

# WTP

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## Investor's Willingness to Pay in Commercial Property

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*Abstract* – The research objective is to determine willingness to pay investors in property commercial. After that, to find the influence factors of legal, economic, physical, and environmental to willingness to pay investors. Population of this study is investors who desire or have purchased commercial property especially from middle economic class. This analysis uses binomial logistic regression method. The result showed that percentage of willingness to pay by investor is 2.1% - 15%. The results showed that factors of legal, economic, physical, and environmental significant influence to willingness to pay investors in commercial property. The indicators ROI (Return on Investment), building finishing quality, view, and accessibility showed significant partially influence to willingness to pay investors.

**Keywords:** Legal, Economic, Physical, Environmental, Willingness to Pay, Commercial Property

### 1. Introduction

Willingness to Pay (WTP) is one of method that can be used to determine how much consumer willingness to pay for goods or services. In other meaning, WTP is the willingness of consumers to pay in exchange for goods or services that was received. The approach used in WTP analysis is using preferences and consumers' perception on goods or services tariff. The study from Hu, Geertman, and Hooimeijer (2014) show that consumers are willing to pay more to get ease of accessibility to the workplace.

Homburg, Koschate, and Hoyer (2005) assert that good experience from consumers who consume, or conditions which consumers are satisfied with they get, they are willing to repeat that consumption. Consumers will have good experience when consume products that give satisfaction. They will be reluctant to choose other products due to worry or fear. They will consider this condition, so they are willing to do a WTP for that products or services.

In recent years, the commercial property development is experienced a significant development. Simanungkalit (2013) states that commercial property market reach top development in Jakarta and other big cities such as Bali, Bandung, Medan, Semarang, Makassar, Manado, Balikpapan, Pekanbaru and Surabaya. Furthermore, the apartment construction in Surabaya, as the second metropolitan city after Jakarta, showed a growth selling prices approximately 20% annually (Prasetyo, 2013).

Surabaya is the city that attracted many property entrepreneurs. However, the limited land which is reserved for property development will be adapted to market demand. It will push developer to build multi-storeies building such as apartment. Residential property market was being turned into commercial property (Hamidi, 2015). The Director of Ciputra Group, Sugwantono Tanto also declared that residential concept such as condominium hotel (condotel) is the desirable property market in Surabaya (Khartika, 2014). Furthermore, the increase in demand for commercial property is high approximately 60% to 100% (Lukito, 2014).

The significant commercial property development become an interesting phenomenon to study. The research factors willingness to pay on property has been carried out in several countries. These factors are property rights, financial or economic factors, location, and physical factors inherent in property (Hidayat, 2007; Mandell & Wilhelmsson, 2010; Akhlagh, Akbari & Farahmand, 2011). Thus, these factors will be used further in this study.

## **2. Review of Literature**

Pearce, Turner, and Bateman (1994) have explained that Willingness to Pay (WTP) is individual demand to pay for goods or services, which WTP is the maximum price from individual want to pay for goods or services as well as measuring value consumers want to pay for goods or services (Prasmatiwi, Irham, Suryantini, & Jamhari, 2011). According to Dinauli (2001) WTP is considered important as protection for consumers from monopoly power abuse held by company.

The investor is a person who buys an asset with aim to obtain income and build wealth. An asset purchased is a residential type or commercial property or both combinations. Property has been purchased by investors who intended to obtain a Return on Investment (ROI) through a lease income, and resale that property in the future when favorable (capital gains), or both. Investment in property has a long-term goal, for example buy an apartment building (Farlex Financial Dictionary, 2012).

This study will focus on commercial property, which Centre for Architecture and Urban Studies (CAUS, 2001) as declared as commercial property type that has ability to generate cash flow and all aspects of commercialization. Several types of commercial properties are apartments, office buildings, and hotels. Apartment or condominium is a high rise buildings built in a certain environment, which is divided into structured functionally in a horizontal or vertical direction. That each unit can be owned and used separately, especially for stay or live in. It was equipped with parts together, objects together and land together (UU RI No.16 in 1985 is “Rumah Susun”).

Office building is a form of commercial buildings with rooms specially designed for work place. The office building requires design that can accommodate technological futur. The office buildings design related to spatial planning, it is important because it can effect to how many space can be rented out and generate profits for the building owner (Marlina, 2008). Furthermore, hotel is one of accommodations types that use partly or all building for accommodation services; provide food and beverages, and other services for general public that are commercially managed (Keputusan Menteri Parpostel No Km 94/HK/ 103/MPPT 1987).

During on development condominium project in Indonesia, condominium hotel (condotel) is incorporation between condominium concept of ownership and hotel operation in high rise buildings system. Condotel is activity between service sector that used as a venue which has facilities as a home or a residence, entertainment facilities or recreation, with services were luxurious and complete as five-star hotel (Krishna, Warsika, & Frederika, 2013).

Furthermore, commercial property is currently rapid develop, especially in Surabaya. It is necessary to conduct further research related factors into consumer consideration in WTP to commercial property. Several factors already used in previous studies such as legal factors, economic factors, physical factors, and environmental factors (Mills, Parli, & Reynolds, 2008).

