DETERMINING FACTORS INFLUENCING THE PRICE OF HOUSING FOR FIRST TIME HOME BUYER IN INDONESIA

Dame Sola Gratia[1*]
Ahmad Danu Prasetyo[1]

[1] School of Business and Management, Bandung Institute of Technology (ITB), Indonesia
* Corresponding Author: dame-solagratia@sbm-itb.ac.id

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Abstract: This paper is a part of an ongoing thesis research that tries to analyze the relationship between housing prices, first time home buyer preferences, and external factors arising that influence the price. The approach used is by analyzing, making synthesis, and giving a critical analysis from twenty papers related to housing preferences. The objective of this research is to find the buyer preferences factors that influencing price for first time home buyer. This paper revealed that economic conditions, payment methods, quality, location, physical attributes, facilities, design and aesthetic aspects are the factors that influencing the price of housing for first time home buyer. The scope of this research is limited to the analysis of factors influencing price on first time home buyer in Indonesia including Jabodetabek, Bandung, Surabaya, Denpasar, Medan, Pekanbaru, Balikpapan, and Makassar as representative of big cities in Indonesia. The findings of this study would be useful in making strategies or policies for housing in Indonesia

Keywords: price, first time home buyer, housing, preferences
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Introduction

Property refers to land, buildings, the attached facilities and the infrastructure surrounding. The building refers to houses, apartments, malls, shops or office building. (Diamond, 2009) Increasing demand in property stimulated by the people who need housing (Mardanugraha & Mangunsong, 2005). All due to high population growth, especially in Indonesia for example in Jakarta, Bogor, Tangerang (around Jakarta) are predicted increasing from 269 million to 319 million in 2020 to 2045 (Media Indonesia, 2020). About 90% of the population will be living in the area around Jakarta since land prices in the big city to be expensive. These factors make housing on the big cities in Indonesia is more important as basic facility rather than to be an investment. As a shelter, housing must be accommodating with a comfort and harmonious place to a family. However, it isn't an easy thing to choose a house because it does involve a big commitment. Other than that, housing also involves the highest cost in expenditure (Assaf, Bubshaitr, & Al-Muwasheer, 2010). Therefore, home buyers need to put a lot of concern into their choice, especially for the first-time home buyer as they did not have any experience in buying a house before.

According to World Bank report on Indonesia's urbanization, the house price to income ratio in several big city in Indonesia including Bandung, Denpasar, and Jakarta are higher than New York, London, Singapore, Tokyo and Kuala Lumpur (Roberts, Sander, Tiwari, & Editors, 2019). The limited number of land and the price is already high, resulting the price of property in the big cities also increasing. Many employees who work in the big cities live in the suburb area because they simply could not afford to buy a house inside the city due to the high price of property. The low to middle-income consumer also find it difficult to apply the mortgage loan since the bank would require them to pay a big amount of down payment in the beginning. Due to this condition, many big cities turn very crowded in the workdays and having traffic all across the city.

First time home buyer is defined by age between 24 to 34 years old (Duffy & A, 2005), which dominating the number of workforces nowadays, are the most affected segment by this condition. Indonesia has the number of young adults with more than 50% from the total of labor force. In additions on spending of food and clothing, they need investing house for assuring their future. Unfortunately, houses ownership remains obscure for various individuals, even for owning a modest house; this is even more pronounced for the buyers, who born during 1980-1994 (Mardanugraha & Mangunsong, 2005). First time home buyer risk of dwindling to own a house in the next five years. This prediction was supported by other analysis asserting that the ability to pay the instalment for buying a house or other spending is at the maximum of 30% out of the total income (Mardanugraha & Mangunsong, 2005). The assumption is described in the calculation that the first-time home buyer represents those who from a professional that just started their first job. Most of them also were unstable in term of financial resource (Khan, Amalina, & Juhari, 2017) their ability to pay mortgage will be around IDR 2 million. This figure is still affordable according to the mortgage for KPR (House ownership credits) of IDR 250 million, with the monthly mortgage of IDR 2 million paid within duration of 15 years; however, these figures will be impossible for the years after. (Deloitte, 2020) This background brought the author to conduct a study to determining factors that influencing the price of housing for first-time home buyer in Indonesia. As the land is limited and the price also getting higher there's a difficulty to generate cashflow and determine an opening price. With a limited budget, first time home buyer needs to consider the available option that match with their needs.

