The Factors of Choosing Location of Low Cost Housing in Kertak Hanyar Subdistrict, Banjarmasin

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Abstract- The increase in the growth of low-cost housing in Kertak Hanyar Subdistrict occurred since the launch of the One Million Houses Program by the government and the issuance of beleid which stipulated the distance of land areas permitted to transfer functions and the existence of directives for housing development Kertak Hanyar Subdistrict by the Banjar Regency government as a City Settlement area and village housing, which is useful as a buffer for housing needs for the City of Banjarmasin and its surroundings. However, the increase in housing can cause sporadic housing distribution (unpredictable) can result in inefficient provision of infrastructure, public transportation, urban facilities and infrastructure and trigger regional growth that is not in accordance with spatial plans. The purpose of this study was to determine the factors that influence low-cost housing developers in determining the location of housing in order to make the government can be more effective in providing infrastructure, public transportation, urban facilities and infrastructure. This type of research is correlation research, which is looking for the relationship between independent variables and dependent variables in choosing a low-cost housing location in Kertak Hanyar Subdistrict. The research method used is quantitative methods. Quantitative approach is used to measure the factors that influence the selection of housing locations in Kertak Hanyar Subdistrict using statistical analysis tools namely scoring techniques. Data collection in this study was carried out in two ways, which are primary survey and secondary survey. Primary survey is a survey carried out directly related to low-cost housing developers directly in the field. Primary surveys are carried out in various forms, namely by preparing questionnaires, visual observations in the field, interviewing the objects of the study and group discussions. Secondary survey is carried out indirectly where researchers search data from the government or agencies related to housing. The contents of the questionnaire consisted of 2 types, that are low-cost housing developers data and questionnaire tabulation, which is by giving a score or value based on the developer's perception. The results of the studies suggest that factors influence the price of land has the highest levels of the other factors. This is due to cheap land prices economically will certainly be more beneficial for low-income housing developers.

Index Terms- housing, low-cost,

I. Introduction

The rise of the construction of low-cost housing built by developers in a number of suburbs of large cities is now beginning to attract the public to own it. It happened since the launch of the One Million Houses Program in 2015 by the government, which is by offering KPR low interest mortgage offers, cheap installments, and a long period of credit to consumers makes cheap home sales continue to increase. In addition, the convenience is also given to the housing developer, namely the existence of a stimulant assistance program in the provision of Infrastructure, Facilities and Utilities (PSU) so that the selling price of houses for low-income communities (MBR) can be reduced according to what is set by the government.

Kertak Hanyar Subdistrict is one of the many suburbs experiencing housing growth. This can be seen from the emergence of many cheap home developers since the One Million Houses Program. In addition, there are directives from the local government of Banjar Kertak Hanyar Subdistrict is an urban settlement and village housing area., which is useful as a buffer for housing needs for the city of Banjarmasin and its surroundings [1]. However, the increasing number of housing in the Kertak Hanyar Subdistrict was not accompanied by the role of the government as the supervisor. As a result, the Kertak Hanyar Subdistrict area occurred with uneven housing growth and infrastructure networks that were less supportive for residential areas [2]. The location of sporadic (unpredictable) housing can result in inefficient provision of infrastructure, transportation, urban facilities and infrastructure and trigger regional growth that is not in accordance with the spatial plan [3].

Thus, to control the growth of housing in Kertak Hanyar Subdistrict, it is necessary to develop a research on the factors that influence low-cost housing developers in determining the location of housing in Kertak Hanyar Subdistrict. It is hoped that later this research is able to be a guide in making housing zoning in order to create a regular housing area and in accordance with local regulations. In addition, this is an important stage that determines the success of the One Million Houses Project, because the selection of housing locations involves the large role of developers can affect the development of a city.

II. RESEARCH ELABORATION

The theoretical studies presented in this chapter contain supporting literature related to the research theme. This literature review describes the factors of housing location selection.

