

# Purchase Intention of an Apartment: An Application of Theory of Planned Behavior (TPB)

Rezki Tegar Wibawa<sup>1</sup>, Hartoyo<sup>2</sup>, Sri Hartoyo<sup>3</sup>

<sup>1</sup>School of Business, Bogor Agricultural University, Indonesia

<sup>2</sup>School of Business, Bogor Agricultural University, Indonesia

<sup>3</sup>Faculty of Economics and Management, Bogor Agricultural University, Indonesia

**Abstract:** *The objective of this study was to identify and analyze the factors affecting Theory of Planned Behavior (TPB) on the interest in buying an apartment in Bogor. This study employed online survey method in data collection. Structural Equation Model (SEM) method through Theory of Planned Behavior (TPB) approach as well as descriptive approach were utilized in data analysis. The data were obtained from 153 respondents categorized as having interest and ability to own an apartment in Bogor City. The results showed that there was a positive and significant effect on the interest of buying an apartment in Bogor City. Based on Theory of Planned Behavior (TPB), attitude and subjective norm variable had a significant effect on the purchase interest of an apartment, while perceived behavioral control variable had no significant effect on the purchase intention of an apartment.*

**Keywords:** apartment, purchase interest, TPB

## 1. Introduction

Indonesian economic development encourages the property sector to grow significantly which was predicted to reach 8-10 percent in 2016 (Anton 2016). The growth is also driven by the increasing level of income in Indonesia due to the growing economic condition (Sidabutar 2012) and the rising needs of residential place especially in big cities like Bogor City. Currently, there are many big cities experiencing a quite significant growth of vertical residence.

Infrastructure development greatly influences the development of vertical residence in Bogor. The population growth in Bogor increases about 1 percent per year owing to a number of urban people entering the city. In addition, Bogor is one of the cities located close to the capital city of Jakarta which is the center of Indonesian economy. The increasing population growth leads to the increasing need for residence especially experienced by the middle to upper class. According to Gaol and Rachmawati (2013), the middle and upper economic communities choose residence based on strategic location considering their jobs. It can be seen that the growing construction of apartments or flats is very influential for people who need a residential place close to the downtown or a quite strategic one.

Considering the limited land availability and the high price of land which increased by 25 percent (Azkia, 2015), Bogor City government as a city planning observer is required to build a vertical residence in order to meet the needs of its people (Metropolitan, 2017). This growing supply of vertical residence in the form of apartments or flats is associated with the somewhat high demand for apartments, both from the lower middle and the upper middle class. According to Ihsan (2016), the development of apartments in Bogor in the next five years will increase significantly to nine times the supply in 2015. According to Erawan (2014), the sales of apartments in Bogor were among the highest level, which amounted to

34.7 percent. Bogor City itself is a large area but it is experiencing a crisis of limited land for the central area of the city, so that the infrastructure development is significantly directed to the suburbs.

Putri et al (2012) stated that the main purposes of buying an apartment are to rent it back or for investment and as a second home. According to study conducted by Arijani (2016) regarding The Preference of Dwellers Living in a Subsidized Apartment of The Modern Golf Tangerang City, the apartment location in the downtown and the ease of reaching other activity centers make this apartment suitable for the residents within productive age which is identical with high mobility and focusing on the income increase. Kartamiharja (2015) in the study regarding Factors Causing the Purchase of Apartment stated that the main reason of buying an apartment expressed the most by the respondents was for investment. The second reason is the strategic location factor of the apartment.

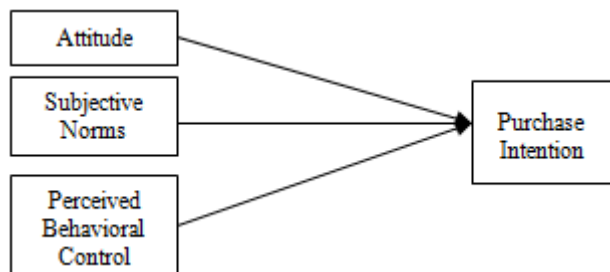
This study aims to identify and analyze the factors of Theory of Planned Behavior on the interest of buying an apartment in Bogor City.

