Financial Feasibility Study of Home Care Business

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Abstract: The main purpose of this business plan is to assess the feasibility of the health care business in the patient's home. Developments in health services opened many opportunities to do business in the field of health care,and one of them is Home Care services. There are many opportunities for Home Care business that provide an opportunity for investors to develop this business. The opportunities that exist are many people with degenerative diseases that need long-term care, the number of Home Care in Indonesia is still a little, the existing Home Care is difficult to reach by consumers due to the lack of online services, and limitations of health care providers to accommodate all patients who need Home Care services**.** The purpose of this study is to know the feasibility of the establishment of a business plan of Home Care in Tangerang City. This study uses quantitative and qualitative methods. For the quantitative method, we used 3 (three) investment criteria, which are Net Present Value (NPV), Internal Rate of Return (IRR), Pay Back Period (PBP), and qualitative methods, we used non-financial approach, which are the operational aspects, marketing aspects, human resources aspects and business environtment aspects. Based on the analysis of financial feasibility, NPV of this project is IDR16,350,215 IRR is 132%, and Payback Period is 1 year 3 months. Based on the analysis of quantitative and qualitative, it can be concluded that the establishment plan of Home Care is feasible.

1 INTRODUCTION

Every company needs good planning, related to the business strategy or financial strategy. Financial planning is very important to do before starting the business due to the preparation of financial planning function to implement the steps to measure the achievement of business strategy, as well as provide an overview to investors regarding the feasibility of the company's business. Through the information presented in financial planning, investors can identify business risks that may occur in the future and could be useful for investment decision making. Investors need to analyse the financial aspects in order to know the projection of the company's financial statements as a whole and the changes that occur in the financial statements during a certain period so that based on the analysis that has been done, investors can find out whether the business is feasible or not.

Financial planning is one of the important elements of business planning in order to take investment decision making based on analysis of several aspects. This framework consists of 5 (five) elements of financial planning which consist of sales, expenses, investment, capital requirements, and financing. These 5 (five) elements generate 3 (three) components which consist of the planning of income statement, balance sheet, and cash flow statement.

Financial planning is a systematic process and uses quantitative forecasting of all cash inflows and outflows that are in line with the company's activities in order to find out the business opportunities in the future. Financial planning from this perspective is used as a mechanism to view and handle uncertainty in business. The analysis of this financial strategy consists of an income statement, balance sheet, and cash flow statement. Financial planning and budgeting is a series of processes by the company in order to execute its operational activities. The company needs operational funds to perform its operational activities.

Financial planning for the establishment of a new company will use the financial projections for the next 5 (five) years. The preparation for the establishment of the company will begin in 2017, and the estimated operational activities will begin in

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early 2018. The company will begin selecting the location of the business, renovation, purchase of fixed assets and recruitment of human resources. Purchases of medical support equipment will commence in early 2018, in accordance with the commencement of the company's operational activities.

2 LITERATURE REVIEW

A feasibility study is an evaluation and research of a project designed to uncover the strengths and weaknesses of the project and determine whether the project is feasible or not. In other words, a feasibility study is a preliminary study undertaken to assess whether a planned project is likely to be practical and successful to estimate its cost. We use a feasibility study to make decisions about a project or business ideas. By doing a feasibility study, people will have strong recommendations if a business idea is worthy of being achieved. We use 3 (three) tools for financial feasibility analysis, which are Net Present Value, Internal Rate of Return and Payback Period.

The definition of Net Present Value (NPV) by Ross, Westerfield and Jordan (2008) is that an investment is worth undertaking if it creates value for the owner. Net Present Value is the difference between an investment's market value and its cost. To determine the Net Present Value, we can simply find the present value of after-tax cash flow of the project. The net present value decision tool is a more common and more effective process of evaluating a project. Present value calculation essentially requires calculating the difference between the project cost (cash outflows) and cash flows generated by that project (cash inflows).

The NPV tool is effective because it uses discounted cash flow analysis, where future cash flows are discounted at a discount rate to compensate for the uncertainty of those future cash flows. The term "present value" in NPV refers to the fact that cash flows earned in the future are not worth as much as cash flows today. Discounting those future cash flows back to the present creates an apple to apples comparison between the cash flows. The difference provides the net present value. The general rule of the NPV method is that independent projects are accepted when NPV is positive and rejected when NPV is negative. In the case of mutually exclusive projects, we accept the project with the highest NPV.