A. The Understanding of Housing

Housing is a collection of houses as part of settlements, both urban and rural which are equipped with infrastructure, facilities and public utilities as a result of efforts to fulfill livable houses [4]. Low-cost housings is type of housing that are usually reserved for low-income people, still has minimal facilities and are usually located far from the downtown [5]. It has a floor area of <36 m², a land area of <90 m² and a selling price of 30 million < S <150 million. Based on the explanation above, subsidized houses are part of a low-cost house.

B. Housing Selection Criteria

There are 7 factors that influence developers in determining the location of housing, that are law and environment, facilities, factors, location, community, service facilities and costs [5]. Furthermore, these 7 factors are influenced by some 18 variables, which are:

1. Legal and environment - consists of 2 variables, that are:
   a. Regulations and permits in building (X1)
   b. Clear land ownership status (X2)
2. Facility – that is the availability of regional facilities (X3).
3. Technical factors - consists of 3 variables, that are:
   a. Land characteristics (X4)
   b. Easy to do (cut & fill) (X5)
   c. Easy to do expansion (X6)
4. Location - consists of 5 variables that influence it, that are:
   a. Accessibility (X7)
   b. Ease of transportation infrastructure (X8)
   c. Close to the city center (X9)
   d. Directions for the development of the city (X10)
   e. Not in disaster-prone areas (X11)
5. Society - there are 4 variables that influence it, that are:
   a. Traffic conditions (X12)
   b. Noise (X13)
   c. Purchasing power (X14)
   d. Not a pollution area (X15)
6. Service facilities - availability of social infrastructure (X16)
7. Costs - there are 2 variables that influence it, which are:
   a. Land price (X17)
   b. Easy sales (X18)

C. Population and Research Sample

The population was housing developers in Kertak Hanyar Subdistrict. The population of low-cost housing developers in Kertak Hanyar Subdistrict is 25 developers. This study uses a total sampling method (uses all members of the population) to achieve more accurate results.

III. FINDINGS AND RESULTS

A. Distribution of Housing Development Locations in Kertak Hanyar Subdistrict

Since the launch of the "one million homes" program in 2015, there has been housing growth in Kertak Hanyar Subdistrict, especially in low-cost housing. This matter because the government programs provide convenience for low-income people (MBR) to be able to own a house. In addition, the convenience is also given to developers. There is a stimulant assistance program in the provision of Infrastructure, Facilities and Utilities (PSU). Therefore, the selling price of houses for MBR can be reduced according to government regulation.

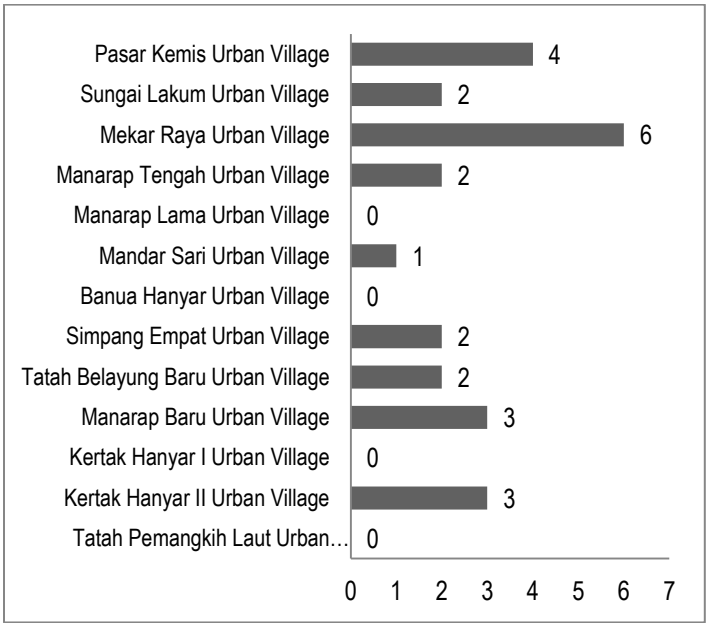
There are currently 25 low-cost housing developers in Kertak Hanyar Subdistrict. The following is the distribution of low-cost housing developers that are active in each Urban Village in Kertak Hanyar Subdistrict.

