The perception about the selling price of luxury apartments: The case of Hanoi, Vietnam

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Abstracts: This study was presented to identify, evaluate and measure the attributes of the perception about the selling price of luxury apartments in Hanoi. Based on literature review and the results of some interviews, 500 questionnaires were sent directly to employees and real estate experts working for real estate managing or trading organizations and were collected in 2 month. However, only 458 questionnaires were satisfactory and included in the analysis. The results of descriptive statistics, Cronbach's Alpha analysis have identified and measured 3 attributes of the perception about the selling price of luxury apartments in Hanoi. Based on the findings, some recommendations are given to improve the perception about the selling price of luxury apartments in Hanoi.

I.   Introduction

Price is considered as one of solutions to help businesses recover capital quickly and not to depend on bank loans. In addition, price is one of methods creating revenue effectively or protecting market share for businesses, which shows that the strategic role of the price is very important for a long-term strategy.

Social development speed amid changes in population growth and land shortage in the same region has shown an inevitable trend of modern urban development in the world with high buidings to save land resources and to create a green, clean and sustainable urban area.

In the past decade, with the tendency of international integration, standards of living and people's income have been increasingly improved, which leads to an explosion in the number and size of apartments in central cities and other new urban areas. Buildings are logically planned and designed with beautiful outside environment, synchronized with technical infrastructure and integrated with many public utilities and most importantly, these high buildings are connected to transportation systems.

Condominium products are the crystallization of technical elements, building architecture and service - management quality of each apartment building. The independence and distinctness of ownership are perfectly connected within the building common space. Utility works in the structure of apartment buildings have created distinct values for these apartment buildings. Therefore, condominiums are closely associated with the life of urban communities and becoming a popular demand of consumers. Apartments and high buildings are increasingly built and become people's preference.

The trend of creating different housing project segments in Hanoi real estate market has fundamentally changed the selling method and selling price. Some drawbacks of the real estate market over the past few years are demand beyond supply, lack of transparent information, lack of policy direction and ineffective market stabilization from the government in housing management. The long-running virtual land fever made all housing

and land segments liquidated quickly. People buying apartments for living purpose do not have many choices in price, position, constructional quality and legal aspects.

The trend of increasing selling prices for the mid-end apartment segment and decreasing prices for the high-end apartment segment is becoming evident. The spontaneous market due to the lack of control from the State management agencies leads to the fact that inventory is mainly of high-class apartment segment across the country in general and in Hanoi in particular, causing losses for investors and confusion for high-income people who want to improve their living environment. The State also lose tax revenue and social security is unstable, etc.

From the above reasons, the perception about the selling price of luxury apartments is a scientific and necessary research.

II. Literature Review

Real estate is often considered a special product, traded in packages and valuable thanks to useful properties (Rosen, 1974). Therefore, households value the characteristics of a product, not the product itself. Because real estate is fixed in space, households consider many factors of products and services when choosing a good (Sheppard & Cheshire, 1995).

According to Griliches (1971), Hedonic method is based on: the price of a heterogeneous good can be determined through properties related to that good. Therefore, Hedonic regression function is: $pi = h (ci)$, where "pi" is the price of the goods and "ci" is the vector of properties related to the goods. Triplett (1986) argues that Hedonic valuation method had been developed and applied extensively in determining price indices before it was built into a complete framework. Lancaster (1996) has built the theoretical foundation for the Hedonic model: consumer satisfaction comes from the characteristics of a product, not directly from that product.

According to the research application of Hedonic model in the housing market of Thibodeau (1995), Hedonic valuation method is a regression model of the value or renting price of apartments based on properties related to apartments. In particular, each independent variable represents an individual feature and coefficients in the model results are implicit prices of these characteristics. Regression model of price for rent or value of an apartment is as follows: $R = f (S, N, L, C, T)$, where: R is the rent price or value of the apartment; S are structural characteristics; N is the surrounding environment characteristics; L is the position; C is the feature of the transaction contract and T is the term of the apartment to be observed. According to Malpezzi (2003), in the development process, the housing market is one of broad applications of Hedonic valuation model, since housing is a heterogeneous commodity. At the same time, consumers' needs are not homogeneous either. Indeed, an apartment consists of many unique characteristics in terms of area, quality, location, etc. Each house has a certain location with different construction time and different area. Besides, the degree of utility and apartment pricing of different buyers are also dissimilar. The valuation therefore becomes difficult. Since then, Hedonic method is commonly used because it can estimate the value of individual characteristics that make up the overall value of the entire apartment.

