

Driving Factors of Developers in Developing Apartment in Depok

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Abstract. This research was conducted to find the factors that influenced developers in developing apartments in Depok city, especially in Margonda Street and its surroundings. Seeing the massive development of apartments, it is interesting to examine the factors that encourage developers in developing apartments in order to understand the market conditions of supply. The analytical technique used descriptive statistics, ie with one sample t-test to determine the factors that have or have no influence on developers in developing apartments in the city of Depok. In addition, it also conducted a relative rank index analysis (RRI) to determine the dominant factors on developers in developing apartments in the city of Depok. The results of the analysis show that all factors in the research variables, Population Income, Total Population, Population Growth, Total Manpower, Number of College Students, Market Price, Tax, Ease of Loan, Interest Rate, Down Payment, Land Allocation (Government Regulation), Investment and Market segmentation, were influential in developing apartments in Depok City. While RRI analysis indicated that market price and market segmentation were the most dominant factors. In addition, the number of college students, investment and land allocation were also important factors for developers in developing apartments in Depok City. The results of the study are expected to be beneficial for property developers, especially on the development of apartments.

Keywords: Development, Apartment, Supply, Demand, Factor, Developers

1. Introduction

The current apartment market is increasingly in demand for investment or housing needs[1]. Likewise that happens in the city of Depok, as a hinterland of Jakarta, the development of apartments in the city of Depok is so vibrant. Until 2017, there are 9 apartments that have been handed over and 9 apartment projects are still on marketing stage. Based on the plan, the nine projects that are being marketed will supply the number of apartments as many as 22,743 units of apartments until 2023.

The number of apartment developments is one of them driven by the presence of quite a lot of college students in the city of Depok. Increasing the number of people is unavoidable when there are educational activities in an area. This will affect the surrounding environment [2]. The large number of college students is seen by developer as a great market niche of apartment development. Because these college students will need a place to live that are close to their place of study. In addition, the proximity to Jakarta also help to stimulate the development of apartments in this city.



The proximity to Jakarta as well as the admission of new college students in each university each year, makes the city of Depok experiencing an increase in population and increased need of residence. Meanwhile, the available land is getting limited with the higher land price. The tendency that we can see is that new college students will find residential which are close to the campus and are equipped with complete facilities. Likewise with commuter workers, they will do the same because of the expensive housing in Jakarta.

Because of the increasing population, the demand for land will continue to grow, while the available land is increasingly limited. It is intensively conducted by the government and private sector to hold development especially the intensification of function in downtown, that is vertical development in this case "high rise apartment" for the concentration of residence in downtown.

As a result of the increasingly crowded conditions and the need to reside which become higher, the developers build a vertical dwelling or apartment. In the city of Depok, the construction of apartments in this city is quite massive in recent years. So, these concerns raise a question: "What factors drive developers in developing apartments in Depok City?".

Several previous researches, generally only see location as a factor affecting in developing the apartment. For instance, Krisnaputri [3] discussed the pattern of choosing the location of apartment development in Surabaya by the developer, with the aim to know the pattern of choosing the location of apartments in Surabaya based on the developer's perspective. Similarly, Nisa [4] identified the phenomenon of the development that rampantly occurred and also the factors that influence the selection of apartment construction location on the perspective of government, developers and residents. Mollah et al [5] identified the factors that affect consumers to buy an apartment rather than land. This research will try to see other demand that become the appeal of developer in developing the apartment. The results of this study is expected to be a provision of information for the people of Depok City to continue to guard the construction of existing apartments in the city of Depok. Moreover, it can be used as a guideline for local government to provide an idea of developer for preferences in choosing the location of apartment development, so that it can make the existing space beneficial to society.

In the literature there are two major factors, namely property and residential demand factors. Property is related to land used by people for various purposes: industry, commercial, residential, and special use. But the main object in this study is residential property. Residential property consists of two main categories. They are one household (single family), and multiple household (multifamily) [6].

Meanwhile, in relation to the residential demand factor, Schmitz, A., L. Brett, D [7] explains that there are at least five influencing factors: the number of labor, population or population growth, household, either traditional or students who rent a house together, revenue, and market segmentation.

Barrett and Blair [8] argue that the economic factors that directly affect the success of housing projects are demand and supply. Demand is assumed to be a function of the population, income, labor, price, tax, interest rate, down payment, and future expectations.

Furthermore, based on Putong [9], in general, the demand for occupancy is influenced by several factors, such as:

- a) The wealth of society. The higher the income, the higher the demand level.
- b) The rate of return on capital from owning a house. If the real rise of the value of a house as an investment increases, the demand for housing will increase
- c) Acceptable income from other assets
- d) Interest rate. The higher the interest rate, the larger the repayments to be paid so the lower the interest of the society in buying a house
- e) Population growth and income. In the long term, population growth and income will further increase demand for housing.

