mua căn hộ chung cư cao cấp của khách hàng tại Thành phố Hồ Chí Minh. **Phát triển Kinh tế,** v. 279, p. 92-107.

NUMRAKTRAKUL, P.; NGARMYARN, A.; PANICHPATHOM, S. (2012) Factors affecting green housing purchase. International Business Research Conference (17<sup>th</sup> ed) Toronto, Canada.

OPOKU, R. A.; ABDUL-MUHMIN, A. G. (2010) Housing preferences and attribute importance among low-income consumers in Saudi Arabia. **Habitat International**, v. 34, p. 219-227.

PANTHURA, G. (2011) **Structural equation modeling on repurchase intention of consumers towards OTOP food.** Paper Presented at The International Conference on Advancement of Development Administration 2011 (ICADA 2011): Governance and Poverty Reduction in Developing Countries, 33-36.



http://www.ijmp.jor.br

v. 11, n. 4, July - August 2020

ISSN: 2236-269X

DOI: 10.14807/ijmp.v11i4.1100

PHUNGWONG, O. (2010) **Factors influencing home purchase intention of Thai single people.** Doctoral dissertation, International graduate school of business, University of South Australia, Adelaide, Australia.

RAZAK, I.; IBRAHIM, R.; HOO, J.; OSMAN, I.; ALIAS, Z. (2013) Purchasing Intention towards Real Estate Development in Setia Alam, Shah Alam: Evidence from Malaysia. **International Journal of Business, Humanities and Technology**, v. 3, n. 6, p. 66-75.

RIVIS, A.; SHEERAN, P. (2003) Descriptive norms as an additional predictor in the theory of planned behavior: A meta-analysis: Developmental, Learning, Personality, Social. **Current Psychology**, v. 22, n. 3, p. 218-233.

SAMIN, R.; GOODARZ, J. D.; MUHAMMAD, S. R.; FIROOZEH, F.; MAHSA, H.; SANAZ, E. (2012) A Conceptual Study on the Country of Orrginin Effect on Customer Purchase Intention. **Canadian Center of Science and Education**, v. 8, n. 12, p. 205-215.

SEKARAN, U. (2003) Research methods for business: A skill-building approach (4th ed.) New York: John Wiley & Sons, Inc.

SEKARAN, U.; BOUGIE, R. (2013) Research Methods for Business. A Skill Building Approach (6thed.) Cornwall: John Wiley & Sons Ltd.

SENGUL, H.; YASEMIN, O.; EDA, P. (2010) The assessment of the housing in the theory of Maslow's hierarchy of needs. **European Journal of Social Sciences**, v. 16, n. 2, p. 214-219.

SONGKAKOON, P.; NGARMAYARN, A.; PANICHPATHOM, S. (2014) **The influence of group references in home purchase intention in Thailand.** Retrieved from http://eres.scix.net/data/works/att/eres2014\_191.content.pdf

SUSILAWATI, C.; ANUNU, F. B. (2001) **Motivation and Perception Factors Influence Buying Home Behavior in Dilly**, East Timor. Proceedings of the 7th Pacific Rim Real Estate Society Annual Conference, p. 1-77.

TAYLOR, S.; TODD, P. A. (1995) Understanding information technology usage: A test of competing models. **Information Systems Research**, v. 6, n. 2, p. 144-176.

TU, Y.; GOLDFINCH, J. (1996) A two-stage housing choice forecasting model. **Urban Studies**, v. 33, n. 3, p. 517–537.

WELLS, W. D. (1993) Discovery oriented consumer research. **Journal of Consumer Research**, v. 19, n. 4, p. 489-504.

WERNER, P. (2004) Reasoned Action and Planned Behavior. In S.J. Peterson & T.S. Bredow, **Middle range Theories: Application to Nursing Research**, Lippintcott Williams & Wilkins, Philadelphia, p. 125-147.

XIAO, Q.; TAN, G. (2007) Signal extraction with kalman filter: A study of the Hong Kong property price bubbles. **Urban Studies**, v. 44, n. 4, p. 865-888.

YONGZHOU, H. (2009) Housing price bubbles in Beijing and Shanghai. **International Journal of Housing Markets and Analysis,** v. 3, n. 1, p. 17-37.

ZADKARIM, S.; EMARI, H. (2011) Determinants of satisfaction in apartment industry: Offering a model. **Journal of civil engineering and urbanization**, v. 1, n. 1, p. 15-24.

ZADKARIM, S.; EMARI, H.; SANATKAR, S.; BARGHLAME, H. (2011) Environmental quality as an important dimension of customer satisfaction in apartment industry. **African Journal of Business Management**, v. 5, n. 17, p. 7272-7283.