## 2. Research Elaborations

The sampling method used in this research was nonprobability sampling, specifically convenience sampling technique. The respondents are 153 people who have the interest and ability to own an apartment in Bogor. The data were collected through the online questionnaire made using Google Docs. The structured questions (closed) type was employed for the questionnaire.

The methods of analysis used in this study were descriptive analysis and Structured Equation Modeling (SEM) analysis through Theory of Planned Behavior (TPB) approach. The data obtained were processed using Microsoft Excel 2013

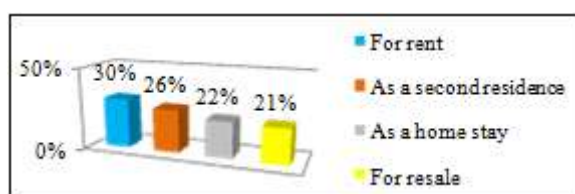
and Lisrel 8.7. According to Sumarwan (2011), TPB is a model of attitude that estimates consumer interest or intention to perform a behavior or action. TPB model explains that the major factor affecting a person's behavior is his intentions or his tendency to perform such action. The model of this study is shown in Figure 1, with the independent variables consisting of attitude, subjective norms, and perceived behavior control and the dependent variable of purchase intention (Ajzen 1991).



**Figure 1:** Theory of Planned Behavior Research Method

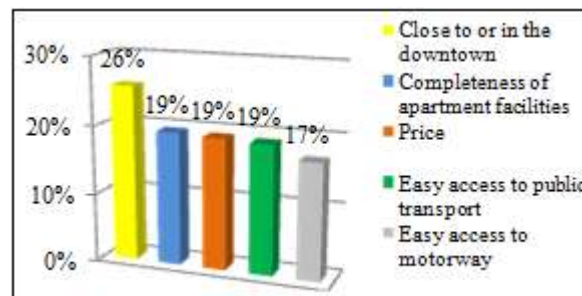
### 3. Result and Discussion

Characteristics of respondents consist of domicile, age, marital status, education, job, and income. In terms of domicile, 26.1 percent of the respondents live in Bogor District. The respondents who are interested in the purchase of apartments are mostly aged between 25 to 30 years old with the percentage of 66.7 percent. In terms of marital status, 53 percent of the respondents have yet to be married and are expected to stay with their parents and have an interest in owning an apartment in the future. The majority of the respondents have bachelor (S1) degree, a job as a private employee (39.2 percent), and income less than Rp 10.000.000 (32.7 percent). It reflects the price of an apartment unit desired by the consumers.



**Figure 2:** Purpose of buying an apartment

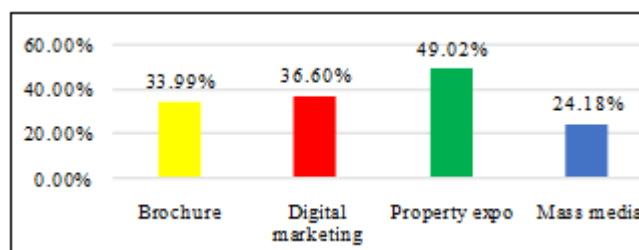
The survey result revealed that the first-ranked purpose of purchasing an apartment is for rent with the percentage of 30 percent, as can be seen in Figure 2. In other words, the main reason of the respondents in owning an apartment is as an investment. According to Kartamihardha (2015), the main reasons encouraging the respondents' interest to buy an apartment were the multiplied value of investment, the high rental price, and the promising selling value.



**Figure 3:** Considerations in buying an apartment

It can be seen in Figure 3 that 26 percent of the respondents consider the location (close to or in the downtown) the most in buying an apartment. The strategic location of an apartment can facilitate consumer mobility. It shows that the more strategic the location offered, the more increased consumer purchase decision (Widyasari and Fifiia, 2009).