Housing demand is also affected by three factors: income, mortgage rates, and taxes. As income rises, more families buy their first house or move to a larger house. People will increase their demand when they expect a higher fixed income. The mortgage interest rate will affect the demand because credit

payments will be burdened with interest. In the meantime, government tax regulations do not change often, but when it happens, it will affect the demand for housing [10].

Firdaos [11] explains that the demand for residential areas is influenced by factors as follows:

a) Location

The existence of the location, whether in the center or in the edge of the city will greatly affect consumer interest in buying a home. The more strategic the location of the housing means the better and has a higher level of demand.

b) Population increase

For the reason that everyone needs a place to live as a shelter, any increase in the population both natural and non-natural (due to urbanization) will increase demand for houses.

c) Income

A person's ability to own a home is greatly influenced by the income he earns. If a person's income increases and economic conditions do not experience recession and inflation, the propensity to own a home will increase both in quality and quantity.

d) Ease of Getting Loans

In the residential property market, housing demand is also affected by government policies and financial institutions such as banking. Characteristics of the property market that requires large funds cause consumers become very dependent on the ease of funding. The ease of funding can be in the form of loan credit facility, decrease of loan interest rate, and loan repayment period.

e) Facilities and Public Facilities

Facilities here include public facilities and social facilities, including infrastructure, educational facilities, health, religion, transportation facilities, and others. The existence of such facilities builds and attracts investors who will further increase demand for houses in the region.

f) Market price

As in the case of demand and supply theory, the higher the price of goods will lead to a decrease in demand for the intended goods. If the price of a medium-sized house rises, the propensity to own a house with that price level will decrease and demand will move to the house for a lower price.

g) Constitution

Regulations on the types of land/land use rights that restrict land rights are also factors that affect consumers' demand for housing. Likewise, other regulations such as tax laws (PBB and BPHTB) also become factors that become consumer consideration in buying a house.

Eckert [12] mentioned some factors that are very important and affect the housing market demand, they are:

- a) Economic factors. Changes in economic factors that affect housing demand are income, interest rate, loan policy, rental rate and house price.
- b) Social factors include population density, family size, education, crime rate and age distribution.
- c) Government factors involve Zoning, municipal government services and public tax rates.
- d) Environmental factors. Changes in environmental factors that affect housing demand are topography, landform, soil conditions and ease of facilities such as parking, shopping centers, schools, places of worship, employment opportunities, transportation and business license services.

Based on these literature, positive factors that influence Developers in developing apartment, especially along Margonda Road, Depok are population income, total population, population growth, total manpower, number of college students, market price, tax, ease of loan, interest rate, down payment, land allocation, investment, and market segmentation.

Therefore, based on the background, problem formulation and research questions, the purpose of this study is to determine the factors that affect developers in developing apartments in the city of Depok.

2. Research Methods

2.1. Data Collection

The process of collecting data was divided into two, namely the primary data and secondary data. Primary data consisted of interview and questionnaire given to developers who are building apartment projects in the city of Depok, especially along Margonda street. In this study, there were five developers who had been successfully interviewed from a total of nine existing developers. Meanwhile, secondary data were supporting data obtained from several government agencies such as Central Bureau of Statistics and some developers related to apartment project plan.

2.2. Data Analysis

From the available data, the analysis was conducted by using the method based on the results of the review: Descriptive statistics and Inferential statistics. Descriptive statistics covers data summary in the form of tabulation data (tables). Inferential statistics involves data summary in the form of statistical estimation method and Relative Rank Index (RRI). Before performing the analysis through RRI, to determine the factors that influence developers in developing apartment, the analysis of one sample t test is operated. Then, to find out the dominant factor, RRI analysis is used. The database of this analysis is from the results of questionnaires processed through Likert-scale analysis.

The RRI formula used is (equation 1):

$$RRI = \frac{1}{nN} \left(\sum_{i=1}^i l_i X_i \right) \quad (1)$$

n : Likert scale highest number

N : Number of respondents

il : Likert scale, where i 1 scale is lowest and n 1 scale is highest.

Xi : The frequency of the selected scale scores of respondents from i = 1 to n.

3. Discussion

3.1. Factors Driving Developers in Developing Apartments in Depok City

Analysis of the factors affecting developers in developing an apartment in the city of Depok, especially around the street margonda aims to determine the factors that have influence and have no influence. The analytical technique used was likert scale analysis, with a rating scale of 1-5 (very unimportant-very important) for each category of answers on the questionnaire. The method of analysis used one sample t test.

The sample mean (t-value) set forth in this study was 3.00 on the scale of the 1-5 enters with a significance level of 5%. Then the hypothesis that came up was:

Ho: These factors have no effect on developers in developing apartments in Depok City

H1: These factors affect the developer in developing apartments in the city of Depok.

