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# FEASIBILITY STUDY HAKMAZ TABA SYARIAH HOTEL COOPERATE WITH PT **GRAHAWITA SANTIKA**

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Abstract. Hakmaz Taba Syariah Hotel is one of the hotels in Lubuklinggau who participate actively welcome the tourists who come to Lubuklinggau.Hakmaz Taba Syariah Hotel located at Jl. Yos Sudarso No 28 Lubuklinggau, South Sumatera, Indonesia. The hotel established since 1997. Hakmaz Taba Syariah Hotel is a hotel with the nuances of Islamic, elegant minimalist decor blends with local culture. The hotel has 48 rooms with facilities such as restaurant, cafe, swimming pool, children play ground, outdoor garden party, ballroom, ATM Center, and meeting room. There are a couple of things and the perceived problems that need to be repaired. Some of the problems being experienced are owner does not have experience in the hospitality sector, cause the hotel is not well controlled, the financial statements hotel is not recorded properly while already using the system / software, the marketing activity is not running, and the human resources are difficult to find in South Sumatra. Lubuklinggau have an interesting developments, competitors can lead to decreased number of occupancy of Hakmaz Taba Syariah Hotel. Because of it, the owners had approached and meetings with some of the operators of the hotel management, which are Starwoods Hotels, Swiss-Belhotel, Accor, Tauzia, Santika, and Dafam. The results of the meeting with the hotel management operator and conclusions given by the hotel owners indicate a match with PT Grahawita Santika (GWS). All problem identification in this paper will be solved using economical feasibility study. A business feasibility study can be defined as a controlled process for identifying problems and opportunities, determining objectives, describing situations, defining successful outcomes, and assesing the range of costs and benefits associated with several alternatives for solving a problem. This study is used to support the decision-making process based on a cost benefit analysis of the actual business or project viability. It should help the company to find out does this invesment is the correct decision to do. The author will take the approach of the financial feasibility of using several methods such as NPV and IRR calculation, assisted by a brief explanation of market feasibility and legal feasibility The theoritical framework of this final assignment is based on various source which are text books, internet data and secondary data that collected from the company. Those source are used to find some supportive theories, information, and data to accomplish this final project. Formula that could be supportive for this final project are Net Present Value (NPV), Internal Rate of Return (IRR), Weighted Average Cost of Capital (WACC), and other formulas that related to financial feasibility. After analyzing the initial investment, income statement, statement of cash flow of the project, Author finally meet the conclusion that the project is not feasible to do. The project stated not feasible because the Net Present Value of the project is negative, Payback Period occur in the 9<sup>th</sup> year, and the Internal Rate of Return are lower than the discount rate which is Weighted Average Cost of Capital. If the owners still have the desire to run the project, there are some things that need to be calculated.

Keywords : Financial, Hotel, Investment, Tourism, Lubuklinggau, Indonesia, Feasibility

#### Introduction

It is important that the tourism industry of Indonesia enhances its contribution towards the country's gross domestic product (GDP) because it will trigger more foreign exchange earnings and providing employment opportunities to the Indonesian people. Currently, Indonesia's tourism sector accounts for approximately four percent of the total economy. By 2019, the Indonesian government wants to have doubled this figure to 8 percent of GDP, an ambitious target (possibly overly

ambitious) that implies that within the next four years, the number of visitors needs to double to about 20 million. In order to achieve this target, the government will focus on improving Indonesia's infrastructure (including ICT infrastructure), accessibility, health & hygiene as well as enhancing online promotional (marketing) campaigns abroad. The government also revised its visa-free access policy in 2015 (for further elaboration, see below) to attract more foreign tourists. (Indonesia Investments 2016).

