

## An Analysis on The Highest and The Best Use of Ex-Bus Terminal Land, Takengon, Central Aceh Regency

Panangian Siregar<sup>1</sup>, Khaira Amalia Fachruddin<sup>2</sup>, Sugiharto Pujangkoro<sup>3</sup>

<sup>1</sup>(Universitas Sumatera Utara, Indonesia)

<sup>2</sup>(Universitas Sumatera Utara, Indonesia)

<sup>3</sup>(Universitas Sumatera Utara, Indonesia)

Corresponding Author: Panangian Siregar

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**Abstract:** The objective of the research was to find out the optimal use of a plot of land by analyzing the highest and the best use of some alternatives in using land based on Capital Budgeting. The research object was the asset of the Central Aceh District Government, ex-bus terminal land with the area of 5,902 m<sup>2</sup> and the Right of Use Certificate No. 5. The research was conducted by analyzing property productivity which included physical aspect, location, legal aspect, and regulation on layout by using threshold testing with rating grid so that the alternative for using the property could be obtained, followed by analyzing the finance for each alternative of using the property. Based on the result of the productivity analysis, it was found that there were 3 suggested alternatives of using property: hotel, downtown, and rent-system store house. based on the indicator of financial feasibility with Net Present Value, Internal Rate of Return, Payback Period, Benefit Cost Ratio, and the consideration of socio-economic effect on people, it was found that the use of downtown was indicated as more feasible than the use of hotel and store houses. The use of downtown based on socio-economic benefit yielded Net Present Value of Rp. 54,949,000,000 (fifty four billion nine hundred forty nine million rupiahs), 21.5% of Internal Rate of Return, 5 years and 2 months of Payback Period, and 2.11 of Benefit Cost Ratio. Based on the study on highest and the best use, it was recommended that the land owner; in this case, the Central Aceh District Government include the result of the research in the priority of developing planning of Ex-Bus Terminal, Takengon.

**Keywords:** Asset Optimization, the Highest and the Best Use, Benefit Cost Ratio, Socio-Economic Benefit

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### I. Introduction

The increase in people's income affects the purchasing power and investment climate in Central Aceh District, the centers of new economic activity are growing, along with the economic growth, of course the need for land as capital and media for economic activity has increased.

Land is a unique property and has special characteristics, especially its nature, and its rarity and usefulness. This is due to the limited land area or relatively fixed land area, but the human need for land ownership tends to increase so that the land has economic value, while land use is influenced by physical characteristics and facilities. According to Hidayati and Harjanto (2003) physical characteristics that affect land values include size and shape, topography, utility, site improvement, location and environment.

The influence of the location of a land on its value is important, because each part of the land has its own uniqueness based on its location, in determining locations for certain economic activities, location factors are the main consideration, therefore regulations are needed as control tools and within the District and City implemented in the Regional Spatial Plan or RTRW which was further elaborated in the Regency Spatial Detail Plan or RDTRK. This RTRW is used as a guideline in spatial use, this plan also contains guidance on land use. The use of suitable land will provide the maximum level of productivity of the land so that it will make the land value higher. Conversely, inappropriate land use will cause productivity to be less than maximum so that land values do not reach optimal levels.

The Lintang City Takengon Road Area in Central Aceh Regency Aceh Province is the economic center of Central Aceh Regency. In regional planning according to the Central Aceh District RTRW for 2012-2032 it was re-established that the area was a Strategic Economic Growth Zone (KSPE) where the Central Aceh District Government would plan for development into a business area by facilitating investors and business actors, thus creating more jobs.

In the Lintang and Wariji Road areas there are strategic assets belonging to the Central Aceh District Government. The asset is the land of the Ex-Aceh Central Takengon Bus Terminal with proof of ownership of the Right to Use Certificate No.5.