The objective of this paper is to analyze the relationship between housing prices, first time home buyer preferences, and external factors arising that influence the price. The approach used is by analyzing twenty studies and at the end of the paper, a conceptual framework was developed. The findings of this study will eventually enrich the database for real estate developers, buyers, and stakeholders as there are limited studies on first time home buyer in Indonesia.

Literature Review

There are seven major point will be discussed and explanation is provided for the study. The points will review twenty articles discussing the economic condition, payment methods, quality, location, physical attributes, facilities, design and aesthetic as factors that influencing the price of housing for first time home buyer. A conceptual framework will be provided to mapping every factor position in this study.

Table 1: Summary of Related Previous Researches

No	Author	Objective	Variables	Conclusion
1	Delgado, A., & Troyer, F. D. (2017)	The purpose of this study is to describe the principles of a conceptual model to help developers and housing users achieve their expectations by incorporating additional values as housing preferences.	1) design 2) cost 3) market price 4) project investment 5) affordability	The findings revealed that the higher price people are willing to pay for housing characteristic can be expressed as a value that could be added to the project, housing users will select those housing characteristics that will provide the maximum quality (value) for a minimum of cost.
2	Mulyano, Y., Rahadi, R. A., & Amaliah, U. (2020)	The purpose of this study is to determine the housing preferences among Millennials in Jakarta.	1) location 2) accessibility 3) price 4) physical attributes 5) facilities 6) design and aesthetic aspects 7) developer reputation 8) land ownership	The findings emphasis eight indicators for millennials consumers have to consider before buying a house with location as the most influential factor to be asked to the real estate developers because millennials would like to have a property in a strategic location that would increase the value of their house.
3	Leh, O.L.H., Mansor, N. A., & Musthafa, S. N. A. M. (2016)	The purpose of this study is to determine the young generation's preferences on housing in Subang Jaya.	1) location 2) types 3) size (no. of bedroom) 4) pricing 5) housing facilities 6) ownership	The findings revealed that most young Malaysian urbanites preferred landed housing. They strongly preferred to purchase their future house that truly meets their housing preferences. In terms of location, these young people preferred to live in urban area so as to be close to their workplace and services. They targeted high priced houses despite their affordability issues.

4	Abdullah, L., & Mohd, I. B. (2012)	The purpose of this study is to identify the first-time home buyer preferences that influencing decision making in Bandar Seri Iskandar.	1) location 2) financial 3) neighborhood 4) interior 5) developer 6) exterior 7) family life-cycle	The findings emphasis that decision to purchase a house for first-time buyer influences by the financial factor rather than other factors. In this study, it needs to be outline in the context of Malaysia housing market trends which the rapid growth in housing price slowly eradicated the affordability of house purchase. For first-time buyers, these changes in housing market are reflecting to their decision to purchase.
5	Rahadi, R. A., Wiryono, S. K., Koesrindartoto, D. P., & Syamwil, I. B. (2015)	The purpose of this study is to determining the different preferences between property practitioners and residential consumers on housing prices in the Jakarta Metropolitan area.	1) location accessibility 2) physical qualities 3) livability 4) concept 5) financial condition 6) brand 7) location uniqueness	Housing consumer and property practitioners have different preferences on the categories important for housing price. Housing consumers have a more straightforward assumption about the categories influencing price. Location near-religious center, activity center, shopping center, education have the highest mean score. The next essential attributes are ease of accessibility and direct toll road access. The last attributes are the green concept and a sound security system.
6	Greene, M., & Ortuzar, J. (2002)	The purpose of this study is to identify the most relevant housing attributes; and, a stated preference survey to a sample of five types of social housing dwellers.	1) price 2) materiality 3) size 4) location 5) typology-sanitation 6) pavement 7) urban facilities	The findings revealed that building material and type of dwelling appear as the strongest variables for all types of dwellers. In general, location appears to be the least important attribute; price (monthly mortgage) and