One important indicator of a country's readiness to accept the presence of tourists is through the availability of hotels, both in quantity and quality. Without the availability of sufficient number of hotels, tourist visits possible will weaken. (Pikiran Rakyat 2015)

The role of hotels in the tourist industry is very important. Hotel as a place that provides the facility to stay greatly helps those tourists who are visiting. Relationships hospitality and tourism industry has a close connection. Hotel is a principal means of tourism (tourism play superstructures), which means that conditions are imposed on the number of visitors who come. If we suppose that the tourism industry as a building, the hospitality sector is the pillar. Lubuklinggau is a city located in South Sumatra, has an area of 40,150 hectares or equal to 400,150,000m<sup>2</sup>. Lubuklinggau has become a geostrategic position with the city center lane crossings linking Sumatra South Sumatra Province to Bengkulu Province on the west side, Lampung Province on the South side and the other regions in the northern part of Sumatra Island. With the convergence of the traffic flow, Lubuklinggau become a transit town or city meetings of the various social, economic and cultural.

There are many forms of public transportation in Lubuklinggau, such as tricycles and *angkot*. Lubuklinggau also have an airports named Silampari Airports. Airports serving several flights to Palembang and Jakarta, and has a railway line connecting Lubuklinggau with Palembang. (Wikipedia 2016)

Over the last five years, the economy of Lubuklinggau increased. It shows the performance of regional development for the better. Lubuklinggau economic growth rate in 2009, 2010 and 2011 was higher compared to South Sumatra province and national. (Website Resmi Pemerintahan Kota Lubuklinggau 2016)

Lubuklinggau economic structure, in accordance with the characteristics of the economy of urban areas /urban, dominated by the tertiary sector, namely the Trade Sector, Transport and Communication Sector, Financial Sector, and Sector Offices. The tertiary sector contributes 62.6 percent of the GDP this area. Secondary Sector (Industry Sector; Sector Electricity, Gas and Water; and the building sector) accounted for 30.3 percent. While the primary sector (Agriculture, Mining and Quarrying) contributed 7.1 percent to the GDP formation Lubuklinggau. In addition Lubuklinggau total investment value is increasing every year. (Website Resmi Pemerintahan Kota Lubuklinggau 2016)

Furthermore, Lubuklinggau as the city is growing in the tourism sector began to tend to visit local and foreign travel. To support service for guests who come to Lubuklinggau, five-star hotel accommodation and other form being developed. Mayor Lubuklinggau South Sumatra, SN Prana Men Sohe said in 2015 has brought seven-star hospitality investors with an investment of hundreds of billions of rupiah (ANTARASUMSEL 2015). The numbers of hotels in Lubuklinggau until 2012 there were 30 units. (Rimanews 2014)

Hakmaz Taba Syariah Hotel is one of the hotels in Lubuklinggau who participate actively welcome the tourists who come to Lubuklinggau. Hakmaz Taba Syariah Hotel located at Jl. Yos Sudarso No 28 Lubuklinggau, South Sumatera, Indonesia. The hotel established since 1997. Based on the business plan, Hakmaz Taba Syariah Hotel is a hotel with the nuances of Islamic, elegant minimalist decor blends with local culture. The hotel has 48 rooms with facilities such as restaurant, cafe,

swimming pool, children play ground, outdoor garden party, ballroom, ATM Center, and meeting room. In the last 3 years occupancy room per year Hakmaz Taba Syariah Hotel increased as presented in Table 1.

	Year					
	2013 2014 2015					
Occupancy	Room	%	Room	%	Room	%
	19	41%	21	45%	23	48%

Table 1 The Occupancy Room per Year Hakmaz Taba Syariah Hotel

Source: Financial Statements Hakmaz Taba Syariah Hotel 2013-2015

However, based on the owner of the hotel, there are a couple of things and the perceived problems that need to be repaired. Some of the problems being experienced are:

- 1. Owner does not have experience in the hospitality sector, cause the hotel is not well controlled
- 2. The financial statements hotel is not recorded properly while already using the system / software
- 3. The marketing activity is not running
- 4. The human resources are difficult to find in South Sumatra
- 5. Lubuklinggau interesting developments, competitors can lead to decreased number of occupancy

Therefore, the owner of the hotel decided to seek professional hotel operator who can organize and direct the hotel in order to have a better performance. There are several well-known hotel management operator in Indonesia some of which are Accor, Aston International, Starwoods Hotels, Intercontinental Hotels Group, Swiss-Belhotel, Tauzia Management, Tune Hotels, Santika Indonesia, Intiwhiz International, Dafam Hotels, etc.