Based on observations in the field, if in the management there are 4 (four) cleaning staff and 5 (five) employees who carry out maintenance and management of the Ex-Takengon Bus Terminal, maintenance and management personnel become cash outflows on the income of the asset, and if Wages The Central Aceh Regional Minimum (UMR) of Rp. 1,800,000 (one million eight hundred thousand rupiahs), after deducting the cash inflow, the regional income from these assets is negative, so if viewed from a strategic location and land area which is still largely unused, the Ex-Terminal assets have not provided significant benefits to regional revenues.

The Ex-Takengon Bus Terminal in Central Aceh Regency, located at the Lintang and Wariji Road intersections, has an area of 5,902 M2 with the status of land certificate being the right to use the Central Aceh Regency Government with certificate number No.5, generally square in which the water utility network, electricity, telephone and water lines pass through this area, so there are no problems with the utility aspect. This land is located in the center of business in the Takengon Urban District of Central Aceh, its achievement is relatively easy and the surrounding environment supports economic activities.

The use of Highest and Best Use Analysis is not only determined by the subjective analysis of the owner, developer, or appraiser, but is more determined and shaped by the competitive strength and market where the property is located, therefore the analysis and interpretation of Highest and Best Use is by conducting economic studies and financial analysis on property subjects.

By using the Highest and Best Use analysis, it is hoped that other alternative uses can be obtained that can provide maximum economic value rather than selling vacant land, moreover allowing the land to become unproductive. To produce optimal economic value, the vacant land should be built on top of it so that it provides the best benefits and value. In this regard, the concern in this study is how to use the ex-Takengon Bus Terminal area of Central Aceh Regency as a property proposal that has the highest and best benefits for the Central Aceh District Government.

Novak (1996) states that market studies and feasibility studies of property investment need to consider the opinions of the developers, property consultants, other relevant government parties. Opinions from these parties are very much needed to dig deeper into what alternative uses of property are possible to be developed in the area of the Ex-Aceh Central Takengon Bus Terminal.

Based on the phenomenon as explained that the use of regional assets in the form of land Ex-Takengon Bus Terminal Central Aceh Regency with an area of 5,902 M2 with a very strategic location in the center of economic activity in Central Aceh Regency, but has not provided maximum economic value for Central Aceh District PAD, it is necessary conducted research and formulation of the best use of the land to find out properties that provide maximum economic value to be compiled

## **II. Theoretical Review**

### **2.1 Property**

According to Kotler (2008) Property is intangible ownership rights whether in the form of real objects (real estate) or financial (shares and bonds). Property is all buildings that exist on the surface of the earth that soar into space that are permanently inherent both naturally and through human intervention.

Indonesian Appraisal Standards Property is a legal concept that includes the interests, rights and benefits relating to an ownership. Property consists of ownership rights, which give rights to the owner for a specific interest (specific interest) or a number of interests for what he has.

### **2.2 Highest and Best Use**

There are many definitions of the Highest and Best Use, in the assessment literature, according to Grissom (1983) quoting from The Society of Residential, the highest and best definition is a concept of valuation that can be applied to land or buildings that are usually interpreted as land use that will maximize owner's wealth through the use of the most profitable land. The concept of Highest and Best Use is also applied to a property that is built that has the remaining economic life, in this context the highest and best use can refer to the use of the existing property that is most beneficial for the owner.

Hargreaves (1990) distinguishes between the highest and best use definitions according to classical and modern concepts. The classic concept is based on the free market approach proposed by economist Adam Smith that the highest and best use is a use that is used and planned for future use of a land that produces the highest value. Whereas according to the modern concept based on the definition of The Appraisal of Real Estate the highest and best use is the most rational use and possibly those that support the highest present value at the date of assessment, or the use of several rational and legal uses, physically possible, supported by financial feasibility and producing the highest land value.

### **2.3 Assessment Approach**

According to Fanning (2005), to carry out the Highest and Best Use analysis used the analysis tool as follows:

#### **a. Market Data Approach**

(Hidayati and Hardjanto, 2003) say this approach is done by comparing properties that will be assessed with other similar properties whose selling value is already known. Availability of buying and selling data or fair rental prices, and further adjustments are made. This adjustment includes adjusting time, physical condition, location and data source. To evaluate the market data method, the procedure that must be carried out by the appraiser is that the assessor must conduct market research on information regarding sales transactions that occur, registration and offer or demand for property similar to the property to be assessed, including characteristics of property type, size, property conditions physically, location and zoning. Verify information by confirming that the data obtained is accurate and the transaction reflects a reasonable transaction between Willing Seller and Willing Buyer, reflecting market conditions. Verification will bring additional information about the market.