				size did not appear in general as important attributes.
7	Moghimi, V., & Jusan, M. B. M. (2015)	The purpose of this paper is to unveil how Johor Bahru resident's conceptions are affected by various structural housing attributes.	1) housing interior atmosphere 2) housing exterior 3) floor lay-out 4) interior 5) technical system	The findings revealed the priority lists of preferences for structural housing attributes with technical system as the leading factor, followed by floor lay-out and interior of the home that had the same weight.
8	Rahadi, R. A., Wiryono, S. K., Koesrindartoto, D. P., & Syamwil, I. B. (2013)	The purpose of this study is to analyze the relationship between housing prices, real estate buyers' preferences, real estate developers' assumption of price, and the other external factors that influence the price.	1) design 2) brand 3) facilities 4) reputation 5) reinvestment value 6) pricing policy 7) speculative behavior	The findings emphasis that the most influencing attributes that affecting price from customer point of view is design. Customers reflected most of the attributes influencing the price. Therefore, real estate developer should pay more attention towards what the customer prefers in order to optimize price of housing product.
9	Pasha, H. A., & Butt, M. S. (1996)	This paper tried to analyze the characteristics of demand for housing attributes of quantity and quality of low-income developing country like Pakistan.	1) lot size 2) living space 3) room 4) bathroom 5) housing quality	The findings revealed that income elasticities of demand for housing attributes are relatively low in Pakistan. Secondly, price elasticities appear higher in Pakistan especially for plot size, living space, and number of bathrooms.
10	Wilhelmsson, M. (2002)	The purpose of this study is to demonstrate a new approach to how income and own-price elasticities for housing attributes can be estimated.	1) living area 2) quality 3) quietness 4) lot size 5) property price index	The study show that family play a significant role that estimating the elasticities. Furthermore, the housing attributes of living area and absence of traffic noise are more income elastic than those of lot size and indoor quality.

11	Opoku, R. A., & Abdul-Muhmin, A. G. (2010)	This study examines the housing preferences of low-income consumers in Saudi Arabia.	1) interior layout 2) private living space 3) building design 4) aesthetics 5) outdoor space 6) financial 7) local environment 8) proximity to relatives 9) street location 10) air quality	The findings emphasis that all the ten factors extracted from the principal components analysis were important to the low-income respondents. The 3 most important factors are the financial, private living space, and aesthetics. Whilst proximity to relatives, outdoor space, and the street location were the 3 least important factors.
12	Thanaraju, P., Khan, P. A. M., Juhari, N. H., Sivanathan, S., & Khair, N. M. (2019)	The purpose of this study is to determining the important factors that have a significant impact upon the decision making of the house purchasing process.	1) financial 2) location 3) neighborhood 4) developer's reputation 5) interior design and space 6) family life cycle 7) exterior design	The result revealed that all of the factors have a significant relationship with the preferences and the decision-making process of purchasing a house. Location is the most significant factors in the housing purchase consideration. It means homebuyers will consider the locational factors to ensure that they are investing in a suitable location.
13	Jun, H. J., Kim, J. H., Rhee, D. Y., & Chang, S. W. (2020)	The study examines atypical and nonlinear housing preference of individuals.	1) time to metro 2) accessibility to market 3) number of schools 4) housing price 5) housing area 6) number of rooms 7) number of bathrooms 8) distance to park 9) investment value	The result revealed the average value corresponding to the attributes that have been divided into 4 categories: top 50, top 25, top 10, and top 5. The result also revealed that time to metro more preferable rather than accessibility to market, with number of schools as a relatively low weight factor in respondent preferences.

