

Extended Abstract

The Highest and Best Use Analysis and Feasibility Study of Residential Housing in Malang

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Malang is the second largest city in East Java after Surabaya, located in the southern part of East Java. Malang itself has several designations. This includes ‘Education City’ because it has many notable universities, and ‘Tourism City’ because its location is in the highlands surrounded by mountains, giving it a beautiful natural scenery and cool air. A large number of people flock from outside the city for vacation, making the real estate in Malang a promising investment. These factors certainly give a big impact on property price in Malang Raya (the area consisting of the city of Malang, its suburb, and the city of Batu) due to the big amount of investors who see this opportunity to invest in real estate in Malang Raya. For example, Ijen Street and Kawi Street as the city icons and business centers in Malang, has the price of land on the market reaching 20 million to 50 million rupiahs per m². On the other hand, the current price based on tax value set by the government is only around 3 million to 4 million rupiahs per m². The increase of land price in Malang is triggered by several factors, such as the opening of new roads, highway, new campus, shopping center, residential area, and tourism area [1].

The phenomenon of this significant property price increase in Malang is the background of this research, which studies on the feasibility of the development of a residential area. The study is conducted on a piece of land in Malang, which is located near Bandulan industrial area. The purpose of this study is to know how the application and results of the highest and best use (HBU) analysis could be used on the housing projects that are equipped with infrastructures and utilities. Consequently, it would result in the highest possibility of land use, most permitted area, and the ability to produce the highest and best land value. In order to identify the most beneficial uses, the HBU analysis is required. Hidayati and Harjanto [2] define HBU as a process of data analysis to draw inferences based on selection among possible development alternatives.

From the legal aspect of the HBU analysis, the condition of the land allows for the development of housing by applying the permit in Dinas Cipta Karya Malang Regency (City Planning Department of Malang) as based on the Rencana Tata Ruang Wilayah Tahun 2010 (2010 Spatial Plans). The land permit for the area of this research is the permit as an agricultural area and the submission of land use permit will be applied to a residential area.

Based on the physical aspect, the land conditions make it possible to be developed into a residential area. Based on the result of the land assessment, the location is reachable, there are a supportive land shape and scenery, and public utilities such as health facilities, trade and commerce facilities, religious facilities, and educational facilities are available nearby. According to the market analysis, the suitable market segmentation is middle to upper segmentation, considering the competitors, the location, and also the market condition nearby. The site plan scenario and the house design are designed after segmenting the market and as the target market has been selected.

Table 1. Composition of Land per Scenarios and Financial Aspect Results

Land Composition	Scenario 1	Scenario 2	Scenario 3
Housing	20.313 m ²	21.377 m ²	20.313 m ²
Percentage	50.78%	53,44%	50.78%
Shophouses	-	-	1.420 m ²
Percentage	-	-	3,55%
Food court and Modern market	1.500 m ²	600 m ²	600 m ²
Percentage	3,75%	1,5%	1,5%
Parks / Open Green Spaces	5.409,19 m ²	5.059,54 m ²	4.542,59 m ²
Percentage	13,52%	12,65%	11,36%
Road	12.597,81 m ²	12.783,46 m ²	12.944,41 m ²
Percentage	31,5%	31,96%	32,36%
Worship Place	180 m ²	180 m ²	180 m ²
Percentage	0,45%	0,45%	0,45%
<i>Sellable Area</i>	54,53%	54,94%	55,83%
<i>Service Area</i>	45,47%	45,06%	44,17%
Annual IRR	17,10%	48,35%	49,94%
NPV	2.126.983.586	6.854.326.203	7.660.360.000
Payback Period (Quarterly)	9	8	8
BCR	1,15	1,21	1,21
Increased Land Value	77,3%	581%	624%

Based on the financial aspect as projected on Table 1, it could be seen that scenario 3 has fewer housing percentage compared to scenario 2, and it has fewer food courts and modern market facilities compared to scenario 1. However, the availability of the shophouses and less housing proportion gives scenario 3 the highest annual IRR, NPV value, and BCR ratio. This is due to the fact that the shophouses are able to attract the consumers' buying interest and increase the selling value of housing. Scenario 3 also has the highest increase of land value by 624% compared to the value of the land when it has not been developed yet. Thus the best residential scenario is scenario 3, in which the composition of land consists of a housing, along with shophouses, food courts, and modern market.

References

- [1] Pinggiran Rp. 7 juta per m². (2017, January 21). *Radar Malang*, p. 25.
- [2] Hidayati, W., Harjanto, B. *Konsep Dasar Penilaian Properti*, edisi pertama, BPFE, Yogyakarta, 2003.