The Influence of Investor's Characteristics on the Perception About the Selling Price of Luxury Apartments in Hanoi

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Abstract
This research was conducted to investigate the impact of investor's characteristics on the perception about the selling price of luxury apartments in Hanoi, Vietnam. Data were collected through a survey with 458 real estate employees from Hanoi. With this data, we have used descriptive statistics, Cronbach's Alpha to determine the level of impact of the independent variable on the dependent variable, i.e. the perception about the selling price of luxury apartments. The results showed that the determinant is the investor's characteristics which have positive relationships with the perception about the selling price of luxury apartments in Hanoi. Based on this finding, this paper gives several recommendations for improvement the perception about the selling price of luxury apartments in Hanoi.

Keywords: the perception about the selling price of luxury apartment, investor's characteristics, real estate

JEL codes: G12, G13, G14, L80, L85
DOI: 10.7176/EJBM/12-9-06
Publication date: March 31st 2020

1. Introduction
The real estate market is a part of a comprehensive system of market types. This market will develop to promote the socio-economic development of the country and improve the lives of people. Real estate market plays a role in reproducing elements for real estate investors; real estate market is a bridge between production and consumption, between building real estate and buying and selling real estate. The real estate market promotes the application of science and technology, technological innovation, enhances the quality of real estate goods, protects and improves the efficiency of the use of extremely valuable national land and natural resources. The real estate market is related to many industries and fields such as construction, banking, environment, etc so the expansion and development of the real estate market will contribute to strengthening the cooperation among industries.

Currently, the segment of mid-range and high-end apartments in the western market of Hanoi is a potential real estate segment and is quite popular because these real estate products are of good quality, low construction density and have diversified and practical utilities, especially the price is suitable with the products invested and developed by the prestige owner, landscape design and good living space.

In Hanoi, when the population is increasing, the land is also cramped, putting money into apartments with green landscape design, spacious and clean living space is the priority. Therefore, mid-end and high-end apartments with full of good utilities are always the top criteria that customers buying real estate choose. However, over the long term, the real estate market has fluctuated, lacking necessary data to analyze factors affecting real estate prices for the house and High-end Apartment Building (HAB) segment. Besides, in recent years, in the world in general and in Vietnam in particular, factors associated with the characteristics of real estate investors such as position and prestige in the market, capacity and experience, marketing and communication strategies, etc. increasingly have a strong influence on the price of luxurious apartments. Therefore, this study aims to identify, evaluate and measure the influence of investor's characteristics on the perception about the selling price of luxury apartments in Hanoi.

2. Literature Review
Kotler (2005) asserted that the buying process of customers was influenced by factors: culture, society, individuals and psychology. Hinterhuber (2008) argued that the five factors when implementing a value-based pricing strategy are: undervaluation, lower value communication than reality, no effective market segmentation, poor governance and lack of support from senior management. The study also outlines some measures to overcome these obstacles.

Research results of Nigel et al. (2010) showed that managers needed to have a more strategic view of prices and examine the possibility of price increases, especially in the post-crisis situation. Real estate value is usually calculated by economic value (eg: exchange value, or use value). Economic value (exchange value) was understood as the market value according to international valuation standards (Lorenz and Lutzkendorf, 2011).

Besides the research in the world, there have been studies on real estate valuation in Vietnam; real estate...
selling prices in general, luxurious apartments in particular; factors affecting the purchase behavior of luxury apartments by consumers; factors affecting house prices; Factors affecting the decision to choose to buy a luxurious apartment, etc. such as Bui (2013) affirmed that the real estate price estimated from the regression model still had a big difference compared to the market price, especially in the case of real estate with a large area. Nguyen (2014) conducted a survey of 283 customers intending to buy luxurious apartments in Ho Chi Minh City. The research results show that the two main factors affecting the decision to buy luxurious apartments are (i) the quality of construction and services, apartment management and (ii) the impact of supporting customer policies, including preferential policies for customers and financial support of banks.