The definition of Internal Rate of Return (IRR) by Lawrence L. Gitman (2009), is the discount rate that equates the NPV of an investment opportunity with $ 0 (because the present value of cash inflows equals the initial investment). The IRR is closely related to NPV. In this project, IRR of the project is equal to a discounted rate which the net present value (NPV) of the project is zero, which means that the project revenue is equal to project costs. The internal rate of return is commonly used to evaluate the desirability of investments or projects. The higher IRR of the project, the more desirable it is to implement the project, and also the lower IRR of the project, the less desirable it is to implement the project. Based on the IRR rule, an investment is acceptable if the IRR exceeds the required return.

The payback period (PBP) is the length of time required to recover the cost of an investment. The payback period of a given investment or project is an important determinant to undertake the position or project, as longer payback periods are typically not desirable for investment positions. The shorter PBP means, the more feasible investment, payback period ignores the time value of money, unlike other methods of capital budgeting, such as net present value, internal rate of return or discounted cash flow. Payback period is the most basic and straightforward decision tool. With this method, we can determine how long it will take to pay back the initial investment to undergo a project. In order to calculate this, we will take the total cost of the project and divide it by how much cash inflow that we expect to receive each year, this will give the total number of years or the payback period.

Sensitivity analysis is a technique used to determine how different values of an independent variable impact a particular dependent variable under a given set of assumptions. This technique is used within specific boundaries that depend on one or more input variables. Sensitivity analysis, also referred to as what-if or simulation analysis is a way to predict the outcome of a decision given a certain range of variables. By creating a given set of variables, the analyst can determine how changes in one variable impact the outcome.

The sensitivity analysis is based on the variables impacting valuation, which a financial model can depict using some variables. The sensitivity analysis isolates these variables and then records the range of possible outcomes. A scenario analysis, on the other hand, is based on a scenario. The analyst determines a certain scenario such as a market crash or change in industry regulation, then changes the variables within the model to align with that scenario. The analyst has a comprehensive picture, by knowing the full range of outcomes, given all extremes, and has an understanding for what the outcomes would be given a specific set of variables defined by real-life scenarios.

3 METHODOLOGY

There are 5 (five) major steps in doing this research, which are Problem Identification, Literature study, Data Collection, Data Processing and Analysing, and Conclusion and Recommendation. These steps need to be taken in order to complete the project. First, it needs to make problem identification from the research so that it will see the problem more clearly. This step is about defining the problem and determining the research objectives. The objective of this project is to determine the feasibility of the project whether this project is feasible or not, based on the NPV, IRR, and PBP calculation.

Literature reviews in this project are intended to help the reader to get the information needed to understand this project. It provides a literature study to help the reader to get the information needed. The literature reviews about this project are taken from several sources and media, which are printed books, brochures, an article from the internet, government regulation, interview with people involved in the health industry, interview with prospective clients, and printed reports from related feasibility projects.

There are 2 (two) kinds of data which will be used in this project, revenue calculation data and cost calculation data. The data which is going to be used for calculating the revenue is the data that we have from the company projected sales for 5 (five) years, and there are 3 (three) types of costs going to be calculated in this project, investment cost, fixed cost and variable cost. The data will be processed and analyze by concluding the problem-solving model based on the method of making a good feasibility study; this model is a common type of model of concluding feasibility study.

We take the calculation of the overall project’s costs, revenues, NPV, IRR, and PBP to get the conclusion of this research. The recommendation will also be taken from the overall project’s costs, revenues, NPV, IRR, and PBP. We need recommendations to improve the quality of Home Care Business.

4 ANALYST

4.1 Capital Requirements

In order to run this business, we need working capital IDR 650,000,000. The working capital consists of total initial investment and the required cash reserves. Funding at the beginning of the establishment of the company's operations comes from investors. Investors as a provider of funding for the establishment of the company are given the option to include their capital with an investment scheme scenario of having 60%, 70% and 80% of the paid-up capital and enter into the corporate modal structure.

Capital requirements, both capital investment and working capital, can be searched from various sources of existing funds, which are own capital or loan capital. Own capital is the capital from the business owner while the loan capital is capital from outside the company. In practice, the financing of a business can be obtained by a combination of its capital and loan capital. The choice of whether using their capital, loan capital or a combination of both depends on the amount of capital required and the policy of the business owner.