14	Fierro, K. P., Fullerton, T. M., & Donjuan-Callejo, K. E. (2009)	The purpose of this study is to valuates the housing attributes in Ciudad Juarez, a major metropolitan economy in northern Mexico.	1) lot size 2) floor area 3) bedrooms 4) bathrooms 5) parking space 6) total of floors 7) walls 8) cement floors 9) gated neighborhood 10) guard post 11) green areas 12) school location 13) commercial area location 14) access	The result revealed the variables that playing an important role for single-family housing prices are the number of bathrooms, lot size, and floor area. This finding also means that structural characteristics are more influential in housing valuation than locational elements.
15	Hofman, E., Halman, J. I., & Ion, R. A. (2006)	The study examines how potential buyers of new houses priorities the different elements. This study also examines the trade-off relationship between the value customers place on variety and the maximum price that can be asked for a customized housing proposition.	1) technical systems 2) interior finish 3) floor plan 4) house volume and exterior 5) environment	The findings emphasis the most important dimension of housing attributes is interior finish, followed by house volume and exterior, floor plan, technical system, and environment as the least important dimension of customer housing preferences.
16	Ghumare, P. N., Chauhan, K. A., & Yadav, S. K. M. (2019)	The purpose of this paper is to determine a housing parameter that influencing decision-making process for low and middle-income groups customers.	1) viable parameters 2) regulatory 3) economic parameters 4) location and communication 5) source of finance 6) construction parameters 7) services 8) infrastructure parameters	The findings revealed that respondents living in urban cities of India gave statistically higher ranking to the viable parameters compared to the others. This would be because an influence of the financial restrictions based on their income level. Home buyers also placed less emphases on location and communication than all other parameters.

17	Soon, A., & Tan, C. (2019)	The study examines the housing preference and housing affordability in Malaysian housing markets.	1) housing attributes 2) locational attributes 3) security attributes	The findings revealed that only a very small percentage of respondents thinks home exterior and neighborhood as the least important factors for housing security. Based on the analysis, the respondents are more likely to buy a new house to upgrade their current lifestyle with housing attributes such as privacy and floor plan as the biggest concerned attributes to the household.
18	Mohanna, A. B., & Alqahtany, A. (2019)	This study examines the preferred characteristics of buyers of single-family homes in Saudi Arabia with an emphasis on the city of Dammam.	1) housing characteristics 2) neighborhood characteristics 3) financial characteristics	This research revealed the most important factors that influenced home purchase decision in the study area: geographical location within the city, nearness to neighborhood facilities (schools, mosques, primary health center, parks, workplace, CBD) and the main housing financing method (personal saving, loan, public/employ financing). It shows that most homebuyers target new and well-serviced neighborhoods in Dammam.
19	Ting, X. (2008)	The paper aims to analyze the Shenzhen housing market.	1) transaction attribute 2) property specifics 3) location attributes	This study suggested that housing transaction price is closely related to physical attribute, absolute location, and household profile. Moreover, the study highlights the interactive

			4) buyer's socio-economic characteristics	nature of absolute location, household characteristics and housing attributes as they combine to explain variations of house price in Shenzhen market.
20	Gupta, V. K., & Malhotra, G. (2016)	The purpose of this study is to understand customers' preferences for housing attributes in India.	1) number of rooms 2) price 3) flat size 4) open area 5) floor level 6) premium finishing 7) location 8) amenities offered	The study revealed that the customer in Delhi mainly prefers to buy residential flats only if they have sufficient family income to pay loan installment. There are also differences in the preferences in the number of rooms and floor level.

Source: Author Interpretation

Economic Conditions

Economic conditions in this research measured by residential property price index developed by Bank Indonesia (BI). A study revealed property price index shows a high correlation to the transaction price of housing. (Wilhelmsson, 2002) Property price index is a proxy for macro demographic and economic factors. These tools can show consumers the areas where home values are increasing or decreasing so they can estimate prices.

Payment Methods

The payment methods chosen by the first-time home buyer in Indonesia is also influencing the price of housing. Choices of payment methods including cash, instalment to the developer, and Mortgage (KPR). KPR is a credit facility provided by banks to individual customers who will buy or repair houses. KPR consists of 2, namely subsidized KPR and non-subsidized KPR.