In the field of real estate business in general, luxury apartment business in particular, the research in Vietnam mainly focused on topics such as: (i) creating business strategies of real estate companies (Nguyen, 2008; Tran, 2009); (ii) improving the competitiveness of real estate companies (Dinh, 2011; Pham, 2012); (iii) tax policies for the real estate market in Vietnam (Duong &Nguyen, 2013); (iv) land valuation (Nguyen and Nguyen, 2013).

Inheriting results of previous works, this study continues to analyze, evaluate and measure the perception about the selling price of luxury apartments in Hanoi with the subjects of our survey are employees and real estate experts working for real estate managing or trading organizations. The authors use both research methods: qualitative and quantitative methods. The authors use SPSS23 software with descriptive statistics and analysis Cronbach's Alpha scale to evaluate and measure the price perception of luxury apartments in Hanoi.

III. Research Methodology

We used a qualitative research methodology based on some in-depth interviews with 5 lecturers with extensive experiences in real estate of the National Economics University, Hanoi University of Natural Resources and Environment &Vietnam National university of Agriculture. At the same time, we interviewed 5 experts working as investors and real estate business sectors, service companies and real estate exchanges. The results of

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the interviews include the perception about the selling price of luxury apartments. Based on the prior studies and results of qualitative research through expert interviews, we have conducted inductive method to verify, adjust and add attributes in questionnaires for collecting final data of the research.

Inheriting the results conducted by Bowles et al. (2011),Nagle et al. (2014),Sichtmann et al. (2011), etc,we identify the perception about the selling price of luxury apartments (PSPLA) including three attributes as follows:

Code	Scale	Sources
PSPLA 1	Selling prices of real estate and costs	Bowles et al. (2001)
PSPLA 2	Price and competitiveness	Nagle et al.(2014)
PSPLA 3	Price and purchasing power of customers	Sichtmann et al. (2011)

Then, we have designed a questionnaire consisting of 3 variables with a 5-point Likert scale from 1 "not totally agree" to 5 "fully agree". The method of data collection was accomplished through the survey and subjects were employees and real estate experts working for real estate managing or trading organizations in Hanoi. We sent 500 questionnaires and received the feedback of 472. After checking the information on the votes, there were 458 questionnaires with full information for data entry and analysis, the size of this sample was consistent with study of Gorsuch (1983). We used both qualitative and quantitative approaches for analysis data. SPSS is a tool to support us to have descriptive statistics, Cronbach's Alpha were used for evaluating and measuring the perception about the selling price of luxury apartments in Hanoi.

IV. Results and Discussion

IV.1. Descriptive Statistics

Table 1: Respondents by Gender, Income

	Frequency	Percent	Cumulative Percent
Gender			
Male	279	61.0	61.0
Female	179	39	100
Income			
Less 5 million VND	89	19.4	19.4
From 5 to under 10 million VND	205	44.8	64.2
From 10 to under 20 million VND	117	25.5	89.7
More 20 million VND	47	10.3	100
Total	**458**	**100.0**	

Information of data collected is shown in Table 1. It shows that among the 458 respondents, about 61.0% were male while the remaining 179 (39.0%) were female. Of these, 89 of them (or 19.4%) have income less 5 million VND/month, 205 of them (or 44.8%) have income from 5 to under 10 million VND/month, 117 of them (or 25.5%) have income from 10 to under 20 million VND/month and 10.3% of the participants have income more 20 million VND/month.

Table2: Descriptive Analysis of Attributes of the perception about the selling price of luxury apartments

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
GBCHCC1	458	1.0	5.0	3.9574	.35929
GBCHCC2	458	2.0	5.0	3.4597	.56543
GBCHCC3	458	1.0	5.0	3.8052	.49290
Valid N (listwise)	**458**			**3.7407**	

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Table 2 indicates that the respondents agree with the dependent variables of "the perception about the selling price of luxury apartments (PSPLA)", where three (3) attributes were quite high with an average of 3.7407 compared with the highest of the Likert 5-point scale. All these three (3) attributes were rated at an average of 3.4597 or higher.