Statistical hypothesis

Ho: $\mu \leq 3.00$

H1: $\mu > 3.00$

Based on Probalitas:

If sig > 0.05, then Ho is accepted

If $\text{sig} < 0.05$, then H_0 is rejected

Test parameters:

If $t\text{-table} \leq t\text{-count}$, then H_0 is accepted

If $t\text{-table} > t\text{-count}$, then H_0 is rejected

In accordance with the literatures described above, there were 13 factors to be analyzed: Population Income, Total Population, Population Growth, Total Manpower, Number of College Students, Market Price, Tax, Ease of Loan, Interest Rate, Down Payment, Land Allocation, Investment, and Market Segmentation. These factors then became questions on the questionnaire given to the developers as respondents.

Table 1 Questionnaire Result with Developer

Factor	VU	U	LI	I	VI
Population Income	0%	0%	20%	40%	40%
Total Population	0%	0%	0%	80%	20%
Population Growth	0%	0%	0%	40%	60%
Total Manpower	0%	20%	20%	60%	0%
Number of College Students	0%	0%	0%	20%	80%
Market Price	0%	0%	0%	0%	100%
Tax	0%	20%	40%	20%	20%
Ease of Loans	0%	0%	0%	80%	20%
Interest Rate	0%	20%	0%	40%	40%
Down Payment	0%	20%	0%	80%	0%
Investment	0%	0%	0%	20%	80%
Market Segmentation	0%	0%	0%	0%	100%
Land Allocation (KLB)	0%	0%	0%	20%	80%

Source: author, 2018

Information : VU : Very Unimportant; U : Unimportant; LI : Less Important; I : Important; VI : Very Important

The results of the questionnaire (**Table 1**) were then processed statistically and simplified as the following summary table (**Table 2**).

Table 2 Factors affecting developers in developing apartments in Depok City

Factor	μ	p-value	Conclusion	Effect Level
Population Income	4.20	$0.00 < 0.05$	Reject H_0	Take effect
Total Population	4.00	$0.00 < 0.05$	Reject H_0	Take effect
Population Growth	4.40	$0.00 < 0.05$	Reject H_0	Take effect
Total Manpower	3.40	$0.01 < 0.05$	Reject H_0	Take effect
Number of College Students	4.80	$0.00 < 0.05$	Reject H_0	Take effect
Market Price	5.00	$0.00 < 0.05$	Reject H_0	Take effect

Tax	3.40	$0.03 < 0.05$	Reject H_0	Take effect
Ease of Loans	4.20	$0.00 < 0.05$	Reject H_0	Take effect
Interest Rate	4.00	$0.02 < 0.05$	Reject H_0	Take effect
Down Payment	3.60	$0.01 < 0.05$	Reject H_0	Take effect
Investment	4.80	$0.00 < 0.05$	Reject H_0	Take effect
Market Segmentation	5.00	$0.00 < 0.05$	Reject H_0	Take effect
Land Allocation (KLB)	4.80	$0.00 < 0.05$	Reject H_0	Take effect

Source: author, 2018

Based on the above table, it can be seen that all factors had an influence on developers in developing apartments in the city of Depok. The income factor of the population affected the developer because the population with high purchasing power was a big market potential. Depok demography also supported the potential income, data Central Bureau of Statistics noted that the population with the amount of income above Rp. 6 Million per month is the majority.

The other influencing factors were population and population growth. These factors were influential because the population and its growth projection greatly affected the prospects of the property market. The population in which there was potential markets should be seen as a major factor in the property business prospects, although per capita income should also be seen because not all residents were market potential.

Total Manpower was also included as factor that affected developers in developing apartments in downtown Depok. The proximity to Jakarta as well as the high price of houses in the city center encouraged developers to take this market gap.

The existence of a campus with a big name in Depok also influenced developers to develop vertical dwelling. Campuses with a considerable number of students were seen as a potential market in the development.

Furthermore, the market price was also an influential factor because this price was the main thing in property development. Competitive price was the price that could be absorbed by the market. Meanwhile, taxes, ease of lending, interest rates and down payment also affected the apartment development because with the many ease would be very helpful for the prospective buyers. Next is the investment, this factor was influential because of the potential lease of the number of students who were in downtown Depok. Market segmentation was also influential because especially in Depok, the population of the middle class was quite a lot.

The last is the factor of government regulation. In this case, the supporting location and the high coefficient of building floor (KLB) also influenced developer in developing apartment in downtown Depok.

3.2. Relative Rank Rank Index (RRI) Analysis of Factors Affecting Developers In Developing Apartments In Depok

Before performing RRI analysis, Cronbach's Alpha analysis was performed through SPSS version 21 and the data used to calculate the cronbach's alpha reability was based on the questionnaire data.