First, the land law factor in Indonesia, regulated in Undang-Undang No. 5 in 1960 is Peraturan Dasar Pokok-Pokok Agraria (UUPA). There are several land rights in UU Agraria, especially for commercial property, consist of Surat Hak Milik Strata Title (SHM Strata Title), Hak Guna Bangunan (HGB), and Hak Pakai. That rights are attached to commercial property, where the subject and validity period have been arranged according to the law. Fanning (2005) states that legal factor has a positive influence to property values.

Second, economic factors can be measured by several indicators. First, increasing property prices will constantly results to capital gains (the difference between higher selling price than lower purchase price), it will give profits for investors (Tambunan, 2014). In addition, commercial property also offers a higher profit within turnover division (Return on Investment - ROI) during cooperation period of lease between owner and commercial properties manager, with minimum 3-years cooperation period (Jufri, 2013). Third, economic factors generally represented families with high incomes who are willing to pay more for changes in non-marginal, yet the difference between households that are awareness environmentally and unawareness environmentally or less same for all types of households (Mandell & Wilhelmsson, 2010). It shows that almost half of household, at the purchase time, require maintenance interior or exterior which is adjusted to buyers income.

Third, physical factors consist of outside building appearance, property size, floors number, rooms number, front views, building finishing quality (fully furnish) (Arifin, 2011). Those are variable that consumers consider. The environment or neighborhood is linkage and and location of property that describes where land location or commercial property is located will affect accessibility factor to downtown, highway, airports, and other public facilities (Mubayyinah & Utomo, 2012).

Physical and environmental factors which related to WTP in commercial property (condominiums) in Ishafan Province have done by Akhlagh et al. (2011) using Conceptual Valuation Method (CVM) methods. The results showed 272 people interviewed, 70% (188 people) respondents were willing to live in condominiums and 30% (84 people) were not willing to live in condominiums. 70% individuals and families consisting of two to seven family members were willing to live in condominiums and paid approximately 50% - 60% higher than public housing price. Mandell and Wilhelmsson (2010) also conducted a study on 618 single families in Stockholm; approximately 5% of residential buyers chose a sea view and 29% close to main road.

Other research by Hu et al. (2014) measured the WTP by socio-economic group in Nanjing, China. It showed home prices, environmental pollution, and accessibility to city center, workplaces, and public transport facilities were an important factor for customer to choose apartment. Buyers were willing to pay over 2,147 Yuan/ m<sup>2</sup> for access to workplace can be reached within 20-30 minutes compared to 30-40 minutes, and higher costs 1,832 Yuan/ m<sup>2</sup> for 30-40 minutes travel time compared to travel time more than 40 minutes. Based on this literature, the hypothesis this research is factor of legal, economic, physical and environmental significant influence to willingness to pay in commercial property.

### 3. Methodology

The methodology in this study is asosiatif research. This research aims to determine factors that influence consumers' WTP in commercial property and how much consumer responses that willingness. This research was conducted in commercial property investor in Surabaya, using purposive sampling. The respondent is investors who want to buy or have bought a commercial property and income level approximately below Rp.10,000,000 to Rp.50.000.000 (middle class). The primary data was conducted by distributing questionnaires to 115 respondents.

Furthermore, the primary data will analyze using Binomial Logistic Regression, which previously validity and reliability analysis are tested. Assumption that must be filled is that data have normal distribution. The Omnibus Test of Model Coefficient is performed to determine the significance of logistic models simultaneously, so it can explain or predict independent variable toward dependent variable. The Wald Test is also carried out to test partial significance of each parameter. Then, the-2Log Likelihood Test, Coefficient of Determination, and Matrix Qualification are also test to determine suitability of model and precision tools.

### 4. Results and Discussion

Based on data processing results using by SPSS, demography data of respondents will described in below.

**Table 1. Respondent Characteristic and WTP**

Respondent Characteristic	% Willingness To Pay More Expensively		Total
	0%-2%	2,1%-15%	
<b>Gender:</b>			
Men	33	36	69
Women	22	24	46
	<b>55</b>	<b>60</b>	
<b>Commercial Property Ownership:</b>			
Already have	11	32	43
Do not have	44	28	72
	<b>55</b>	<b>60</b>	
<b>Commercial Property Type:</b>			
Apartments for Rent	34	39	73
Apartment for Sale	6	8	14
Condominium Hotel	15	13	28
	<b>55</b>	<b>60</b>	

Table 1 show that most male and female respondents are willing to pay more between 2.1% to 15%. However, 72 respondents who have never had a commercial property is only willing to pay higher prices in the range 0% to 2%, and 39% of them are willing to pay higher in the range 2.1% to 15%. According to commercial property type, 73 respondents chose an apartment lease; 53% of them chose WTP in range 2.1% to 15% compared to investors who choose buy an apartments and condotel.