Table I : Distribution of Low-Cost Housing Development Locations in Kertak Hanyar Subdistrict

No	Kelurahan	Number
1	Pasar Kemis Urban Village	**4**
2	Sungai Lakum Urban Village	**2**
3	Mekar Raya Urban Village	**6**
4	Manarap Tengah Urban Village	**2**
5	Manarap Lama Urban Village	**-**
6	Mandar Sari Urban Village	**1**
7	Banua Hanyar Urban Village	**-**
8	Simpang Empat Urban Village	**2**
9	Tatah Belayung Baru Urban Village	**2**
10	Manarap Baru Urban Village	**3**
11	Kertak Hanyar I Urban Village	**-**
12	Kertak Hanyar II Urban Village	**3**
13	TatahPemangkih Laut Urban Village	**-**
Total		**25**

Source: Researcher's Analysis, 2018

Graphic 1 : Number of low-cost housing developers in Kertak Hanyar Subdistrict



Source: Researcher's Analysis, 2018

Fig. 1. Distribution of Low-Cost Housing Development Locations in Kertak Hanyar Subdistrict
Source: Researcher's Analysis, 2018

B. Analysis of Influencing Factors in Determining Housing Location

Analysis of factors influences the determination of location using scoring techniques. Giving an answer score is the answer value that will be given by the respondent. The first thing to do is to determine the score of each answer that will be given [6]. The score used numbers from 1-5 to indicate the level of influence, which are:

- Score 1 : stating the level is very uninfluential
- Score 2 : stating the level is uninfluential
- Score 3 : stating the level is influential enough
- Score 4 : stating the levels is influential
- Score 5 : stating the level is very influential

The next step is analyzing. It is done by using statistical calculation by grouping based on a predetermined scale. The purpose of this grouping is to determine the index of the level of influence of a variable as a whole. The next step is to value the questionnaire that has been distributed to 25 housing developers.

Table II: Low-cost housing questionnaire calculation

Var.	Value and score	Level of influence					Total
		1	2	3	4	5	
X1	Number	-	-	5	7	13	
	Value	-	-	15	21	65	101
X2	Number	-	-	2	13	10	
	Value	-	-	6	52	50	108
X3	Number	3	8	12	2	-	
	Value	3	16	36	8	-	63
X4	Number	-	10	13	2	-	
	Value	-	20	39	8	-	67
X5	Number	6	7	9	3	-	
	Value	6	14	27	12	-	59
X6	Number	2	4	6	10	3	
	Value	2	8	18	40	15	83
X7	Number	1	10	6	5	3	
	Value	1	20	18	20	15	74
X8	Number	2	14	6	2	1	
	Value	2	28	18	8	5	61
X9	Number	1	10	11	2	1	
	Value	1	20	33	8	5	67
X10	Number	-	5	11	8	1	
	Value	-	10	33	32	5	80
X11	Number	4	2	2	10	7	
	Value	4	4	6	40	35	89
X12	Number	2	7	11	4	1	
	Value	2	14	33	16	5	70
X13	Number	-	4	12	9	-	
	Value	-	8	36	36	-	80
X14	Number	-	2	6	11	6	
	Value	-	4	18	44	30	96
X15	Number	1	8	8	3	5	
	Value	1	16	24	12	25	78
X16	Number	3	8	12	2	-	
	Value	3	16	36	8	-	63
X17	Number	-	-	2	5	18	
	Value	-	-	6	20	90	116
X18	Number	-	4	12	8	1	
	Value	-	8	36	32	5	81

Source: Researcher's Analysis, 2018

The following step is to calculate the index value of each variable with the formula:

Index Formula % = Score Total / Y x 100

Total score : Represents the number of scores for a variable

Y : Likert highest score (5) X number of respondents

After obtaining the index value for each variable, the level of influence of each variable on the dependent variable is the value.