Hakmaz Taba Syariah Hotel owners had approached and meetings with some of the operators of the hotel management, which are Starwoods Hotels, Swiss-Belhotel, Accor, Tauzia, Santika, and Dafam. The results of the meeting with the hotel management operator and conclusions given by the hotel owners indicate a match with PT Grahawita Santika (GWS). The form of cooperation that we have is a "hotel operator" which means:

- 1. Land and cost of construction / renovation entirely from the Investor
- 2. PT GWS assisting investors in the process of planning and pre-opening (Technical Assistance)
- 3. PT GWS appointed Investor to manage hotel operations.
- 4. Timed ties of cooperation, at least 10 years
- 5. GWS does not offer the concept of franchise and equity.

Area of land owned by Hakmaz Taba Syariah Hotel is 10,920m<sup>2</sup>. However, PT Grahawita Santika indicated that the necessary requirements for a hotel that would be in the care only require a land area of 4000m<sup>2</sup>. Therefore, the owners deal with to create a mixed-use building. Developments of Hakmaz Taba Syariah Hotel through a contract with PT GWS require analysis of the project feasibility study beforehand. It is given that these investments require substantial funds and the long period in which the economic situation in the future is full of uncertainty. It may require some careful calculations and analysis, so that the investment made guarantees profitability financially feasible in the future.

# Problem

Based on the introduction above, then the problem can be formulated as follows:

• How is the feasibility of investment projects Hakmaz Taba Syariah Hotel cooperate with PT GWS?

# Problem Solving

All problem identification in this paper will be solved using economical feasibility study. It should help the company to find out does this invesment is the correct decision to do. Therefore the importance of problem solving is:

• To help Hakmaz Taba Syariah Hotel analysis the feasibility study, to decide the investment feasible or not

# Method

The theoritical framework of this paper is based on various source which are:

- 1. Text books
- 2. Internet data
- 3. Secondary data that collected from the company

Those source are used to find some supportive theories, information, and data to accomplish this final project. Formula that could be supportive for this final project are Net Present Value (NPV), Internal Rate of Return (IRR), Weighted Average Cost of Capital (WACC), and other formulas that related to financial feasibility.

The required data are:

- 1. Hotel spesification that is required for this project
- 2. Total investment that will be needed for this project
- 3. The predicted cost and expenses of the invesment
- 4. The future forecast revenue and occupancy of the hotel

Those data can be got from two type of source which are primary data and secondary data. Primary data is data that collected directly using methods such as interview and questionnaies. In this final project, the primary data is obtained by doing some interview to the management of the company. The data is about the expectation and assumption of the management about the invesment. For example, the expected growth of revenue and cost of this investment. Secondary data is existing primary data that was collected by someone else for a purpose other than the current one. The secondary data of this final project is obtained from the company's data. For example, the spesification that is required for the hotel project.

The collected data then will be processed through some steps:

- 1. First thing that will be calculated is the initial investment of this project
- 2. Then the cost and expense of the hotel in the future should be forecasted
- 3. The revenue of this project in the future then will be also forecasted
- 4. After getting all those information above, it can be found wheter the future revenue will be able to cover the initial invesment and the total cost or not
- 5. Then the payback period will be analyzed and also the depreciation will be calculated
- 6. The last is concluding whether this project is feasible or not This project can be declared feasible if:
  - A. Positive Net Present Value
  - B. Have a decent rate of investment.
  - C. The future revenue will be able to cover the initial invesment

If the project is not feasible, some suggestion will be delivered to the company.