#### **b. Cost Approach**

The assessor estimates the value by comparing the costs needed to build new properties to replace existing properties. This approach is based on the amount of costs incurred to make or construct new major components, building materials and facilities. The value of building properties is obtained from the multiplication of the building area with the construction cost per square meter. The property value of the sum of land values and the value of buildings obtained from the construction or new construction is reduced by depreciation. To obtain a complete estimate of building costs, the assessment must consider direct costs and indirect costs. Direct costs include material costs, labor and developer benefits needed to build new on the date of the study. Indirect costs are costs not included in direct construction costs, including tax costs during construction, professional fees such as architects, appraisers, legal experts and others.

#### **c. Income Approach**

This approach is also called the investment approach, is one approach that can be used in valuing property that produces. Property value is a function of the net income generated by the property with a net income capitalization rate obtained from the reduction in income earned with all costs incurred (Amin, 2015).

### **2.4 The Treshold Testing and Grid Rating Theory**

Threshold testing method or sensory test is one method for panelist testing in determining sensitivity. This method is used to measure, analyze, and interpret responses to a product based on what is captured by the human senses, such as vision, smell, taste, touch, and hearing.

Rating Grid is a scale used in non-test instruments with a structured procedure for obtaining information about a problem and expressed as a certain position in relation to another. Multi-level scale consists of two parts, namely: a statement about the quality of the existence of something and instructions for collecting data about the statement.

## **III. Materials and Method**

### **3.1 Research Models and Concepts**

This research uses the concept of Highest and Best Use (HBU) to determine what type of commercial property is the most optimum on the object research land by analyzing the physical aspects, legal aspects, financial aspects and maximum aspects of productivity.

The type of research conducted is quantitative research where phenomena can be classified as relatively constant, concrete, observable, measurable and causal symptoms. The hypothesis is tested through data collection. The data collected was analyzed using statistics and econometrics so that it could be concluded that the formulated hypothesis was proven or not (Sugiyono, 2012).

### **3.2 Location and Time of Research**

The land on the object of this research is a plot of land with 36 (thirty six) permanent kiosk buildings above it which is located between the Lintang Road and Takengon Urban Wariji Road in Central Aceh Regency with a land area of 5,902 M<sup>2</sup>, Number No.5 Rights Certificate where the land is Ex- The Central Aceh Takengon Bus Terminal. This research is planned to take ± 3 (three) months starting in October 2016.

### **3.3 Data Analysis**

Data obtained from various sources were then carried out by HBU analysis by conducting a review of the physical, legal, financial, and maximum productivity aspects in order to obtain the optimum type of commercial property that could be built on the land. From the classification of data in analyzing the highest and best use can be grouped in 2 (two) analyzes, namely, preliminary productivity analysis and capital budgeting analysis.

## **IV. Results and Discussion**

### **4.1 Analysis of Property Productivity**

Based on testing, the highest and best temporary use is for hotels and market centers with a total score of 23, then rental shophouses with a total score of 22, city parks and food courts with a score of 22 and inner city terminals with a total score of 16. Thus the results of testing with The grid rating indicates that the use of hotels, market centers and rental shophouses is the most likely. Thus the use as a hotel, market center and rental shop can be continued for market analysis and financial analysis.

### **4.2 Market Analysis**

The average occupancy rate of each room is 82 percent for standard type rooms, 75 percent for superior type rooms and 61 percent for deluxe type rooms.

The categorization of hotel types is still limited to the assessment of the Central Aceh District Tourism and Culture Office. However, with an area of valuation covering an area of 5,902 M<sup>2</sup> it is very feasible to be a 3 star hotel, so for this study the assumed cost is for 3 star hotels, and the income assumption is based on a reference of 5 (five) research hotels.