Quality

Quality in housing is including the air circulation, infrastructure (sanitation, electricity, water), environment (green, clean, healthy), and natural lighting. Set of high quality associated with relatively high prices for the upper-middle class housing units. (Wulandari, Oktafiana, Faqih, & Hayati, 2016) This also in line with primary factor that influencing Asian countries preferences, choosing natural ventilation as the fundamental sort of energy which promotes health, peace and ample levels of sunlight penetration. (Wang & Li, 2006) Quality of the house is also taken into consideration in selecting a dwelling for home buyers.

Location

The location of a residential property in a city directly affects its market price. (Fernández-Durán, Llorca, Ruiz, Valero, & Botti, 2011) The definition of location is the distance between the house and daily activities takes place, whether in the cities or suburbs (Olanrewaju & Woon, 2017) Much of the affordable housing is situated far from the cities, thus expanding the time for commuting and fuel costs. Many operating far away from their homes would have no choice

but to use private vehicles with a bad public transport service. These factors have a significant concern for consumer to determine the housing location. House located in a strategic area often has more appeal than those who do not. Many large real estate developers willing to invest in direct toll road access to their area of development to increase the sales of their products. (Rahadi R. A., Wiryono, Koesrindartoto, & Syamwil, Factors influencing the price of housing in Indonesia, 2015) This means the location happens as one of the factors that can increase the value of housing.

Physical Attributes

Previous study of literature found that the physical attributes of housing product are influencing costumer's perception toward whether the current housing price is appropriate. (Rahadi R. A., Wiryono, Koesrindartoto, & Syamwil, Factors influencing the price of housing in Indonesia, 2015) In general, physical attributes included number of bedrooms, number of bathrooms, number of floors, lot size and area have been identified as attributes that influence home-buying preferences. (Moghimi & Jusan, 2015) Although many of research have been revealed the housing attributes preferences, space has been identified as a leading aspect of the home-buying decision-making process.

Facilities

Increased in income resulted in increasing priority person will meet the needs of social facilities and comfort, stated by Drakakis Smith (in Budihardjo, 1987) Facilities are the housing environment that could offer convinience by the availibility of supporting facilities such as educational facilities, worship facilities, shopping facilities, medical facilities (Wulandari, Oktafiana, Faqih, & Hayati, 2016) Previous study found facilities as one of the highest score in home buyers preference. How close the house from the available facilities should influencing the housing price.

Design and Aesthetic Aspects

Design and aesthetic aspects consist of two categories, which interior design and exterior design. A research finding reveals that consumer is willing to pay more for an interesting façade design. (Riccardo, van Oel, & de Jong, 2010) This happens because design and aesthetic aspects in one of the factors that immediately caught by home buyers house whenever they see the house for the first time. A study conducted in 2012 also revealed the influencing factors affecting housing product price perceived from the real estate developer and real estate consumer. The result suggested that from the residential and real estate developer point of view, design is included as one of the major factors that influencing the price for housing products. (Rahadi, Wiryono, Koesrindartoto, & Syamwil, 2012)

Methodology

Based on the examined literature synthesis, this research successfully identified seven significant factors influencing housing price for first time home buyer. All of these factors were determined by the previous study and each factor was grouped into one primary indicator that represents the mentioned factors.