The result showed that 45 percent of the respondents choose an ideal apartment area of 30-40m<sup>2</sup>. It indicates that consumers want a sufficient area with two bedrooms in one apartment unit which is enough for one family. The facility that is highly desired by the respondents is minimarket within the apartment complex to support the availability of their daily needs.



**Figure 4:** Appropriate means of promotions

As portrayed in Figure 4, property expo was assessed as the most appropriate mean to convey the information to the respondents. Consumers prefer the property expo event in order to compare one apartment with another ones.

The apartment ownership level of the respondents is 34.6 percent and 68 percent of them have the interest to repurchase. It means that the respondents who have purchased an apartment have a repurchase interest.

#### 3.1 Structural Equation Model Analysis

In the SEM test, a general evaluation of Goodness of Fit (GOF) between the data and model is conducted. The results of GOF testing, as presented in Table 1, can be used simultaneously or in combination.

**Table 1:** Measurement Model Fit Indices

Goodness-of-Fit	Cut-off-Value	Results	Notes
RMR(Root Mean Square Residual)	≤ 0,05 atau ≤ 0,1	0.068	Good Fit
RMSEA(Root Mean square Error of Approximation)	≤ 0,08	0.062	Good Fit
GFI(Goodness of Fit)	≥ 0,90	0.98	Good Fit
Adjusted Goodness of Fit Index (AGFI)	≥ 0,90	0.97	Good Fit

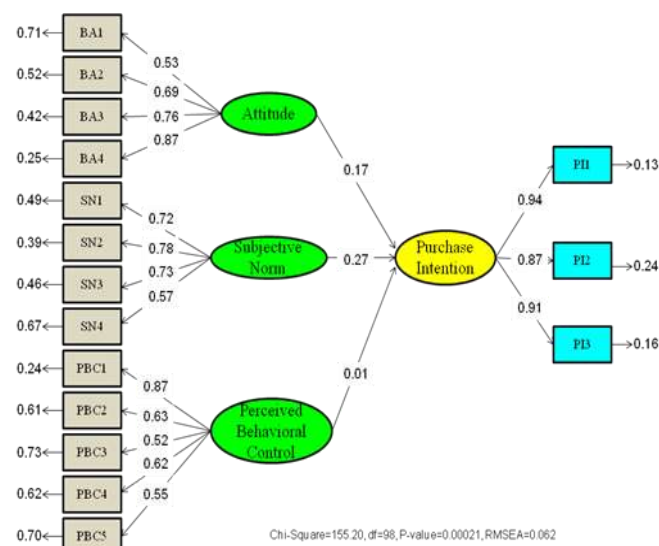
CFI ( <i>Comparative Fit Index</i> )	$\geq 0.90$	1.00	Good Fit
Normed Fit Index (NFI)	$\geq 0.90$	1.00	Good Fit
Relative Fit Index (RFI)	$\geq 0.90$	1.00	Good Fit

Table 1 shows that the RMSEA value was 0.062 with the criterion value of  $\leq 0.08$  which means that the model generated was good (good fit). GFI criterion was able to show how good the model is in explaining the data variance. The GFI value was 0.98 and it suited the good fit criteria because the GFI value of  $\geq 0.90$ . AGFI has similarities with GFI, but it adjusts the effect of degree of freedom on the model. The result of AGFI were categorized as good fit with the value of 0.97.

Other goodness of fit criteria, namely CFI, NFI, and RFI had the value of  $> 0.90$  which means that the model was good (good fit). Similar with other goodness of fit measurement criteria, RMR value showed that the model was a good fit as it had the value of  $\leq 0.1$ . Because all criteria resulted in the conclusion of good fit, the hypothesis testing of the theory can be performed. This also indicates that the results of the questionnaire have been able to answer the developed theory.