IV.2. Cronbach's Alpha

Table3: Results of Cronbach's Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The perception about the selling price of luxury apartments (PSPLA): Cronbach's Alpha .901				
PS1	7.2650	1.003	.835	.878
PS2	7.7626	.653	.832	.861
PS3	7.4171	.769	.835	.833

The perception about the selling price of luxury apartments (PSPLA) has been measured by the Cronbach's Alpha. Results of testing Cronbach's alpha of attributes are presented in Table 3 below. The results also show that attributes of the dependent 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 etl al., 2009; Hoang and Chu, 2008).

IV.3. Discussion

First grade condominium or high-class condominium is extremely high quality, ensures requirements on planning and architecture; technical and social infrastructures, completeness quality, equipment and conditions for providing management services of high standards are great to be put into operation (Ministry of Construction, 2008).

A high-class flat is a closed floor plan of a high-class apartment, with all high quality and modern utilities and synchronous equipment, ensuring comfort and safety for people. Luxury apartments usually have a minimum floor area of 90m2.

In Vietnam, high-end apartments are usually less than 3.0 km away from urban centers and convenient for transportation. Closed floor plans, which are privately owned, have a certificate of use rights (pink book or red book) with full functions for households to live permanently, with an area of over 60m2. Technical design drawings must have the participation of at least 01 architect who is a foreigner, the planning and design quality is at least up to the aesthetic and luxurious standard as a 4-star hotel. There are full facilities inside and around the accommodation. Technical infrastructure must ensure that it can serve the population for a vision of over 30 years. Equipment, materials and finishing materials are durable and beautiful. Construction density is below 45%. Each elevator serves less than 40 households. Each household has a parking space for cars and motorbikes with state-approved fees. The quality of sound, light, ventilation, landscape architecture and service quality of the building are equivalent to 4-star hotel. Corridors are from over 2.0m width with air conditioning, lights, secondary corridors and escape ladders. Fire protection system ensures automatic fire extinguishing for high buildings. The selling price is usually from VND 33 million/m².

The increasing population leads to higher demand for housing of middle class; therefore, the demand and financial ability of high-end apartment segments have not improved the liquidity. Survey data from the Hanoi Real Estate Club in 2010 showed that the demand for affordable housing is increasing sharply, while the luxury apartment segment is still in a quiet phase with few transactions. In the segment of luxury and high-end apartments, target customers are those who are high - status, high income, successful businessmen, overseas Vietnamese and foreigners doing business in Vietnam; families outside the city with financial potential also tend to buy residential houses and luxury apartments for their children who are students at universities. The middle-class households after years of financial accumulating are also a source of target customers who can upgrade the quality of accommodation from affordable apartments to luxury apartments. When families have enough financial resources, they want to own houses in urban areas to move and settle permanently in as a trend of

prosperity. Many households of multi-generational families, now separated into different cities as the city re-plans new urban projects, also account for the large number of luxury apartments in many projects. The policy of attracting talents of the State has also brought many people to Hanoi, which also increased the demand for quality accommodation such as luxury apartments. The biggest demand for high-end condominiums and affordable apartments in Hanoi and Ho Chi Minh City is of employees working for the State. This customer segment's pride is housing assets that are owned by the central full-service projects.

Real estate price in Hanoi market tend to increase and the amplitude of fluctuations is not large: The statistics show that real estate price in Hanoi market is strongly affected by supply-demand relationship. However, the supply power in the market seems to be stronger than the demand. Moreover, real estate prices in Hanoi are currently considered too high. In addition, the rapid development of real estate projects has made the supply start to be inordinate. The decline in growth has also caused a fall in demand.

Real estate price in Hanoi market also changes periodically and is influenced by the government's policy: After the strong increase in period 2007-2008, it is possible to see that the market has entered the freezing phase in 3 years with very large inventory value (2011-2013). In 2014-2015, the real estate market showed signs of recovery. The ups and downs of the real estate market in recent years have been associated with the fluctuations of the economy and state policies. Although sometimes speculative waves created by speculators, it is not strong enough and not escape that general rule. Therefore, considering macroeconomic and policy factors in the coming time is the best way to predict the trend of the real estate market.