# 1. Net Present Value (NPV)

In finance, the net present value (NPV) or net present worth (NPW) is a measurement of the profitability of an undertaking that is calculated by subtracting the present values (PV) of cash outflows (including initial cost) from the present values of cash inflows over a period of time (Kurt 2003). Incoming and outgoing cash flows can also be described as benefit and cost cash flows, respectively.

Time value of money dictates that time affects the value of cash flows. More technically, cash flows of nominal equal value over a time series result in different effective value cash flows that makes future cash flows less valuable over time. If for example there exists a time series of identical cash flows, the cash flow in the present is the most valuable, with each future cash flow becoming less valuable than the previous cash flow. A cash flow today is more valuable than an identical cash flow in the future because a present flow can be invested immediately and begin earning returns, while a future flow cannot.

Net present value (NPV) is determined by calculating the costs (negative cash flows) and benefits (positive cash flows) for each period of an investment. The period is typically one year, but could be measured in quarter-years, half-years or months. After the cash flow for each period is calculated, the present value (PV) of each one is achieved by discounting its future value (see Formula) at a periodic rate of return (the rate of return dictated by the market). NPV is the sum of all the discounted future cash flows. Because of its simplicity, NPV is a useful tool to determine whether a project or investment will result in a net profit or a loss. A positive NPV results in profit, while a negative NPV results in a loss. The NPV measures the excess or shortfall of cash flows, in present value terms, above the cost of funds. In a theoretical situation of unlimited capital budgeting a company should pursue every investment with a positive NPV. However, in practical terms a company's capital constraints limit investments to projects with the highest NPV whose cost cash flows, or initial cash investment, do not exceed the company's capital. NPV is a central tool in discounted cash flow (DCF) analysis and is a standard method for using the time value of money to appraise long-term projects. It is widely used throughout economics, finance, and accounting.

The following is the formula for calculating NPV:

Where  $C_t = \text{net cash inflow during the per}$   $C_o = \text{total initial investment costs}$  r = discount rate, and t = number of time periodsNPV =  $\sum_{t=1}^{T} \frac{C_t}{(1+r)^t} - C_o$ 

A positive net present value indicates that the projected earnings generated by a project or investment (in present dollars) exceeds the anticipated costs (also in present dollars). Generally, an investment with a positive NPV will be a profitable one and one with a negative NPV will result in a net loss. This concept is the basis for the Net Present Value Rule, which dictates that the only investments that should be made are those with positive NPV values.

#### 2. Internal Rate of Return

The internal rate of return on an investment or project is the "annualized effective compounded return rate" or rate of return that makes the net present value of all cash flows (both positive and negative) from a particular investment equal to zero. It can also be defined as the discount rate at which the present value of all future cash flow is equal to the initial investment or, in other words, the rate at which an investment breaks even (Feibel 2003).

Equivalently, the IRR of an investment is the discount rate at which the net present value of costs (negative cash flows) of the investment equals the net present value of the benefits (positive cash flows) of the investment.

To calculate IRR using the formula, one would set NPV equal to zero and solve for the discount rate *r*, which is here the IRR. Because of the nature of the formula, however, IRR cannot be calculated analytically, and must instead be calculated either through trial-and-error or using software programmed to calculate IRR.

Generally speaking, the higher a project's internal rate of return, the more desirable it is to undertake the project. IRR is uniform for investments of varying types and, as such, IRR can be used to rank multiple prospective projects a firm is considering on a relatively even basis. Assuming the costs of investment are equal among the various projects, the project with the highest IRR would probably be considered the best and undertaken first. IRR is sometimes referred to as "economic rate of return" (ERR).

# 3. Payback Period

Payback period in capital budgeting refers to the period of time required to recoup the funds expended in an investment, or to reach the break-even point (Farris, et al. 2010). Starting from investment year by calculating Net Cash Flow for each year:

Net Cash Flow Year 1 = Cash Inflow Year 1 - Cash Outflow Year 1. Then Cumulative Cash Flow = (Net Cash Flow Year 1 + Net Cash Flow Year 2 + Net Cash Flow Year 3, etc.) Accumulate by year until Cumulative Cash Flow is a positive number: that year is the payback year.