After obtaining the index value of each variable, the next step is to calculate the class interval distance to get a

description of influence level of each variable. The following calculations are carried out:

R = The biggest data – The smallest data
R = 92,80 – 47,20
R = 45,60

Therefore, the range is 45,60 . Then the next step is to calculate the class interval in the following way.

I = R / K
I = 45,60 / 2 (number of classes)
I = 22,80

Description :
I = Class interval
R = Range
K = Number of classes to be made (number of likert scale scores)

Therefore, the class interval is **22,80**. The next step is to make the table score interpretation criteria based on the class interval:

Table III: Score Interval

Answer	Description
Angkat 47,20 – 70	No effect
Angkat 70,10 – 92,80	Take effect

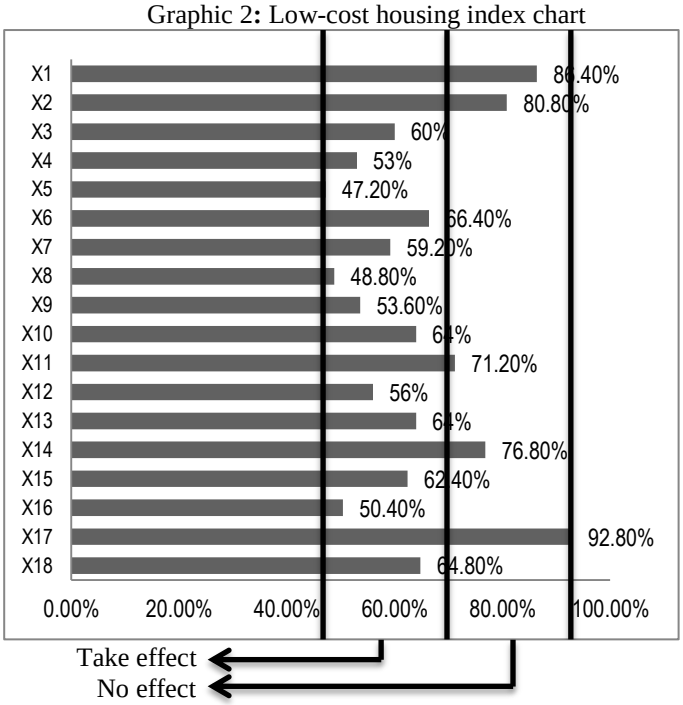
Source: Researcher's Analysis, 2018

Table IV: Low-cost Housing Index Value

Var.	Factor	Total	Index	Description
Legal and Environmental Factors				
X1	Clear land ownership status	108	86,4%	Take effect
X2	There are regulations and permits in building construction	101	80,8%	Take effect
Facility Factors				
X3	Availability of regional facilities	75	60%	No
Technical Factors				
X4	Land Characteristics	67	53,%	No
X5	Easy to do (cut & fill)	59	47,2%	No
X6	Easy to do expansion	83	66,4%	No
Location Factor				
X7	Accessibility	74	59,2%	No
X8	Ease of transportation infrastructure	61	48,8%	No
X9	Close to the city center	67	53,6%	No
X10	Directions for the development of the city	80	64%	No
X11	Not in disaster-prone areas	89	71,2%	Take effect
Community Factor				
X12	Traffic conditions	70	56%	No
X13	Noise	80	64%	No
X14	Purchasing power	96	76,8%	Take effect
X15	Not a pollution area	78	62,4%	No
Infrastructure Factor				
X16	Availability of regional infrastructure	63	50,4%	No
Cost Factor				
X17	The land price	116	92,8%	Take effect
X18	Easy sales	81	64,8%	No

Source: Researcher's Analysis, 2018

Graphic 2**:** Low-cost housing index chart



Source: Researcher's Analysis, 2018

This calculation was carried out on 25 low-cost housing developers in Kertak Hanyar Subdistrict. The results obtained are as follows:

Table V: Score interpretation

Take effect	No effect
1. Land price 2. Clear ownership status	1. Easy to do expansion 2. Easy sales 3. Noise

3. There are regulations and permits in building construction 4. Purchasing power 5. Not in disaster-prone areas	4. Directions for the development of the city 5. Not a pollution area 6. Availability of regional facilities. 7. Accessibility 8. Traffic conditions 9. Close to the city center 10. Land characteristics 11. Availability of regional infrastructure 12. Ease of transportation infrastructure 13. Easy to do (cut & fill)

Source: Researcher's Analysis, 2018

1. The land price

The price of a land is different from the price of another land. One of the causes is the value of the land. The value of land that functions as a productive agricultural area is different from the value of agricultural land that is not productive. Land value is a measurement based on the ability of the land economically in relation to its productivity and economic strategy. The value of land is influenced by two things [7], which are:

- Direct land values such as land or land that can directly produce, for example agricultural land.
- Indirect land values such as land capability are seen in terms of strategic location such as land located in the trade center, offices and educational facilities.

There is a relationship between land prices and accessibility to the city center [8]. Achievement or access will gradually decline in all sides. Therefore, the price of land will decrease as the location goes from the center of the city. The price of land along the main road is higher compared to the price of land that is not on the main road.

Therefore, it can be said that the value of land in Kertak Hanyar Subdistrict may be low because of its low fertility level, but based on its strategic location it is very economical. Economically cheap land prices will certainly provide more benefits for low-cost housing developers. This matter because the target of this housing is the low-income community, thus the developers look for locations that are far from the main road, due to the cheap land prices. Hence, it can be concluded that cheap land prices affect low-cost housing developers in Kertak Hanyar Subdistrict in choosing housing locations.

2. Land ownership status

Land is an investment that can be used as collateral to financial institutions [9]. However, to get a plot of land is relatively not easy for most people. Therefore, it is necessary to provide legal certainty to provide protection for land rights that are owned by individuals or communities. Hence, it is necessary to provide legal certainty to provide protection for land rights that are owned by individuals or communities. Residents are more likely to buy the land, if it has a strong legal status of ownership. Thus, ownership of land whose fields have been arranged with an orderly environment results in increased land prices

Based on the calculation of the questionnaire on 25 respondents, they agreed that the variable land ownership status was influential in determining the location of housing in Kertak Hanyar Subdistrict. This is because clear land ownership status can provide security in infestation for developers and consumers. It is very concerned for housing developers in determining the location of housing. Those lands that already have a strong legal status of ownership, such as property rights, will make the price higher than the land that is not a property. Thus, the legal status of land ownership can be used as a determinant of land prices.

3. Regulations and permits

Based on the calculation of the questionnaire on 25 respondents, they agreed that the regulatory and licensing variables were influential in determining the location of housing in Kertak Hanyar Subdistrict. This was due to avoiding problems and constraints in future development.

This permit is intended as a control of spatial utilization in urban development [10]. When build buildings in Kertak Hanyar Subdistrict, there are several regulations and permits that are:

- Local Environmental Permit
- Permit for Land Use or Land Drying Permit
- Principle permit
- Location permit
- Permission from the Environmental Agency (BLH) or Environmental Impact Assessment (Amdal).
- Analysis of Traffic Impact
- Validation of the site plan

After these stages are implemented, the Banjar Regency government provides building permits (IMB) to people or companies to build buildings so that the design, implementation of construction and buildings are in accordance with the City Spatial Plan, Basic Building Coefficient (KDB), Floor Coefficient Buildings (KLB) that apply in Kertak Hanyar Subdistrict.

The next stage is the calculation of the IMB fee. IMB costs are calculated based on the level of use of services with a coefficient quality system of:

- Building floor area
- Number of building levels
- Building location
- Use of building
- Building construction

By having an IMB, it is easier for developers in Kertak Hanyar Subdistrict to get legal certainty and also for legal protection. The permit is done so that the building can ensure that it does not interfere and also harms the interests of others.