### **4.3 Financial Analysis or Capital Budgeting**

#### **a. Land Assessment Analysis**

Based on the environmental situation around the assets, it is a shopping area, so it is assumed that the research land will be built for shops to be sold. From the results of observations in the field, there are data on shop houses on the road in the market or secondary roads with smaller road widths, which are 10 meters compared to main roads such as cross roads or lagging roads in front of assets that have 16 meters of road width, with bid prices Rp.700,000,000 (seven hundred million rupiahs), building area of comparative data 170 M<sup>2</sup> and land area of 100 M<sup>2</sup>. for the second data as a reference in the income approach through the land development analysis method, the transaction price on the main road is IDR 1,200,000,000 (one billion two hundred million rupiah) with a land area of 100 M<sup>2</sup> and a building area of 180 M<sup>2</sup>.

#### **b. Building Assessment Analysis**

The cost of building a hotel with a total of 121 rooms is IDR 48,506,588,000 (forty eight billion five hundred six million five hundred eighty eight thousand rupiahs).

If the market value of the land is Rp.12,509,100,000 (twelve billion five hundred nine million one hundred thousand rupiahs), the property value (investment) for the choice of hotel use is Rp.61,015,688,000 (sixty one billion fifteen million six hundred eighty eight thousand rupiah).

#### **c. Revenue Assessment Analysis**

From the results of the calculation of the proposed use as a hotel, obtained:

1. Net Present Value (NPV) which is the cumulative sum of the present value is indicated at Rp. 51,753,000,000 (fifty one billion seven hundred fifty three million rupiah).
2. Internal Rate of Return (IRR), which is an interest rate that describes the present value of revenues and expenditures, which is indicated to be 13.5%.
3. The Payback Period that describes the time needed to cover all initial capital indicated for 6 years 1 month.
4. Benefit Cost Ratio (BCR) which is the ratio between the present value of net cash flow and the value of investment excluding the indicated land value of 1.07.

## **V. Conclusion and Suggestion**

### **Conclusion**

1. Property productivity analysis that tests the feasibility of regulations and regulations, as well as the physical and location of land with threshold testing using rating grids indicates a possible alternative use in Central Aceh District Government land use of hotels with a total score of 23, market use with a total score 23, and use as a rental shophouse with a total score of 22.

2. Indications of the market value of the land of the Eks-Takengon Bus Terminal through the land development analysis method are Rp.12,509,100,000 (twelve billion nine hundred nine million one hundred thousand rupiahs).
3. Taking into account that this project is funded by the government budget which must consider the socio-economic impact on the wider community, the analysis of the income approach assessment with cash flow calculations (discounted cash flow) for the most feasible use is the center of the market by generating the Net Present Value (NPV) of Rp.54,949,000,000 (fifty-four billion nine hundred forty nine million), Internal Rate of Return (IRR) of 21.5%, Payback Period of 5 years and 2 months and Benefit Cost Ratio (BCR) of 2.11%

### **Suggestion**

1. Analysis of the highest and best use of the land of the Ex-Takengon Bus Terminal, which is located in the junction between Jalan Sengeda, Jalan Lintang and Jalan Wariji, with a land area of 5,902 M<sup>2</sup> carried out at the time of research and if it will be used in the future as a model property use must be reassessed, because the value can change every time (time value of money).
2. The use of the highest and best use analysis so that it can be a model for determining property development in vacant land, or land that is not optimal in providing income for general actors.
3. For regional governments in setting development policies that provide regional income, so that each regional expenditure used can be effective and the targets achieved are measurable, the use of the highest and best use analysis can be a method of analysis that can be done.
4. The impact of a development is the disruption of the environmental ecosystem. To minimize this impact would be if the results of this study were carried out so that it was included in the list of Strategic Environmental Studies (KLHS) in government development plan documents, as mandated by Law Number 32 Year 2009 of the Republic of Indonesia concerning Environmental Protection and Management.

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