Here, the return to the investment consists of reduced operating costs. Although primarily a financial term, the concept of a payback period is occasionally extended to other uses, such as energy payback period (the period of time over which the energy savings of a project equal the amount of energy expended since project inception); these other terms may not be standardized or widely used.

# 4. Sensitivity Analysis

Sensitivity analysis is the study of how the uncertainty in the output of a mathematical model or system (numerical or otherwise) can be apportioned to different sources of uncertainty in its inputs (Cruz dan Perkins 1964). A related practice is uncertainty analysis, which has a greater focus on uncertainty quantification and propagation of uncertainty. Ideally, uncertainty and sensitivity analysis should be run in tandem. The process of recalculating outcomes under alternative assumptions to determine the impact of a variable under sensitivity analysis can be useful for a range of purposes (Fasso 2007)

# Result

# 1. Income Statement

Based on the data that have been obtained author calculate the company's income statement from the stage of construction of the hotel (Year o) until the 15<sup>th</sup> year. The following chart is the result from the forecast for company's income statement in though based on the data that have been obtained.



Figure 1. Net Profit Chart

The year o is to be included in the report because the company is required to pay the bank interest and land rent in the first year. Tax rate used is 25%, based on *Pajak Penghasilan Pasal 25 (PPh Pasal* 25) & *Pajak Penghasilan Pasal 31 (PPh Pasal 31)*. Total Net Profit for 15 years of the project is IDR25,154,795,046 with an average Net Profit IDR 1,909,591,360 (average from 1<sup>st</sup> year until 15<sup>th</sup> year) and had an average gross operating profit of 50% (average from 1<sup>st</sup> year until 15<sup>th</sup> year).

# 2. Cash Flow

Author calculates the company's cash flow from the stage of construction of the hotel (Year o) until the 15<sup>th</sup> year. The following tables are forecast statement of company's cash flow. The Ending Cash Balance on the 15<sup>th</sup> year is IDR40,171,631,249.

# 3. Free Cash Flow

Free cash flow is required to calculate the net present value, internal rate of return and payback period. Below are the tables of the forecast of free cash flow of the project.

Year	0	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>
Free Cash	26.990.750.000	2.084.587.828	2.646.966.936	2,930,940,653	3.200.039.072	2.714.139.817	1,186,224,041	1.907.907.388
Flow (IDR)	=======================================	=100=150710=0	-1-+-1)1))-	-122-19+0192	51=001055101=		-/	
Salvage								
Value (IDR)								
Total Free								
Cash Flow	26,990,750,000	2,084,587,828	2,646,966,936	2,930,940,653	3,200,039,072	2,714,139,817	1,186,224,041	1,907,907,388
(IDR)								
Cumulative								
Free Cash	26,990,750,000	24,906,162,172	22,259,195,236	19,328,254,584	16,128,215,511	13,414,075,695	12,227,851,653	10,319,944,265
Flow (IDR)								

Table 2. Free Cash Flow From Year o until 7<sup>th</sup> Year

Table 3. Free of Cash Flow From 8	<sup>th</sup> Year until 15 <sup>th</sup> Year
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Year	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>	14 <sup>th</sup>	15 <sup>th</sup>
Free Cash Flow (IDR)	4,114,983,968	4,208,635,950	3,253,757,836	1,131,542,142	1,907,563,225	4,686,282,480	4,789,707,722	4,894,980,510
Salvage Value								5.716.820.107
(IDR)								5//-4/059/-0/
Total Free Cash Flow (IDR)	4,114,983,968	4,208,635,950	3,253,757,836	1,131,542,142	1,907,563,225	4,686,282,480	4,789,707,722	10,609,819,617
Cumulative Free Cash Flow (IDR)	6,204,960,297	1,996,324,347	1,257,433,488	2,388,975,630	4,296,538,855	8,982,821,335	13,772,529,057	24,382,348,674

Free cash flow in year o negative because the company has not received income and focus on the development, can be seen in subsequent years, from the second up to the fifteenth, free cash flow showed positive results. In its 10th year, the cumulative free cash flow turned positive, after earlier from year o to year to nine negative. It explains the payback period of the project, which will be discussed in the next section. Salvage Value has value only in the

fifteenth, as described previously, if there are assets that still have value fifteenth year will be input into the salvage value. Cumulative free cash flow at the end of the project amounted to IDR24,382,348,674.