The construction of a residential environment in a location can only be done at a location that has been designated and approved as a residential area in accordance with the plan that has been determined and passed by the local government. This is done to create a housing environment that is organized and in accordance with local regulations. In addition, this is an important step that also

determines the success of the housing development project in Kertak Hanyar Subdistrict.

4. Purchasing power

Purchasing Power is the ability of the community to spend money in the form of goods and services. Under affordable prices, people can buy or decide where to live. In the other words, if the price of an item is higher, the lower the demand for the product. The purchasing power of people is influenced by 4 factors, which are: price, income, location and facilities [11]. The first factor is the price. The price has a negative connection to the demand for an item. When the prices rise, the demand will go down, and vice versa. The income factor also influences the demand. Income has a positive influence on the demand for an item. When the income increases, the demand for goods made by an individual tends to increases, and vice versa. Location factors can affect the demand for a house. It was stated that the location had a positive effect on the demand for a house. The better and strategic the location of a house, the more likely the demand for the house increases. Moreover, it was also stated that the existence of facilities are important in influencing the demand for a house. It was stated that there is a positive relation between facilities and housing demand, that is the better the application of infrastructure means that the demand for housing will increase, and vice versa. The high and low purchasing power of the people in Kertak Hanyar Subdistrict is determined by these four factors.

The higher a person's income, the more he wants to have a comfortable place to live. Unlike low-income people that will choose location of a place to stay that is close to workplace as the main option to reduce transportation costs. People who have experienced an increase in welfare will begin to think of owning their own homes in other places with better conditions, as the priority is far from the location of the workplace [12]. This group chooses their place of residence towards the city which will promise comfort in their residence.

5. Not in disaster-prone areas

The Kertak Hanyar area is a tornado area and a fire-prone area [1]. Areas that often experience fires are those that are used as agricultural areas. Fire occurs naturally in summer or sometimes intentionally burned by the owner in order to make the land becomes more fertile. This is very dangerous for housing directly adjacent to agricultural areas. This incident could have made the housing less interested due to fire-prone. Therefore, it is important to choose the location of housing that is not directly adjacent to the area of agricultural residents.

In addition to these two natural disasters, the disaster caused by human activities, that is floods. However, the flood did not last long. The floods soaked residents' settlements, roads, cemeteries and community farms. This is common in settlements that are directly adjacent to luxury housing. All luxury housing in Kertak Hanyar Subdistrict is built with Cut & Fill system or pile up system in order to tamp soft swampy soil. It can affect the surrounding community, one of which was flooded. However, not all housing that implements the Cut & Fill system is detrimental to the surrounding settlements. Flood can be avoided by applying the system correctly, like making drainage canals, ponds or storage lakes and others. Areas affected by floods will affect the value of land [13]. Areas that are often flooded make land prices decrease. This is what happened in Kertak Hanyar Subdistrict.

IV. CONCLUSION

In determining low-cost housing locations there are 5 factors that influence it, which are: land ownership status, purchasing power, land prices, not in disaster prone areas and the existence of regulations and permits. Of these 5 factors, it can be concluded that the orientation of low-cost housing in determining the location of housing is the price of land. This can be seen from the score tabulated by the questionnaire which states that the land price factor has the highest index value of 17 other variables. This means that land prices affect low-cost housing developers in determining the location of housing. This is proven to be true and can be seen from the calculation of the questionnaire that cheap land prices are directly proportional to accessibility, infrastructure, transportation networks and social facilities. When land prices are cheap, accessibility, infrastructure, social facilities and transportation networks are inadequate. The high and low price of land will have an impact on accessibility, infrastructure, transportation and social facilities. This is because the price of land will determine the type of housing that housing developers will offer. Low-cost housing is intended for low-income people who are going to have implications for the selling price of the house.

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