Ha and Phung (2016) applied Hedonic model and quality position theory to identify factors affecting housing prices in District 6, Ho Chi Minh City. The results of the model show the suitability of the data collected with the research model. The results also show that factors such as: land area, house area, property location and road / alley width in front of the house have the same positive impact on house prices, in which the area of the house and the location has the strongest impact on house prices. The variable distance to the center of District 6 (Binh Tay Market) has a negative effect on house prices.

Nguyen & Mai (2019) used qualitative and quantitative methods to analyze, the authors used 32 questions corresponding to 32 observed variables, conducted a survey in Da Nang City in from October 2018 to December 2018. The actual sample size for analysis is 250 with the SPSS22 software supporting tool. The research results showed that 3 factors affecting buying behavior of consumers for high-class apartments Da Nang are the position of feng shui, function and design.

In the above studies, although there has not been any study showing the impact of investor's characteristics on the price of real estate in general and luxury apartments in particular, but there have been studies referring to the component attributes of investor's characteristics such as investor reputation, investor's strategy, investor's brand, etc. Inheriting the above studies, through interviews, this study analyzes and assesses the impact of the investor's characteristic factor on the perception about the selling price of luxury apartments in Hanoi.

3. Research Methodology

Inheriting the results of previous studies and by using a qualitative research approach namely interviews with selected experts to perform a quantitative research, we have identified the following the factor that determining the perception about the selling price of luxury apartments (PSLSA): Characteristics of the investor (CI). Then, we made a questionnaire consisting of 4 observation variables with a 5-point Likert scale. Independent variables are measured from 1 "without effect" to 5 "strongly" (see Table 1). The collection of data was done through a survey of 500 real estate employees, for the period 2018-2019, close to this study period. Therefore, their feedback on the perception about influence of investor's characteristics on the selling price of luxury apartments is considered very appropriate.

From 500 questionnaires we sent, we received the feedback of 472 respondents. After checking the information on the returned questionnaires, we have only 458 questionnaires with full information for data entry and analysis, the size of this sample is consistent with study of Hair et al (1998), namely n = 5 x m = 5 x 4 = 20. Therefore, the rest of observations for model 1 are 458. Most respondents have experiences. As can be seen, all participants are at high quality knowledge, and this makes surveys’ answer are reliable.

We then used the descriptive statistics, analysis of Cronbach’s Alpha to determine the influence of investor's characteristics on the perception about the selling price of luxury apartments in Hanoi.

Dependent variable: The perception about the selling price of luxury apartments
Independent variable: The independent variable are described in Table 1.

Table 1: Determinants and Its Coding

| Code | Scale                                      |
|------|-------------------------------------------|
| CI1  | Position and prestige                     |
| CI2  | Image and brand                           |
| CI3  | Capacity and experience                   |
| CI4  | Communication and marketing strategy      |

Research Model

From the above analysis, we have designed a research model as shown in Figure 1.
Hypothesis

H1: Characteristics of the investor has a positive influence on the perception about the selling price of luxury apartments in Hanoi.

4. Research results
4.1. Descriptive Statistics

Table 2: Respondents by gender, Seniority work

| Gender      | Frequency | Percent | Cumulative Percent |
|-------------|-----------|---------|--------------------|
| Male        | 279       | 61.0    | 61.0               |
| Female      | 179       | 39.0    | 100.0              |

| Seniority work | Frequency | Percent | Cumulative Percent |
|----------------|-----------|---------|--------------------|
| Less than 2 year | 127       | 27.7    | 27.7               |
| Over 3 years    | 94        | 20.5    | 48.2               |
| From 2 to 3 years | 237       | 51.8    | 100.0              |

Total 458 100.0

Information of data collected is shown in Table 2. It shows that among the 458 respondents, about 61.0% were male while the remaining 179 (39.0%) were female. Of these, 127 of them (or 27.7%) have seniority work less 2 years, 237 of them (or 51.8%) have seniority work from 2 to 3 years and 20.5% of the participants have seniority work more 3 years.