Own capital is the capital obtained from the owners of the company by issuing shares. The advantage of using own capital to finance a business is the absence of interest charges, but will only pay dividends. The dividend pay-out is made when the company gains profit, and the amount of dividend depends on profit. The disadvantages of using its capital is the amount is very limited and relatively difficult to obtain.

4.2 Financial Projection

To see the company's financial development and analyze the feasibility of the business, then we make a projection for the next 5 (five) years. The projection of the financial statements consists of three scenarios, which are Optimistic Scenario, Normal Scenario, and Pessimistic Scenario, some assumptions used in the projection of financial statements. We prepare pre-operation activities since August 2017 so that at the beginning of 2018, we can conduct business operational process.

The growth rate of market share that is used in Normal conditions is estimated at 5%. This is due to the company's ability in the Normal scenario is in constant demand growth to get the patient. In optimistic condition, it is estimated that the growth of market share owned by Home Care business is

8%. This is due to Home Care's ability in an optimistic scenario that can gain a large market share increase in a short time. In a pessimistic condition, the growth of market share owned is 3%. This is because there is still much demand for other Home Care services as well as the emergence of competitors in the same industry that will take the Home Care market share.

4.2.1 Income Statement

In a normal scenario, we assume that the average amount of income in one year is IDR7.447.635.000, which consists of homestay and home visit services IDR6.640,150,000 whereas from the estimates of action services conducted in one year by doctors and nurses is IDR355,685,000 and income from medical equipment rental is IDR378.000.000. Cost of goods sold is 77% of sales, and depreciation cost is IDR67,392,250. The dividends as a form of profit sharing to investors are distributed on a regular basis every year amounting to 40% maximum. The company will make the tax payments in accordance with the provisions of corporate income tax.

4.3 Balance Sheet

In the projection of the balance sheet with normal scenario in 2018, the total of current assets is IDR683,774,734 which consist of cash and bank. Total of non-current assets consist of tangible and intangible assets is IDR300,539,250, so the total amount of assets is IDR984,313,984. The Company does not have any accounts payable because the daily operations of the company are engaged in services, the use of operational funds is mostly used to purchase medical supplies, that amount is adjusted to consumer demand so it will not affect the company's cash flow.

Loans from banks and third parties do not exist because the company has just established, so it is rather difficult to get a loan from a third party. Also, the paid-up capital by investors is still positive and sufficient to finance the company's operational activities. The amount of paid-up capital is IDR650,000,000 and retained earnings obtained from the profit and loss scenario is IDR334,313,984, so the total equity amounted to IDR984,313,984.

4.4 Equity Growth

We established this Business from independent investment results, where the paid-up capital after the planning of funding policy is IDR650,000,000, and the paid-up capital result is from the investor as a whole. The number of investors in terms of depositing capital becomes the freedom of shareholders to determine the portion of the joint investment and becomes an option for business planners due to the High Risk and High Return factors for the investment results. We expect this profit to provide positive value for investors in the long term, and we also expect the value of the company can provide good business continuity.

4.5 Cash Flow Statement

In this cash flow statement, we apply the cash method in accordance with the application of working capital. This is because we want to anticipate the impact of cash flow turnover that is not effective in its use. The cash flow statement scenario is based on the assumptions of the values in the projected income statement and balance sheet year 2018 to 2022. The portion of the operating activities, investment activities and financing activities are described by their respective portions.

Based on the normal scenario calculation, the company plans to provide cash flow from operating activities IDR624,582,244, cash flow from investment activity IDR278,026,500, and cash flow from financing activities IDR222,875,990, so the company will be able to generate positive net cash flows IDR123,679,734 in the first year. The differences in these scenarios lie in different underlying assumption factors so that the elements of the external factor are also accounted for cash flow analysis of operating, investing and financing activities.

5 CONCLUSION

5.1 Investment Feasibility Analysis

Analysis of feasibility is assessed using Discounted Cash Flow (DCF) with Net Present Value (NPV) parameters. This model will show the net value of the investment to investors. Other calculations are Internal Rate of Return (IRR), Return on Investment (ROI) and discounted payback period that will provide information to support the feasibility analysis of this business. Details of investment feasibility calculation can be seen in table 8.1.

