

BEP Analysis & Risk Management In the Decision Making of the Declaration of Bankruptcy

Haryantini

Faculty of Economics and Business, Universitas Pamulang
yanti.hasan80@gmail.com

Syahnego

Faculty of Economics and Business, Universitas Pamulang
Syahnego02306@unpam.ac.id

Abstract

Break Event Point Analysis and Risk Management Analysis on the decision to close a business temporarily or permanently are presented in this study so that the company and the shareholders in it are able to determine when to take exit actions and declare bankruptcy. The research was conducted at PT CBP which is engaged in the Indonesian electricity industry. This topic is important because the firmness of the bankruptcy statement has the consequence of a number of burdens that must be borne by a legal business entity related to fulfilling obligations according to labor laws and regulations, and fulfilling obligations to return business capital to shareholders. Financial calculations in the field of asset value against debt obligations and financial calculations on operating costs are the comparison factors that determine the threshold for making this bankruptcy decision. This study will present data related to BEP variables, asset value data, debt liability data, and operational data. Furthermore, a number of these facts and data are entered into the risk analysis matrix. By modifying hibernation operational decisions, companies can avoid bankruptcy, namely by doing an exposure type, releasing some of the ownership of existing assets, continuing business with hibernation mode.

Keywords

BEP, risk management, asset value, operations, bankruptcy

1. Introduction

The COVID-19 pandemic that occurred in early 2020 in Indonesia had a significant impact on the business world and the industrial world. The slowdown and/or cessation of various activities in almost all sectors of life has cut supply chains and product flows. Likewise, the decline in demand fell to a very severe point. There are so many companies that cannot survive and go out of business. This research presents an analysis that reveals the stages of how bankruptcy issues hit a company based on BEP & Risk Management Analysis in Decision Making on Bankruptcy Statements by taking a case study at PT. CBP during the COVID-19 Pandemic season. PT CBP as an industrial distributor and manufacturer of electric lighting which is also heavily affected in its operations so that it is prone to closing. This research maps a rational thinking framework based on processed facts and data that is applied to the bankruptcy decision-making method by considering the data variables Sales value, variable costs, fixed costs, total revenue, contribution margin ratio in the BEP analysis. Then enter it into the decision-making matrix by weighing the nominal Assets (Assets) = Debt (Liabilities) + Capital. Next, look at opportunities whether it leads to a declaration of bankruptcy or changes work operations as emergency operations to survive further.

2. Literature Review

2.1. BEP (Break Event Point)

Break Event Point or break even point is a condition when sales revenue is equal to production costs so that a business entity can be said to have neither profited nor lost. Some literature calls it the point of departure. In

English it is called Break Event Point [1]. BEP analysis is a fundamental thing that is important to use to find out the following:

- The lower sales limit that must be maintained so that the company does not lose money
- The number of sales that must be achieved to obtain a certain level of profit
- The effect of changes in selling prices, costs and sales volume on profits.

The calculation of the break-even point can be done using the equation method or the distribution margin method. In the equation method, the break-even point is obtained if sales are equal to the addition of variable costs and fixed costs. Whereas in the contribution margin method, the break-even point is obtained if fixed costs can be covered by income minus the value of variable costs.[2]

2.2. Risk Management

Humans want everything they can control, but the factor of limitations makes uncertainty something that limits them. In a state of uncertainty there is risk. Risks are to be avoided and minimized as much as possible, manageable and lead to acceptable results. Risk is interpreted by many experts from different points of view, depending on its importance. However, for the purposes of this study, risk is defined as an uncertainty over the occurrence of an event. In statistical language, risk is measured by deviation (variance over what is expected (expected value)). This element of uncertainty often causes a loss or damage. This is a universal trait, almost always exists in all aspects of human life. Losses due to the element of uncertainty (risk) can be manifested in various activities; both in economic, social, business and legal activities.[3]. Furthermore, in the administrative activities of the risk management program, policy formulation, program planning, policy statements, and periodic reviews are carried out

2.3. Decision Making Analysis

According to George R. Terry, decision making is the selection of certain behavioral alternatives (behavior) from two or more existing alternatives.[4]. According to Terry (1989) the factors that must be considered in making decisions are as follows:

1. Things that are tangible or intangible, emotional or rational need to be taken into account in decision making;
2. Every decision must later be used as material to achieve organizational goals;
3. Every decision should not be oriented to personal interests, pay attention to the interests of others;
4. Rarely there is 1 satisfactory choice;
5. Decision making is a mental act. From this mental action it must then be transformed into a physical action;
6. Effective decision-making takes a long time;
7. Practical decision making is required to get good results;
8. Every decision should be developed, so that it can be known whether the decision taken is correct
9. Each decision is the starting action of the next series of activities.

According to Brinckloe (1977), there are various schools that display different theories of decision making, namely the bureaucratic flow, the scientific management school, the human relations school, the economic rationality flow, and the satisficing school. types of management methods, as follows:

1. Assumption (Retention) Assumption or risk retention is a common method used in managing risk with low loss value, and if it occurs it will not have much effect on the finances of the business entity.
2. The transfer of speculative-dynamic risk can be transferred to the public, consumers, or non-insurance institutions.
3. The combination method in risk management is an activity of combining various types of activities or businesses that complement each other.
4. Loss prevention is one method of risk management that is more decisive in monitoring losses in an effort to carry out prevention
5. avoid situations that could potentially cause harm.
6. increase knowledge or conduct research. Where management knows more about the problems of uncertainty faced so that they are stable in anticipating or managing the risks that exist in their business activities.

