

AN INVESTMENT FEASIBILITY ANALYSIS FOR THE DEVELOPMENT OF HOTEL X IN MATARAM

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ABSTRACT

The objective of this research is to analyze investment feasibility in the development of Hotel X in Mataram using three scenarios: base case, weak case, and best case. The method of analysis covers the calculation of Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and Profitability Index, as well as sensitivity analyses on investment value changes and WACC on NPV and IRR. The analysis results for the base case scenario indicate that this investment is feasible with the NPV of IDR 15,400,833 thousand, the IRR of 14.2%, payback period of ten years, and the profitability index of 1.6; which are considered as not feasible. In the weak case scenario, the NPV is negative at IDR 1,815,997 thousand with the IRR of 11.58%, payback period of twelve years, and profitability index of 1.6, which is also not feasible. For the best-case scenario, the NPV reaches IDR 35,301,509 thousand with the IRR of 16.86%, the payback period of nine years, and the profitability index of 1.4, which shows significant earnings potentials. He sensitivity analyses indicate that the investment value changes and WACC have significant impacts on NPV and IRR. Further, the results of the sensitivity analyses on the three scenarios demonstrate that the investment feasibility in the development project of Hotel X in Mataram is highly dependent on the investment value and WACC. The sensitivities indicate that this project has a strong potential to succeed under normal or optimal economic conditions and capital costs, but risks may appear if the conditions get worse. In general, based on the financial and sensitivity analyses, the development project of Hotel X in Mataram is feasible in several scenarios.

Keywords: investment, feasibility, hotel

INTRODUCTION

The city of Mataram, as one of Indonesia's tourism hubs, has experienced significant development in recent years. This development has not only focused on the tourism sector but has also involved the infrastructure sector as one of the key drivers of growth. This phenomenon further strengthens the city's strategic role in the investment landscape, particularly in the development of the hospitality sector. Indicators of tourism activity in West Nusa Tenggara (NTB) are reflected in the number of overnight guests at star-rated hotels, which has seen significant growth—an average increase of 222.75% from 2020 to 2022. Post-pandemic, a recovery process is evident in NTB's tourism industry, marked by a surge in both foreign and domestic tourist visits.

Tourism growth in Mataram City has become a major draw for investment in the hospitality sector. As one of Lombok Island's tourism hubs, Mataram City demonstrates significant growth potential, with the Mandalika Special Economic Zone (SEZ) serving as its primary attraction. The relatively short travel time (about one hour) from Mataram to the Mandalika SEZ indicates that there is significant opportunity to develop accommodation facilities, particularly hotels, to meet the needs of visiting tourists. In 2022, the number of

hotels in Mataram accounted for 33% of the total hotels in NTB Province, signaling a very large market potential.

PT N is a leading entity in Indonesia's construction industry, focusing on General Contracting, EPC (Engineering, Procurement, and Construction), and investment. Through the Annual General Meeting of Shareholders (AGM) to discuss the Annual Work Plan (AWP), PT N initiated the investment for the construction of Hotel X Mataram. The primary objectives are to support tourism growth in the Mataram area, improve accessibility to the Mandalika Special Economic Zone (KEK), and contribute to local economic development. However, any investment decision involving massive capital expenditures requires a comprehensive business feasibility study. Based on this, this study aims to conduct a feasibility analysis of the investment in the construction of Hotel X Mataram using capital budgeting methods and sensitivity analysis to ensure that the investment provides value added to shareholders.

METHODS

The research approach used in this study is a qualitative case study method with a descriptive research design and quantitative analysis. The research was conducted at the Hotel X project site in Mataram City. Cash flow projections were made for a 20-year period, beginning in the year the hotel begins operations (assumed to be 2026) and ending in 2045. The primary data sources came from PT N's internal management in the form of a Cost Budget Plan (RAB), funding assumptions, and secondary data in the form of benchmarking of occupancy rates and rates for similar hotels in the Mataram area.

The analysis focuses on three main scenarios: (1) Base Case: A realistic assumption in which market conditions are stable, with revenue growth of 4% per year and an occupancy rate in line with projections. (2) Weak Case: A pessimistic assumption in which market conditions are less favorable, revenue growth is only 3% per year, and occupancy is lower than expected. (3) Best Case: An optimistic assumption with highly favorable market conditions, 5% annual revenue growth, and maximum occupancy rates. The feasibility analysis used the following investment criteria: $NPV > 0$ (feasible), $IRR > WACC$ (feasible), a payback period not exceeding the project's lifespan or industry standards (10 years), and $PI > 1$ (feasible). Next, a sensitivity analysis is applied to changes in the investment value and the WACC percentage.

RESULTS AND DISCUSSION

The Hotel X construction project is planned to be located on Majapahit Street in Mataram on a plot of land measuring approximately 7,439 m². This location is considered highly strategic because it is close to the government center and public facilities (Mataram University Hospital, Lombok Epicentrum Mall), and is about a 40- to 50-minute drive from Lombok International Airport (LOP). Hotel X is designed as a 3+ (or 4)-star hotel with a capacity of 131 rooms, consisting of 117 Superior rooms, 8 Deluxe rooms, 5 Suites, and 1 Executive Suite. The hotel will also be equipped with a convention center, ballroom, meeting rooms, a restaurant, and commercial spaces.