#### 4. Return on Investment (ROI)

To calculate the return on investment of this project, we have to know the total investment and the total net profit of this project. Total investment is already explained in the beginning and the authors have made the income statement, therefore we can know the total net profit from this project for 15 years and the total investment for this project. The table below explains the data being used for calculating the return on investment.

Table 4. Return on Investment	
Total Investment	IDR29,616,679,014
Total Net Profit	IDR28,643,870,398
Return on Investment for Project Lifetime	96.72%
Return on Investment a Year	6.45%

It shows that, with the income earned, return on investment of this project amounted to 6.45% per year.

#### 5. Internal Rate of Return (IRR)

The internal rate of return can be calculated using the cash flow. The discount rate that the author use is 8,989%, therefore, the internal rate of return should be higher that the discount rate.

To facilitate the authors calculate the internal rate of return, the authors use the applications such as Microsoft Excel. Microsoft Excel contains a specific function for calculating IRR, but any calculation is only as good as the data behind it. To determine the IRR of a given project, input all free cash flows and investment cost in adjacent cells.

The internal rate of return of this investment shows a smaller number which is 7.68% than its discount rate. It means that this investment is not a prospective investment and not feasible.

# 6. Net Present Value (NPV)

The net present value of this investment can be calculated using the data provided before. The net present value is related to the investment cost, cash inflow, cash outflow, and interest rate. The table below explains the data being used for calculating the Net Present Value.

lable 5. Net Present value	
Total Free Cash Flow Year o	-26,990,750,000
Total Free Cash Flow 1 <sup>st</sup> Year	2,084,587,828
Total Free Cash Flow 2 <sup>nd</sup> Year	2,646,966,936
Total Free Cash Flow 3 <sup>rd</sup> Year	2,930,940,653
Total Free Cash Flow 4 <sup>th</sup> Year	3,200,039,072
Total Free Cash Flow 5 <sup>th</sup> Year	2,714,139,817
Total Free Cash Flow 6 <sup>th</sup> Year	1,186,224,041
Total Free Cash Flow 7 <sup>th</sup> Year	1,907,907,388
Total Free Cash Flow 8 <sup>th</sup> Year	4,114,983,968
Total Free Cash Flow 9 <sup>th</sup> Year	4,208,635,950
Total Free Cash Flow 10 <sup>th</sup> Year	3,253,757,836
Total Free Cash Flow 11 <sup>th</sup> Year	1,131,542,142
Total Free Cash Flow 12 <sup>th</sup> Year	1,907,563,225
Total Free Cash Flow 13 <sup>th</sup> Year	4,686,282,480
Total Free Cash Flow 14 <sup>th</sup> Year	4,686,282,480
Total Free Cash Flow 15 <sup>th</sup> Year	10,609,819,617
Discount Rate (WACC)	8.989%
Number of time periods	16
Net Present Value using WACC	-2,418,405,757

It shows a negative amount, which means it was not a prospective investment. The conclusion can not be drawn directly from the NPV. There are some aspects that need to be considered such as Internal Rate of Return (IRR) and Payback Period.

# 7. Payback Period

Payback period is used to calculate the required period of time to cover the initial investment of the project. It can be seen in the Cumulative Free Cash Flow. If the cumulative free cash flow has shown a positive amount, it means during that year the company initial investment of the project is already fully covered. At the Table 4.20 Free of Cash Flow From 8<sup>th</sup> Year until 15<sup>th</sup> Year, the cumulative cash flow in 10<sup>th</sup> year has been positive. It means that the payback period will occur during in the 9<sup>th</sup> year or to be exact is 9<sup>th</sup> year and 4<sup>th</sup> month.