### 3.2 Measurement Model Fit

The measurement model is the result of all valid variables and is an advanced stage of the fit of the overall model that has been eliminated.



**Figure 5:** Measurement Model Fit Indices

An indicator variable is considered to be valid when it has a standardized loading factor value of more than tolerable loading factor limit of  $\geq 0.50$  (Igbaria et al., 1997) and has a t-value of more than 1.96 (Wijanto, 2008). Based on the above picture, it is visible that all variables met the validity requirement as indicated by the standardized loading factor value of more than 0.5 and the t-value of more than 1.96 (significant).

### 3.3 Behavior Attitude Indicator Variable

Among the indicators that become the latent variables of behavior attitude, there were four indicators which have a

significant criteria with the loading factor value and t-value as presented below.

**Table 2:** The loading factors of behavior attitude

Indicator	Std Loading Factor	t-value
Buying an apartment is a useful decision to have a second residential place (BA1)	0.53	11.07
Buying an apartment is a wise decision for the future (BA2)	0.69	12.12
Buying an apartment is a good idea at the present time (BA3)	0.76	13.37
Buying an apartment is the right decision (BA4)	0.87	12.75

Table 2 reveals that the four indicators had a loading factor of more than 0.5. The contribution level is determined by the loading factor value. The higher the loading value, the greater the contribution of the indicator on the variable it influences. BA4 and BA3 were indicators which contributed the most in determining purchase interest. The greatest contribution coming from BA4 indicates that a strong trust that buying an apartment is the right decision has not been grown in the mind of the respondents. In consequence, the developer management must be able to convince the consumers that they have chosen the right decision in investing in the form of apartment.

### 3.4 Subjective Norm Indicator Variables

The level of one's behavior is influenced by subjective norms (Ajzen 1991). Subjective norm reflects the belief of whether other people, either friends or family, are able to affect the behavior in buying an apartment. Indicators that significantly affect the subjective norm variable can be seen in Table 3.

**Table 3:** The loading factors of subjective norm

Indicator	Std Loading Factor	t-value
My family thinks that I should buy an apartment at the present time (SN1)	0.72	11.02
Friends advise me to buy an apartment at the present time (SN2)	0.78	15.24
My family suggests that buying an apartment is important (SN3)	0.73	12.53
I bought an apartment because saw my friends did so (SN4)	0.57	14.41

Table 3 points that the contribution level of SN1 indicator and SN3 indicator were almost the same, as reflected by the difference of their loading factor value which was only 0.01. Based on this result, it can be said that suggestion from friends and family played an essential role in growing consumer interest. Family's thought also became a matter considered when the respondents start to spend their money on vertical residence. SN4 indicator was not really the reason for consumer to immediately buy an apartment. In other words, marketers must continue to conduct promotional activities in order to provide more information for the public regarding apartment sale. According to Widyasari and Fifi (2009), the more attractive the promotions made by the company, the more improved the consumer purchase decision on the product offered.

### 3.5 Perceived Behavioral Control Indicator Variable

Perceived behavioral control indicator variable consists of several latent indicator variables in determining buying interest. Each indicator has a value of loading factor and t-value as follows.

**Table 4:** The loading factors of perceived behavioral control

Indicator	Std Loading Factor	t-value
I have the ease to access information from the marketers to make a decision in buying an apartment (PBC1)	0.87	11.48
I have a lot of time to make a decision in buying an apartment (PBC2)	0.63	9.91
I have enough money to buy an apartment (PBC3)	0.52	10.18
I have enough knowledge about the apartment to make my own personal decision (PBC4)	0.62	8.23
I am the one who control the whole apartment purchase (PBC5)	0.55	8.31

PBC1 indicator contributed the most in developing purchase interest. It indicates that consumer attitude in buying product came from his or her own desire which was encouraged by the ease in accessing information concerning the marketer. The marketer can utilize this matter by using the right means according to the consumer preference, which was through property expo. PBC2 and PBC4 were also the indicators considered by the respondents when they are interested in buying an apartment. PBC5 and PBC3 were the next indicators considered when they felt that they already had enough knowledge and were convinced to buy an apartment.

