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Analysis of Investment in Istana Ababil Babat Lamongan Housing Using the BCR Method

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ABSTRACT

This study analyzed the financial feasibility of the Istana Ababil Babat housing project using the benefit-cost ratio (BCR) method. The project data included total construction costs, land acquisition costs, housing sales revenue, and maintenance expenditures. The analysis revealed a BCR value of 1.09, indicating that for every 1 Rupiah spent on development, 1.09 Rupiah of benefits are generated. This result suggests that the project is financially viable and provides positive returns. The findings highlight the efficiency of the project in terms of cost allocation and potential profitability. The study concludes that the housing project offers a favorable economic outcome and could serve as a reference for similar future developments.

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I. Introduction

Population growth in Indonesia has a significant impact on various sectors, including basic human needs such as food, clothing, and shelter. Housing, as one of these primary needs, has become an important commodity with increasing demand as the population grows. This situation results in a more limited supply of houses, while demand continues to rise. In response to these needs, housing development is being increasingly intensified, both by individuals independently and by private companies on a commercial scale. [1].

In addition to meeting primary needs, houses have evolved into attractive investment objects. Investment in the housing sector has promising prospects because property values tend to increase annually [2]. Compared to other investment instruments, such as gold or currency, real estate offers a lower risk. Some property developers now provide insurance facilities to attract investors, making this investment increasingly popular, including for the long term [3].

Property developers are competing to offer various benefits to attract buyers, such as easy payment options through credit facilities and subsidized prices. One of the housing developments currently growing in Lamongan Regency is Istana Ababil Babat. This housing complex is located in a strategic area, namely Kebet Village, Babat District, which is approximately 10 minutes away from public facilities such as schools,

markets, and the town square. The development of this housing project was initiated by PT Ababil Group, which is committed to providing decent, comfortable, and affordable housing.

However, to ensure the feasibility of the investment, a thorough analysis using investment evaluation methods is required. One commonly used method is the benefit cost ratio (BCR), which compares the benefits with the costs of the investment [4], [5]. According to Giatman (2006) [6], the BCR method not only evaluates financial gains, but also takes into account non-financial benefits that support investment decisions. The results of calculations using the BCR method provide important information regarding the feasibility of an investment, with the criterion of BCR ≥ 1 indicating that the investment is feasible [7].

Based on these considerations, this study aims to analyze the investment feasibility of Istana Ababil Babat Housing using the BCR method. This research is expected to provide relevant recommendations to minimize the risk of loss and maximize the developer's profit.

II. Metode Penelitian

This study aims to analyze the investment feasibility of Istana Ababil Babat Housing using the Benefit Cost Ratio (BCR) method [5]. The research approach used is descriptive quantitative, focusing on the collection, processing, and analysis of data related to project income and expenditure. The following are the stages in the research:

1. **Data Collection**
   The data used in this study consists of:
   - **Data Primer:** This data was obtained through direct observation at the housing site to understand the physical condition of the project, the surrounding environment, and the supporting facilities.
   - **Secondary Data**: This data includes project financial reports, construction expenditure documents, as well as information on projected income from housing unit sales. Secondary data sources include internal company documents, marketing reports, and official publications.

2. **Data Analysis**
   The analysis is conducted using the Benefit Cost Ratio (BCR) method, which is used to evaluate the relationship between the benefits and costs in this investment project. The formula used is [8]:

$$BCR = \frac{\Sigma\, Benefit}{\Sigma\, Cost}$$

Where:
- **Benefit** includes the total revenue generated from the sale of housing units.
- **Cost** includes the total expenses incurred, including construction costs, operational costs, and other expenses.

The BCR assessment criteria are:
- **BCR ≥ 1**: The investment is declared feasible.
- **BCR < 1**: The investment is deemed unfeasible.

3. **Calculation Procedure**
   a. Identifying all cost components, such as land costs, construction, administration, and marketing.
   b. Estimating all the benefits gained from the sale of housing units during a certain period.
   c. Calculating the BCR value based on the comparison between total benefits and total costs.

4. **Interpretation of Results**
   The results of the BCR calculation will be interpreted to determine the feasibility of the investment. If the BCR value is ≥ 1, the project is deemed feasible to proceed. Conversely, if the BCR value is < 1, the project is considered unfeasible and requires further evaluation to reduce the risk of losses.

5. **Validation and Verification**
   The results of the analysis will be validated by comparing the research data with reference data from similar projects that have been successfully implemented. In addition, consultations with property and financial experts are conducted to verify the analysis results.

This research method is expected to provide a comprehensive evaluation of the feasibility of the Istana Ababil Babat Housing investment, so that it can serve as a reference for developers in making strategic decisions.

III. Results and Discussion

The results of this research aim to provide a comprehensive overview of the financial and technical aspects involved in the development of Istana Ababil Babat Housing. The data presented includes detailed information on construction costs, land and building areas, cost of goods sold, sales revenue, and project expenditures during the implementation period. Analysis of this data offers a deep understanding of resource allocation efficiency, potential income, and project sustainability within the context of medium-scale housing development. These findings are expected to serve as a reference for developers in formulating more effective project management strategies.