Evaluating the influence of characteristics of the investor on the perception about the selling price of luxury apartments in Hanoi. The majority of respondents think that these attributes have a strong - very strong influence.

Table 3: Descriptive Analysis of Attributes of investor's characteristics

| Scale                        | Description | Mean |
|------------------------------|-------------|------|
| Position and prestige        | 3           | 4.500|
| Image and brand              | 3           | 4.4585|
| Capacity and experience      | 3           | 4.3996|
| Communication and marketing strategy | 3         | 4.3450|

Data in Table 3 illustrate that the respondents evaluate with the independent variable of “Characteristics of the investor (CI)” where four (4) attributes were quite high with an average of 4.4258 compared with the highest of the Likert 5-point scale. All 4 attributes were rated at an average of 4.3450 or higher.

4.2. Cronbach’s Alpha

Characteristics of the investor have been measured by the Cronbach’s Alpha. Results of testing Cronbach’s alpha of attributes are presented in Table 4 as follows,

Table 4: Results of Cronbach’s Alpha Testing of Attribute

| Characteristics of the investor (CI): Cronbach's Alpha: .690 |
|---------------------------------------------------------------|
| Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item- Total Correlation | Cronbach's Alpha if Item Deleted |
| C11 13.2031          | 1.929                         | 4.58                             | .635                           |
| C12 13.2445          | 2.019                         | 4.78                             | .622                           |
| C13 13.3035          | 1.897                         | 5.21                             | .604                           |
| C14 13.3581          | 1.968                         | 4.37                             | .649                           |

The results also show that attributes of the independent variables have Cronbach's Alpha coefficients that are greater than 0.6, and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the dependent variables are statistically significant (Hair et al., 2009; Hoang and Chu, 2008).

In addition, the research results indicate the correlation coefficient of the investor's characteristics with the dependent variable > 0, reflect a positive relationship, sig < 0.05; it means that all variables are interrelated, were statistically significant.

Beside, based on the research model of factors influencing the perception about the selling price of luxury apartments with 6 independent variables and 1 dependent variable, the results showed that: Characteristics of the investor (CI) affect the perception about the selling price of luxury apartments with a coefficient of β2 = 0.165. Thus, characteristics of the investor have a positive relationship with the perception about the selling price of luxury apartments. Research hypotheose is accepted.

5. Discussion and administrative implications

In addition to the attributes presented in the research results, the investor's characteristics also affect the perception
of luxurious apartment price through quality, progress and commitment of the investor. 

**Characteristics of the investor through conducting sociological survey research**

Conducting sociological survey research is the first step in collecting very important sociological information as a basis for project investment research, but it is rarely paid by investors who buy information and usually by investors themselves. Many investors do not have the awareness and habits about the importance of purchasing project related information to serve the first phase of pre-feasibility study (PS). Therefore, the quality of survey information is often subjective, little, weak, inaccurate, so there are many consequences when the investor decides that the supply of goods is too large compared to the demand, deviation of product segment and customers' demand, prices are too high or too low, policy changes, etc. Therefore, the solutions should be implemented as follows:

(i) Real estate developers in general and high-end apartment segment in particular need to have sufficient data of many fields through a thorough and serious market research such as: population, educational level, industry, working age, buying and selling behavior, customers' psychology, current status of accommodation, desire and affordability, living space, common-private area; living environment, location, prices and after-sales, supply and timing of sales from other developers, housing segments, purchase prices, technical infrastructure, general planning regulations and detailed plan of the project area. Investors should not ignore or disregard or be subjective in order to complete legal procedures in accordance with the state regulations on appraisal and approval of the project.

(ii) It is necessary for the investor to hire a professional unit of market research and sociology to study the Pre-feasibility Study (PS) project in a truthful and objective manner. From the results of sociological and market research, it will help investors decide the investment scale of real estate segments, apartment structure, scale, number of floors, number of apartments, selling price of each apartment, accordingly, ensuring that customers with real accommodation needs can buy it, avoiding unsold goods that will not cause damage to investors.