### 3.6 Relationship between Intention Variable and Purchase Intention

Intention variable consists of three indicators that describe the purchase interest of an apartment in the future. The values of loading factor and t-value of each indicator are revealed in the following table.

**Table 5:** The loading factors of purchase intention

Indicator	Std Loading Factor	t-value
I intend to buy an apartment within the next 1 year (PI1)	0.94	
I plan to buy an apartment within the next 1 year (PI2)	0.87	15.69
I want to buy an apartment within the next 1 year (PI3)	0.91	15.54

Based on the above table, PI1 indicator contributed the most to the purchase interest. It means that after the consumer is interested in buying an apartment, the consumer is expected to eventually purchase the apartment in the future. The respondents also showed a positive response through PI3 indicator which indicates that vertical residence has become a desire from a year earlier. It explains that a prospective consumers indeed need time to grow their interest and plan the purchase. Hence, the marketers need to continue making

an effort in convincing and encouraging the market targets during this time.

### 3.7 Structural Equation Model Results

The Structural Equation Model (SEM) results can be seen in Table 6. The variables which had and had no significant effect on buying interest of apartment were shown based on the t-value and path coefficient.

**Table 6:** Structural Model Result

Relationship between variables	Path coefficient	t-value	Conclusions
Attitude → Intention	0.17	3.41	Significant
Subjective Norm → Intention	0.27	5.93	Significant
Perceived Behavior Control → Intention	0.01	0.21	Not Significant

The estimation parameter of attitude on purchase intention of apartment in Bogor City had a positive (0.17) and significant (3.41) result. Therefore, the hypothesis stating that attitude had a significant effect on the purchase intention of apartment is acceptable. This means that the respondents have believed and had a positive attitude that advantageous things will come in the future by owning an apartment.

The result of this study showed that subjective norm had a positive (0.27) and significant (5.93) effect on the purchase intention of apartment. Therefore, the hypothesis stating that subjective norm positively and significantly affected the purchase intention of apartment is acceptable. It is assumed from the individual trust which strongly associated with strong family and friend relation in Indonesia.

In addition, perceived behavioral control also had a positive (0.01) effect on the intention of buying an apartment, although the t-value is less than 1.96. It means that PBC1 to PBC5 had a low effect on the purchase interest.

## 4. Conclusion

Based on the results obtained, it can be concluded that the attitude and subjective norm were proved to have a positive and significant effect on the purchase intention of apartment in Bogor City. Although not significant, perceived behavioral control variables still had a positive effect on purchase intention.

Accordingly, the strategies that can be recommended for the industry players are as follows.

- 1) Consumers are currently interested in buying an apartment in Bogor City. This indicates that consumer demand for apartment is increasing. Therefore, a marketing strategy is required to increase consumer buying interest and convince them that buying an apartment will be the right decision for long term. It can be done through providing a more comprehensive information regarding the environmentally friendly facilities and strategic location.



- 2) This study is expected to provide information to the industry players about the factors that must be considered to identify the prospective customers of an apartment. Several strategies that can be undertaken especially in Bogor City are providing a price promotion which is logical, affordable, and in accordance with the facilities provided. So that consumers will be interested to buy an apartment.
- 3) Considering the growing need of residential place each year, government needs to facilitate the permit without ruling out the spatial plan (RTRW) of an apartment building as regulated in the instructions of the Ministry of Public Works and Housing and Government Regulation Number 26 Year 2008 concerning the National Spatial Plan.

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## Author Profile

**Rezki Tegar Wibawa** studied in Gunadarma University, majoring in accounting and graduated in 2013. The author experienced working in data entry section in one of the state-owned bank and running his own business. The author continues his study in School of Business, Bogor Agricultural University, majoring in Business Management. The author is interested in general management, business development strategy, and entrepreneurship.