Financial Assumptions and Capital Structure

The total estimated budget (RAB) for the construction of Hotel X Mataram, or Capital Expenditure (Capex), is projected to reach Rp 154,623,176,000. These costs are allocated to physical construction (67.6%), land costs (24.9%), procurement of Furniture, Fixtures, and Equipment (FFE) (6.1%), and pre-operational expenses (1.4%). The project's capital structure is planned to use a gearing ratio of 55% for debt and 45% for equity. Funding from bank loans

is estimated at Rp 85,042,747,000 with an interest rate of 11.75% per year. Meanwhile, PT N's own capital (equity) amounts to Rp 69,580,429,000. Using the Capital Asset Pricing Model (CAPM) with a risk-free rate of 7.21%, an industry beta of 1.08, and a market return of 14.58%, the cost of equity (K_e) is calculated at 15.18%. Assuming a corporate tax rate of 22%, the resulting Weighted Average Cost of Capital (WACC) is 11.87%.

Feasibility Analysis Results: Base Case Scenario

In the base case scenario (a realistic baseline scenario), revenue growth is projected at 4% per year with a room occupancy rate ranging from 56% to 73%. Based on cash flow projections over 20 years of operation, the project generates a positive Net Present Value (NPV) of Rp 15,400,883,000. The Internal Rate of Return (IRR) is recorded at 14.20%, which is higher than the discount rate (WACC) of 11.87%. The Payback Period (PP) indicates a 10-year payback period, and the Profitability Index (PI) stands at 1.4. Based on all these financial evaluation criteria, the Hotel X construction project under the base case scenario is deemed financially FEASIBLE.

Feasibility Analysis Results: Weak Case Scenario

The weak case scenario simulates conditions where revenue growth reaches only 3% with an occupancy rate falling to the range of 49%–66%. Under this pessimistic scenario, the NPV drops to a negative value (Rp -1,815,997,000). The Internal Rate of Return (IRR) falls to 11.58%, which is slightly below the WACC threshold (11.87%). The payback period extends to 12 years, although the PI remains at 1.6 according to the transcript (even though, theoretically, a negative NPV generally results in a $PI < 1$, the analysis based on the source documents notes this). Since the key indicators—namely, the NPV, which is negative, and the IRR, which is lower than the average cost of capital—the project in the weak-case scenario is classified as NOT FEASIBLE.

Feasibility Analysis Results: Best-Case Scenario

In the best-case scenario simulation, where the marketing strategy is assumed to perform optimally with a 5% annual revenue growth surge and an occupancy rate of 63%–80%, the project generates a highly significant NPV of Rp 35,301,509,000. The IRR rises sharply to 16.86%, far exceeding the established WACC. The payback period is shorter at 9 years, with a Profitability Index of 1.4. This indicates that under highly favorable macroeconomic and tourism conditions, this project will generate an exceptionally high potential upside and is HIGHLY FEASIBLE to implement.

Criteria	Base Case	Weak Case	Best Case	Eligibility Standards
NPV	Rp 15.400.883 ribu	(Rp 1.815.997 ribu)	Rp 35.301.509 ribu	> 0
IRR	14,20%	11,58%	16,86%	$> \text{WACC}$ (11,87%)
Payback Period	10 Years	12 Years	9 Years	$< \text{Project Duration}$
Feasibility	Appropriate	Unacceptable	Appropriate	-

Sensitivity Analysis and Socioeconomic Impact

The project's sensitivity was tested by varying the Capital Expenditure (Capex) and the WACC rate. The results of the sensitivity analysis confirm that the financial feasibility of Hotel X is highly sensitive to increases in initial investment costs and fluctuations in interest rates

that affect the WACC. For example, in the Base Case, if the investment value increases from Rp 154.6 billion to Rp 171.1 billion (with WACC remaining constant), the NPV will plummet to just Rp 2.3 billion (IRR 13.38%). Conversely, investment efficiency of up to Rp 132.6 billion would boost the NPV to Rp 38.7 billion. A 1.5% increase in the WACC (to 13.37%) for the standard investment would also immediately reduce the NPV to Rp 2.3 billion.

From a socioeconomic perspective, the Hotel X project is expected to generate significant positive externalities. Both the construction and operational phases are estimated to employ approximately 118 local workers. The presence of this star-rated accommodation will support the Mandalika Special Economic Zone's tourism ecosystem, drive tourist spending (multiplier effect) at local restaurants and Micro, Small, and Medium Enterprises (MSMEs), and contribute to Property Tax (PBB) and local government revenue (PAD) for the Mataram City Government.

CONCLUSIONS

Based on the investment feasibility analysis for the construction of Hotel X in Mataram, it can be concluded that this investment project is feasible under both the base case (normal conditions) and best-case (optimistic conditions) scenarios. In the base case, the project generates an NPV of Rp 15,400,883 thousand with an IRR of 14.2% (exceeding the WACC of 11.87%) and a payback period of 10 years. In the best-case scenario, these parameters increase to an NPV of Rp 35,301,509 thousand and an IRR of 16.86%, with a payback period of 9 years. The weak-case scenario (pessimistic conditions) indicates that the project is not viable due to a negative NPV of Rp 1,815,997 thousand. The viability of this project is highly sensitive to the investment value (Capex) and the cost of capital structure (WACC).

As a managerial recommendation, PT N must establish a strict project cost control mechanism to prevent initial investment cost overruns that could drastically erode the Net Present Value. In addition, aggressive operational and marketing strategies need to be intensified to ensure that occupancy and room rate growth targets are met, primarily by capitalizing on the momentum of the Mandalika Special Economic Zone's development. PT N is also advised to establish strategic relationships with local government to position Hotel X as a partner in accelerating tourism infrastructure development, including the potential for Public-Private Partnership (PPP) schemes.

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