Unpredictable movements of the real estate market compel investors and real estate business sectors, service companies and real estate exchanges to improve their ability to capture market signals through the liquidity of housing products. On the other hand, competition among developers and pressure from buyer force investors to seek competitive advantage. In the new stage of real estate market development, price is always an effective competitive tool. The necessity to study the factors that make up prices in the real estate market is becoming increasingly clear to investors.

Through the field observation process and experts' opinion, it can be seen that the actual price of luxury apartments is still high compared to the actual income of affordable customers in the market. Perceptions about the selling price of luxury apartments are related to the quality of luxury apartment products, customer psychology and supply - demand relationship in the market.

Forecast of supply and demand of luxury apartments in Hanoi in the period of 2020-2022 is as follows,

Apartment	Demand Forecast	Supply Forecast
Luxurious and super luxurious segment (60-100 mil/m² or over)	Average	Quite high
High - end (40-60 mil/m²)	Quite high	High
Inter high - end (30-40 mil/m²)	High	Very high
Middle segment (20-30 mil/m²)	Very high	High
Affordable segment (around 20 mil/m²)	Very high	Average

V. Recommendations

Price and quality of products

The selling price of a luxury apartment of the investor must be commensurate with the quality of that apartment and building service according to the market mechanism, reflecting the standard of a luxury apartment. High – end apartment sale price reduction is one of the necessary measures: (i) Approval plan of total investment and financial plan appraised (appraised) by departments as the basis so that the Department of Construction will grant a construction permit to the public at the project and at the headquarters of the People's Committee of the project area; (ii) The selling price of the investor for the first time will comply with the price list

plus the coefficient as the financial plan was announced publicly; (iii) Avoiding the fact that customers are blinded in price and brokers either raise prices or investors raise unreasonable prices.

Price and customer psychology

Determining the price of luxury apartment must take into account the psychosocial factors of the customer. Social psychology greatly affects customer confidence and psychology when deciding to do something related to spending a large amount of money. People are often influenced by public opinion and rumors often have the power to imply a positive or negative ambiguity in making decisions about what to do, especially when buying or selling goods of great value like real estate. The trend of fashion consumption of luxurious and unique products of wealthy people is easy to create a trend of response or boycott by the influence of crowd psychology or herd mentality phenomenon. Spiritual or fengshui factors also affect real estate prices; solidarity or internal conflict also affects real estate prices; influence of the fluctuation of real estate market, stock market, gold market or exchange rate also affects the psychology of consumer behavior of customers; feelings of customers (love or hate, trust or suspicion) towards real estate brokers, real estate floors also affect real estate prices.

The head of the investor needs to control the psychological evolution of the human resource system in the enterprise, must train and guide each individual within the personnel system to understand their mission and the humanities purpose of the investment. Investors also need to manage the trust for each person towards the final output of the investment chain, which is beautiful real estate products - convenient and affordable, contributing to the benefits of customers and projects bring harmony benefits to buyers, businesses and local governments and the regional community.

Investor is the subject of forming ideas and creating real estate development. Therefore, the Board of Directors of the investor always shows their persistence with the mission and vision of the business, respecting the development plan of real estate investment and business following the trend of Cheap - Green - Clean - Nice - Safe. The whole system is not deviated from the goals and plans set out, not tilted psychologically when there are a number of intangible impacts from the weakness and objective factors outside society. The positive rumor of the psychosocial phenomenon about the project and investor is the result of good investment efficiency and keeping promises to customers as contractual commitments.

Price and supply-demand relationship in the market

In a market economy, the law of supply and demand objectively governs market prices. Therefore, the price of luxury apartments must reflect the supply-demand relationship in the market.

The research results also showed that supply and demand for luxury apartments is more beneficial for buyers. Therefore, the downward trend in the average price of luxury apartments is common. Moreover, it is difficult for customers to distinguish between middle and high-end apartments; therefore, the price range is quite wide, the price can range from 25-55 million/ m2.

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