**Table 2. Respondent Characteristic to Commercial Property**

Respondent Characteristic	Type of Commercial Property			Total
	Rental Apartments	Apartment Sale	Condominium Hotel	
<b>Gender:</b>				
Men	43	12	14	69
Women	30	2	14	46
	<b>73</b>	<b>14</b>	<b>28</b>	
<b>Age:</b>				
25-35 years	28	5	9	42
36-45 years	32	6	5	43
45-55 years	12	3	13	28
Above 55 years	1	0	1	2
	<b>73</b>	<b>14</b>	<b>28</b>	
<b>Income per Month:</b>				
<10.000.000	37	6	17	60
10.000.000-25.000.000	17	7	8	32
25.000.000-50.000.000	16	1	3	20
>50.000.000	3	0	0	3
	<b>73</b>	<b>14</b>	<b>28</b>	
<b>Commercial Property Ownership:</b>				
Already have	24	7	12	43
Do not have	49	7	16	72
	<b>73</b>	<b>14</b>	<b>28</b>	

Based on the table 2 above, it can be seen from gender, most male and female invest in rental apartments. In terms of age, it showed that 43 respondents between 36-45 years old choose apartment rental. Respondents were aged 45 years and under prefer apartment rental, while respondent between 45-55 years prefer to invest condominium hotel (condotel). The monthly income of respondents from below Rp. 10,000,000 until Rp.50,000,000 shows total 73 respondents select rental apartments as an option to invest. By 72 respondents who do not have a commercial property, 43% of them chose to invest in rental apartments. The majority

of 37% respondents who already have a commercial property, they interest to invest in rental apartments for the first priority and condotel for the second priority. This phenomena also show by respondent who do not have commercial property.

For primary data that before analyse by binomial logistic regression, it will test by validity and reliability test. Four (4) indicator will eliminate because that is not valid, and test will run again without those indicators. Finally, the second tests show valid and reliability test show good score 0.808.

**Table 3. Test Results**

Information		Beta	Sig.
Cronbach's Alpha Based on Standarized Items			0,808
Omnibus Tests	Model		0,000
Wald Tests			
Indicators	Certificate	-0.841	0,078
	ROI	0.521	0,038
	Capital Gain	-0.710	0,080
	Property Price	0.145	0,618
	Property Size	0.037	0,926
	Front View	0.033	0,958
	Property Floor	0.049	0,935
	Number of Rooms	0.089	0,872
	Finishing Quality	-1.264	0,005
	View	1.183	0,001
	Accessibility	1.402	0,016
	Constant	-1.092	0,547
Nagelkerke R <sup>2</sup> Value			0,369

The model for logistic binomial regression describe as below:

$$\ln P/(1-P) = -1,092 - 0,841 \text{ CRTF} + 0,521 \text{ ROI} - 0,710 \text{ CAPG} + 0,145 \text{ PRC} + 0,037 \text{ WIDE} + 0,033 \text{ FRV} + 0,049 \text{ LVL} + 0,089 \text{ TYPE} - 1,264 \text{ FURN} + 1,183 \text{ VIEW} + 1,402 \text{ ACCS}$$

The omnibus test result show p-value < 0.05 is 0.000; that shows factors of legal, economic, physical, and environmental simultaneously is significant influence investors to WTP in commercial property. The wald test result show indicators of certificates, capital gains, apartment price per square meters, property size, front view, floors number, and rooms number have not partially significance influece investor WTP in commercial property, because significant value > 0.05. However, indicator of ROI, building finishing quality, view, and accessibility have partially significant influence investor WTP in commercial property.

2-Log Likelihood Test concludes independent variables were added to models significantly improves the model. Coefficient determination test on Nagelkerke  $R^2$  value declared that legal factors, economic, physical, and environment can explain variation of WTP in commercial property within range 36.9%. Which is show that 48% respondents are willing to pay 0% to 2%, and 52% respondents are willing to pay 2.1% to 15%. The overall percentage results showed 76.5%, it means logistic regression model able to explain actual conditions.

The accessibility factors to the airport, downtown, and highways have been chosen by 31% respondents who WTP higher 2.1% to 15% for accessibility to airports as far as 10-15 km from commercial property. 46% respondents also choose to pay higher 2.1% to 15% for accessibility to city center as far as 0-5 km and 40% respondents choose for distance from commercial property to highway as far as 5-10 km. This result almost same with research study by Hu et al. (2014). Finally. 52% respondents have WTP higher prices between 2.1% - 15%. It is indicating consumers response who do not have a commercial property has higher preferences WTP in commercial property.

## **5. Conclusion**

Based on this analysis and discussion above, it was concluded that factors of legal, economic, physical and environmental simultaneously have a significant influence investors willingness to pay in commercial property. This result will describe new phenomena about investor behavior in economic or financial factor. Furthermore, this research can be developed more complex for respondent from other income level in other city (such as Bali, Bandung, Medan, Semarang, Makassar, Manado, Balikpapan, Pekanbaru), because it will describe more about investor behavior in commercial property. The other focus research about WTP factor is social factors and WTP does not measure only in percentage for sensitivity factor but also property price. ROI indicator from investors view point who have received can be used as a measure to be sharpened.

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