Table 8.1. Investment Feasibility Analysis

ODIS HOME CARE FINANCIAL HIGHLIGHT 2018
(in million IDR)

No.	DESCRIPTION	2018	2018	2018
		Normal	Optimist	Pessimist
1.	Revenue	7,448	10,685	4,424
2.	Initial Working Capital Cost	650	650	650
3.	EBIT	671	1,223	238
4.	Gross Profit	1,724	2,399	1,106
5.	Tax	114	237	30
6.	Profit After Tax	557	986	208
7.	Net Profit Margin	9%	11%	5%
8.	Total Assests	984	1,242	796
9.	Total Liabilities	-	-	-
10.	Equity	984	1,242	796
11.	Return on Equity	68%	99%	30%
12.	Return on Investment	134%	245%	48%
13.	NPV	16	39	4
14.	IRR	132%	185%	70%
15.	Payback Period	1 Year + 3 Months	10 Months	2 Year + 3 Months
16.	Break Even Price	295,763		
17.	Break Even Unit	2,762		
18.	Break Even Sales	1,756		
19.	WACC (Cost of Capital)	20%	18%	22%

As explained in the Theoretical Foundations, the Net Present Value, Internal Rate of Return and Payback Period calculation will be the biggest aspect which will conclude this project is feasible or not. Based on the above calculation, it can be concluded that the business of Home Care is feasible to be realized. This can be seen from the positive balance of NPV. The positive balance of NPV in business indicates that the cash flow generates greater revenue than the expenditures, the remaining profits in the form of dividends will be distributed to shareholders. NPV risk analysis can be analyzed with WACC values of 20% in Normal scenario and percentage of inflation growth. This business risk can be categorized as high risk - high return.

In the Normal scenario, the rate of return is indicated with IRR 132%, and Return on Investment (ROI) is 134%. The IRR means that the business can provide a rate of return and a profit greater than the cost of capital. The duration of the Payback Period is one year and three months for the Normal scenario indicates the business of Home Care is a high risk - high return.

In the calculation of Free Cash Flow for Equity (FCFE) in the Normal scenario, the calculation of NPV is at position IDR16 million, for the Optimistic scenario is IDR39 million and IDR4 million for the Pessimistic scenario. The projection in the free cash flow has a very large proportion in the calculation of business feasibility analysis. The result of the company's growth rate assumption is equal to 30%, 20%, and 15% for Optimistic, Normal and Pessimistic scenario (industrial growth and inflation).

5.2 Sensitivity Analysis

For the sensitivity analysis, there will be some assumptions to analyze, which are price, sales level, inflation, change of industry regulations. The price and sales level are internal factors which are an important part of the cash inflow on the company that has a revenue stream only from the home care service. Meanwhile, the inflation, change of industry regulations s are external factors which occurred on the cash outflow, so we cannot control that factor, this a fluctuation factor that can be changed at any time due to a new government policy

Sensitivity analysis is a variation in scenario analysis to know the risk type of forecasting whether tested properly. We use sensitivity analysis by selecting a key variable that affects the Net Present Value of the data previously. We use the assumption of a decline in sales caused by external factors. Details of sensitivity analysis can be seen in table 8.2.

Table 8.2. Sensitivity Analysis

Description	Total Sales Per Year Period			
	Unit	Normal	Optimist	Pessimist
Number of Sales Target	Amount	2,415	3,863	1,449
NPV	IDR (in million)	16	39	4
IRR	%	132	60	70
PBP	Year	1 Year + 3 Months	10 Months	2 Year + 3 Months
Description	**Sales Per Service**			
	Unit	**Normal**	**Optimist**	**Pessimist**
Sales Down	30%	1,691	2,704	1,014
NPV	IDR (in million)	29	60	19
IRR	%	45,4	138	43

In the calculation of this sensitivity analysis, we use the assumption of 30% reduction in sales from the previous sales scenario, which are from normal, optimistic and pessimistic. Sales down 30% for pessimistic scenarios will have an impact on firm value. However, pessimistic sales targets is a scenario when economic conditions are not good,and we cannot achieve sales targets. In normal and optimistic scenario still shows a positive signal and stable economic conditions. Thus, the value of the company can still be maintained if the scenario is optimistic and normal in real conditions.

5.3 Feasibility Study Result

From the analysis, it concludes that the Business Project of Home Care is **FEASIBLE** and can be implemented.

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