# 8. Sensitivity Analysis

After seeing the results of the NPV, IRR, and payback period, the results shows that the project is not feasible. The author will now use a sensitivity analysis to acknowledge the worst case scenario for this project. In businesses, often all the plans which has been arranged does not run according to plan. Sensitivity analysis is useful to anticipate scenarios if the plan is out of track. First, the author determine the variable that looks sensitive to change the net present value. The table below explains the data being used for sensitivity analysis.

Variables	Input for Sensitivity Analysis				
Vallables	Pessimistic	Most Likely	Optimistic		
First Year Room Sold	11680	14600	17520		
First Year Net Room Rate	IDR264,000	IDR330,000	IDR396,000		
Growth Rate of Room Rate	3%	4.0%	5%		
Cost of Goods Sold in First	IDR777,888,000	IDR648,240,000	IDR518,592,000		

#### Table 6. Sensitivity Analysis Variable

Year			
Operating Expense if First			
Year	IDR3,442,099,526	IDR2,868,416,272	IDR2,294,733,018
Inflation	7%	5.6%	4%
WACC	11%	9%	7%

The author uses an add-in in Microsoft Excel through the website of www.decisiontoolworks.com to facilitate data processing. After determining the variables, the author determine the calculation of the pessimistic, most likely, and optimistic scenarios. Calculation will most likely be determined based on the data they have, which some are consisted in the income statement and statement of cash flow. Pessimist scenario calculation is a decrease in performance of 20% from the most likely scenario calculation. After obtaining and processing all the data, the following results are shown.





Judging from the results of the data obtained, three variables that most affect the net present value are Net Room Rate of the first year, WACC, and Growth Rate of Room Rate.

# Monte Carlo

After knowing the variables that affects the net present value most, the variable is used to analyze risk using Monte Carlo methods. The author uses an add-in in Microsoft Excel through www.decisiontoolworks.com to facilitate data processing. The table below explains the data being used for risk analysis.

Variables	Input For Monte Carlo Simulation				
Valiables	Input	Data			
Room	205266	Mean	330393		
Rate	295200	Standard Deviation		38256	
WACC	9.18	Mean	9.012		
		Standard Deviation		1.042	
Crowth	3.27	Mean	3.99		
Growth		Standard Deviation		0.465	
Inflation	6.49	Mean	5.606		
	6.18	Standard Deviation		0.651	

Table 7. Risk Analysis Monte Carlo Variable

After knowing these variables, each variable must have its mean and standard deviation being calculated. After all necessary data have been fulfilled, the data can be analyzed. The results from the analysis are being described in the following figure.



Figure 4. Histogram Risk Analysis

|--|

Mean	-2,280,049,799
Standard Deviation	4,860,634,648
Mean St. Error	62,750,523
Minimum	-17,687,482,249
Median	-2,443,395,603
Maximum	19,286,397,508
Skewness	0.1782

The minimum amounts shows the condition in which the net present value is experiencing the worst performance. In the worst performance, the NPV has the amount of -IDR17,687,249 outcome. Contrary to the maximum, which shows the net present value experience the best performance, the amount is IDR19,286,397,508 outcome.

#### Conclusion

After analyzing the initial investment, income statement, statement of cash flow of the project, Author will finally meet the conclusion that the project is not feasible to do. The project stated not

feasible because the Net Present Value of the project is negative, Payback Period occur in the 9<sup>th</sup> year, and the Internal Rate of Return are lower than the discount rate which is Weighted Average Cost of Capital.

1	Net Present Value		Shows pogative results
	Using WACC	-IDR2,418,405,757	Shows negative results.
2	Internal Rate of Return	7,68%	Lower than 8.9% (WACC).
3	Payback Period	9 years and 4 month.	Happen before the project ends.

Table 9. Conclusion Table

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