Conclusions

Based on the literature synthesis analysis, this research concluded that there are seven factors that influencing housing price for first time home buyer. The key factors are the economic conditions at the year of buying a house, payment methods, quality, location, physical attributes, facilities, design, and aesthetic aspects. The results of this study can be used to assess government regulations, strategies for real estate developers, or the first-time home buyer itself.
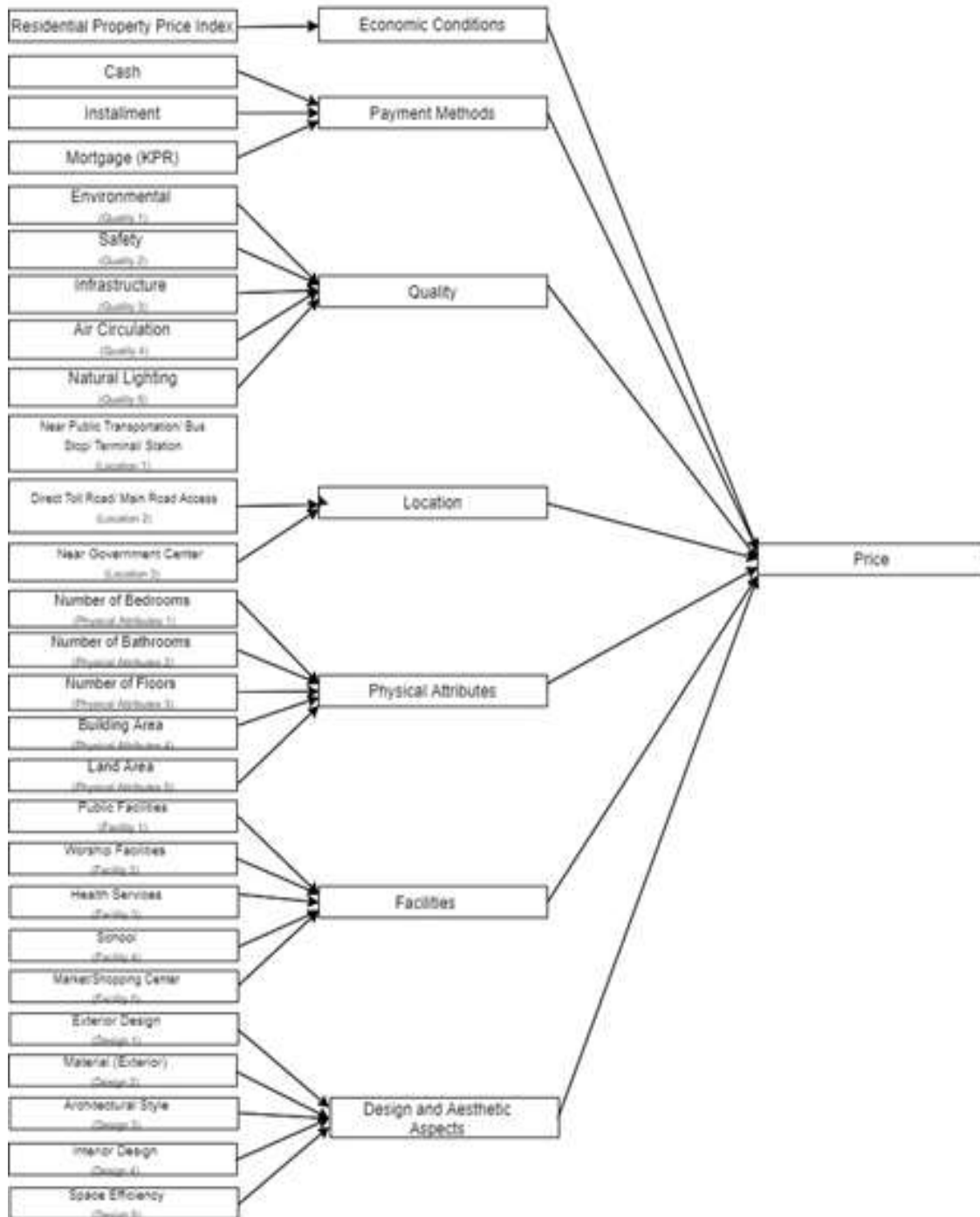

Figure 1: Conceptual Framework Research
Source: Author Interpretation

The future research could use the quantitative approach to analysing the real data of first-time home buyer and applied it based on the conceptual framework research that have been found in this research. This finding could be used to know the influencing factors for a niche market or even the other nations. By knowing the first-time home buyer preferences, regulations and the right products will be generated by the authorities. Finally, in order to create a better understanding of the real estate industry in Indonesia, more research related to housing price could be compared to the findings in this paper.

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