The result of Cronbach's Alpha reability test was quite satisfactory because the resulting index was 0.828. According to Sekaran [13] reability that less than 0.60 is poor, whereas 0.70 is acceptable and above 0.80 is good. Because the index value was more than 0.80 then it can be concluded that the research instrument had been reliable or could be trusted.

Table 3 Relative Rank Index (RRI) Towards Factors Affecting Developers In Developing Apartments In Depok

Factor	Average	Rank
Market Price	1.00	1

Factor	Average	Rank
Market Segmentation	1.00	1
Number of College Students	0.96	2
Investment	0.96	2
Land Allocation	0.96	2
Population Growth	0.88	3
Population Income	0.84	4
Ease of Loans	0.84	4
Total Population	0.80	5
Interest Rate	0.80	5
Down Payment	0.72	6
Total Manpower	0.68	7
Tax	0.68	7

Source: author, 2018

Referring to RRI result (**Table 3**), Market Price and Market Segmentation were the most dominant factors. In addition, the number of college students, investment and land allocation are also important for developers in developing apartments in downtown Depok.

The dominance of price factor and segmentation were also reflected from the selling price and market segmentation which was targeted at this time, dominated by middle segment with selling price range Rp. 500 millions to Rp. 1 billion.

In addition, the number of students and investment factors were also in line with price and segmentation. In which with the target market of students and investment, then the selling price was also not too high.

4. Conclusion

Referring to the results of the analysis, results revealed that all factors, Population Income, Total Population, Population Growth, Total Manpower, Number of College Students, Market Price, Tax, Ease of Loan, Interest Rate, Down Payment, Government Regulation, Investment and market segmentation, were influential to developer in developing an apartment in Downtown Depok. However, to see the most dominant factor, based on RRI analysis results, the important factors affecting developers in developing apartments in downtown Depok were as follows:

- Market Price 1.00
- Market Segmentation 1.00
- Number of College Students 0.96
- Investment 0.96
- Government Regulation (Land Allocation) 0.96

The selected factors revealed a link between the selling price, the number of college students and the investment. These three factors indicated that the selling price of the marketable apartment was for the middle-medium segment, maximum. Students as the target market also contributed to limit the selling price which could not be too expensive, so that students as a potential target of lease could easily afford the apartment. Besides that, if the price was expensive, it would certainly compete with the choice of a landed house. This condition was seen from the selling price offered at this time that was

in the range of Rp. 500 Million to Rp. 1 Billion, in which the range of selling prices was for the middle-medium segment

5. References

- [1] Ardiyanto W 2017 Apartemen kini jadi hunian incaran dan investasi yang menjanjikan
- [2] Allinson J 2006 Over-educated, over-exuberant and over here? The impact of students on cities *Plan. Pract. Res.* **21** 79–94
- [3] Krisnaputri N A 2016 *Pola Pemilihan Lokasi Pembangunan Apartemen Di Surabaya Oleh Pengembang* (Institut Teknologi Sepuluh Nopember)
- [4] Nisa I 2016 *Fenomena Pembangunan Student Vertical Apartment di Aglomerasi Perkotaan Yogyakarta dan Faktor-Faktor yang Mempengaruhi Pemilihan Lokasinya. Kasus: Apartemen Student Castle.* (Universitas Gadjah Mada)
- [5] Mollah M M H, Haque I and Pasha S H A 2009 Factors influencing apartment buying decision: An analysis of company and customer *Southeast Univ. J. Bus. Stud.* **2** 109–17
- [6] Kyle R C, Baird F M and Spodek M S 2000 *Property Management* (Real Estate Education Company)
- [7] Brett D L and Schmitz A 2009 *Real Estate Market Analysis: Methods and Case Studies* (Washington: Urban Land Institute)
- [8] Barrett G V and Blair J P 1988 *How to Conduct and Analyze Real Estate Market and Feasibility Studies* (New York City: Van Nostrand Reinhold)
- [9] Putong I 2002 *Pengantar Ekonomi Mikro dan Makro* (Jakarta: Ghalia Indonesia)
- [10] Dornbusch R, Fisher S and Startz R 2004 *Makroekonomi, Edisi Bahasa Indonesia* (Jakarta: PT. Media Global Edukasi)
- [11] Firdaos A 1997 *Permintaan dan Penawaran Perumahan Valuestate* vol 007 (Jakarta)
- [12] Eckert J K, Gloudemans R J, Almy R R and of Assessing Officers I A 1990 *Property appraisal and assessment administration* (Chicago: International Association of Assessing Officers)
- [13] Sekaran U 2006 *Metode Penelitian untuk bisnis* (Jakarta: Salemba Empat)