Table 1. Total Construction Cost of Istana Ababil Babat Housing

No	Description	Amount
1.	Housing Development Costs	Rp 4,690,176,000
2.	Land Acquisition Cost	Rp 4,746,273,317
Total Cost		Rp 9,436,449,317

Table 1 explains the breakdown of the total costs required for the construction of the Istana Ababil Babat Housing Complex. These costs consist of two main components: housing construction costs and land acquisition costs. The housing construction costs, which include building construction and supporting infrastructure, amount to Rp 4,690,176,000. Meanwhile, the land acquisition costs, used for purchasing the land, reach Rp 4,746,273,317. Therefore, the total overall costs required for this development project amount to Rp 9,436,449,317.

Table 2. Land Area and House Building

No	Description	Size	Amount	Area (m2)
1.	Land area of Housing 30/60	60	62	3720
2.	Building Area of T 30/60 Housing	30	62	1860

Table 2 presents the land area and building size of the houses in this project. The 30/60 type housing has a land area of 60 m² per unit with a total of 62 units, resulting in a total land area of 3,720 m². The building area per unit is 30 m², producing a total building area of 1,860 m² for all housing units. This data illustrates the scale of the project and the ratio between land area and building size.

Table 3. Cost of Goods Sold for Housing Units

No	Description	Total	HPP/Unit	Total Construction Costs

1.	Perumahan T 30/60	62	Rp 152.200.795	Rp 9.436.449.317

Table 3 details the cost of goods sold (COGS) for housing units of type 30/60. The total construction cost of Rp 9,436,449,317 is divided by the number of housing units, which is 62, resulting in a COGS of Rp 152,200,795 per unit. This figure reflects cost efficiency in project implementation and serves as the basis for determining the selling price.

Table 4. Housing Sales Revenue

No	T 30/60 Housing	2023	2024	Amount
1	Sales (Unit)	2	60	62
2	Sales Revenue	Rp 332,000,000	Rp 9,960,000,000	Rp 10,292,000,000

Table 4 illustrates the revenue from housing unit sales based on projections for 2023 and 2024. In 2023, 2 units were sold with a revenue of Rp 332,000,000. Meanwhile, in 2024, 60 units are planned to be sold with a total revenue of Rp 9,960,000,000. Overall, the total sales revenue from all housing units amounts to Rp 10,292,000,000, indicating significant profit potential for the developer.

Table 5. Expenditures

No	Expenditure	2023	2024	Total
1	T 30/60 Housing (Unit)	2	60	62
2	Construction Costs	Rp 304,401,591	Rp 9,132,047,726	Rp 9,436,449,317
3	Maintenance Costs	Rp 200,000	Rp 6,000,000	Rp 6,200,000
Total		Rp 304,601,591	Rp 9,138,047,726	Rp 9,442,649,317

Table 5 contains data on project expenditures, including construction and maintenance costs. The construction costs amounted to Rp 9,436,449,317, completed over two years: Rp 304,401,591 in 2023 and Rp 9,132,047,726 in 2024. Maintenance costs were recorded at Rp 200,000 in 2023 and Rp 6,000,000 in 2024, bringing the total maintenance expenditure to Rp 6,200,000. The total overall project expenditure over the two years is Rp 9,442,649,317. This data provides a comprehensive overview of cost allocation and project management efficiency.

The Benefit-Cost Ratio (BCR) method is used to measure the efficiency of a project by comparing the benefits (revenue) generated with the costs incurred. The BCR formula can be calculated using the following equation:

$$BCR = \frac{\Sigma\, Benefit}{\Sigma\, Cost}$$

For the BCR calculation, we will use the available data, namely the revenue from housing sales as the benefit and the total construction cost as the cost. From the data and analysis above, the Total Benefit (Sales Revenue) is Rp 10,292,000,000 (total revenue from housing sales in 2023 and 2024), while the Total Cost is Rp 9,436,449,317 (total cost of housing construction).

For the BCR calculation, the following formula is applied:

$$BCR = \frac{10{,}292{,}000{,}000}{9{,}436{,}449{,}317} = 1{,}09$$

From the BCR calculation, a value of 1.09 is obtained, which means that for every Rp 1 spent on housing development costs, a benefit of Rp 1.09 is generated. A BCR value greater than 1 indicates that this project has a positive rate of return and is financially efficient, where the benefits gained are greater than the costs incurred.

IV. Conclusion

Based on the analysis of data from the Istana Ababil Babat Housing Development project, it can be concluded that this project shows strong profit potential. Using the Benefit-Cost Ratio (BCR) method, a ratio of 1.09 was obtained, indicating that every expense incurred yields greater benefits. This demonstrates the financial efficiency of the project, where total housing sales revenue exceeds the total construction costs. Overall, the project has a positive outlook in terms of investment returns and the sustainability of housing development.

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