Many investors have not studied the data on the population and the segment of customers interested in the project, so many luxurious projects are currently in inventory due to the supply-demand deviation, few customers who are interested. There are many similar supplies of HAB segment opening for sale at the same time when in the market, the number of customers buying for staying is not much, the price is too high compared to the income of the targeted customer group, etc. leading to the amount of goods that are large inventories, losses to investors and the loss of the opportunity to sell the first-time buyers. Therefore:

Investors need to buy data and information on the sociological survey of the regional research unit intending to invest in the project. The project consultant should include information on the number of population, household, single status, number of employees, number of retirees, retirement preparation, number of primary school students, secondary and high school, the number of university students; number of officials, number of freelance traders, number of large, medium and small businesses, number and size of public play areas and entertainment venues; number of people's markets, schools, hospitals, shopping centers; number of facilities producing trades. Area of commercial land/ agriculture/ forestry; number of pagodas, communal houses, churches; number of motorbike and bicycle shops and shops; a number of large beverage shops serving music, a number of seafood restaurants, and a number of Karaoke bars; the number of real estate projects in each segment, the number of floors and real estate brokers, the number of building material stores, the number of public buses and car routes, infrastructure (how long drainage takes after a prolonged heavy rain, regional water supplies, communication systems, telecommunications, electricity supply, electricity consumption, etc); Average width of sidewalk, quality of tiles, trees, lighting, large advertising signs; Annual rainfall, dry season, climate characteristics, etc; The average income of the potential customer segment; housing status of the prospect group; The size and number of specialists in social management and public works, regional plan and detailed plan of the project area with a vision of decades later, etc. Full information is needed on current and future competitors; there is a number of supplies of real estate segments in the same segment and different segments, and the sales time of the investors in the same area, price and after-sales mechanism ... so that the investors have enough reliable information before deciding regulations on investment scale, investment segment, product structure, number of products, interest rates, number of payments, selling prices and after-sales mechanism for more attractive customers interested in buying luxurious buildings.

The investors should notify the tenderer of the units providing information on sociological investigation of the project area; the investor establishes a project management board or hires project management unit to work with units specialized in this sociological investigation; Screening to select a reputable and reliable unit to sign a contract to buy data for feasible project preparation. By this way, the number of apartments and commercial products will quickly be sold to the right target group that has been thoroughly researched right before starting the project.

**Apply modern technology to construction and installation of buildings, HAB**

Currently, not many investors are interested in investing in modern technology to execute and install buildings, HAB, so many harmful consequences have happened to humans such as: slow fire alarm, slow fire, explosion, electric shock and gas explosion, jamming and dropping of an elevator, pressure differential chamber being
disabled when a fire occurs; unable to rescue children and women when being threatened with abuse in elevators, basements, stairwells; consuming a lot of electricity; the alarm being not correct, etc.

Therefore, investors need to have a foresight to decide to prioritize the investment budget of smart smart devices, green home installed in association with apartments and buildings of high-quality technology such as: Solar energy batteries, switching on and off air conditioner, television, doors, garage, curtains, water heater; monitoring security cameras, facial recognition cameras, voices, cameras installed in elevators' chambers, stairs, basements; technological equipment controlling electricity and water monitoring systems; activating automatic fire alarm system; remote control device; activating and conveniently using quick rescue tools by high-tech equipment; automatically activating the alarm and automatic fire fighting when a fire occurs, etc. It will bring peace of mind, satisfaction and comfort for people when making decisions to buy luxury apartments.

Investors should choose a general contractor with a lot of experience in construction using advanced technologies of the world such as: Top Base solution of Japan-Korea (no need to build or press reinforced concrete piles); Topdown construction method, no-beam C-Deck floor (saving cement, sand, stone, reinforced steel, labor and construction time), etc. then reducing waste to protect the environment, reducing consumption Electrical Power; good sound insulation and insulation, contributing to speeding up the completion of the project and fast sales which reduces construction costs and price of HAB.

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