According to George R. Terry and Brinckloe mentioned the basics of approach to decision making [5] that can be used, namely:

1. Intuition, having a subjective nature contains several advantages and disadvantages.

2. Experience, more mature in making decisions even though past events are not the same as current events.
3. Facts, the level of confidence in decision making is higher,
4. Authority, usually this applies in the same direction from the leader to his subordinates
5. Logical/Rational, the resulting decisions are logical, objective, consistent, and more transparent, to maximize results.

2.4. Bankruptcy Analysis

The settlement of bankruptcy cases is an important part that supports the ease of doing business in Indonesia. This is a reference for investors to ascertain whether debt can be paid, as well as whether companies that have financial difficulties have a mechanism to restructure their debts. In addition, the settlement of bankruptcy cases can describe whether the liquidation settlement mechanism can be resolved transparently with the best results.[6]. Bankruptcy Law Number 37 of 2004 states that the decision to declare bankruptcy brings legal consequences for both the debtor providing the Mortgage and the creditor holding the Mortgage. With the decision to declare bankruptcy, the assets of the debtor since the decision was issued, have become bankrupt assets (faillieten boedel), the bankrupt debtor by law loses control rights and mortgage rights (preferred creditors) who have separatist rights, suspended for a period of 90 days. 7].

2.5. Value of Assets and Liabilities

Reporting from the Bench Accounting website, assets can be interpreted as resources owned and controlled by a company. Examples of assets are cash and assets in the form of buildings. Asset means if the resource is owned and has a certain value. According to PSAK No. 16 Revised in 2011, assets are all assets owned by individuals or groups that are tangible or intangible, which have a value that will have benefits for every person or company.[8] Assets are divided into two types, namely: Current assets These assets are usually in the form of cash or anything that can be converted into cash, to be used in the near future. Examples are cash, inventory, and so on. Fixed assets These assets are used to carry out the company's economic activities. These assets take a long time to be sold or converted into cash. Examples are land, trademarks, and so on.

A liability is an obligation that a company has, arising from past events. Examples of liabilities are taxes payable and payroll payable.

Another word for liability is the debt that a company has when it borrows funds or other forms from other companies. There are two types of obligations or liabilities, namely: Current liabilities This debt must be paid within the next 12 months or short-term debt. An example is salary or wages payable. Non-current liabilities This debt must be within 12 months or longer term debt. An example is accounts payable.

3. Methods

The methods used in this research can be simply explained in the following order:

1. Analyze all variables involved in BEP to measure the lower limit of business feasibility or loss area.
2. Taking into account the strength of assets derived from liabilities and capital.
3. Entering the facts of the calculation results into the risk analysis matrix.
4. Make calculations based on the lowest risk.
5. Make a decision and test it.

4. Data Collection

In the operation, Enterprise have a set of variable and data as below,

4.1. BEP Analysis

BEP analysis was conducted to base the decision making. Break even point calculation on the basis of units as formulated below:

$$BEP(Q) = \frac{FC}{P - VC}$$

Where

BEP(Q) : Number of units/quantity of product that produced and sold

FC : Fixed costs = Rp 90,000,000,-

P : The selling price of the product produced per Units = IDR 200,000,-
 VC : Variable cost per unit = IDR 120,000,-
 P – VC : Contribution margin unit = IDR 80,000,-

By entering the numbers above, we get $BEP(Q) = 250$ units per month. However, during this pandemic, sales have shrunk to just 900 units per month. With the order volume, it means that the company's income is only $P \times V = IDR\ 200,000,- \times 250\ Units = IDR\ 50,000,000$ per month. A very minimal number.

4.2. Asset, Liability and Capital Analysis

Assets are a combination of liabilities and capital. The discussion is limited to production. Where there is a company obligation to pay the wages of 20 employees \times Rp. 4,000,000,- per person per month = Rp. 80,000,000,- total wages per month. While the capital to make 250 units of product is $250\ units \times Rp.\ 120,000,- = Rp.\ 30,000,000,-$

From this fact, the company's expenses per month are $FC + Wages + Capital = IDR\ 90,000,000 + 80,000,000 + 30,000,000,- = IDR\ 200,000,000$ per month. While the income is only IDR 50,000,000 per month. The deficit of 150,000,000 per month will then be included in the risk management analysis.

4.3. Risk Analysis Matrix

The facts that emerge from the BEP analysis are then used as decision-making material.

Table 1. Risk Analysis Matrix

No	Exposure Type	Losses Frequently	Emerge Losses	Losse Value
1	Release some ownership of existing assets, continue business in hibernation mode.	Low	Low	Low x Low
2	Inject additional capital from bank loans, continue business in hibernation mode.	High	Low	High x Low
3	Bankruptcy statement. Commissioner exit, business permanently closed.	Low	High	Low x High
4	Inject additional capital from bank loans, continue business in normal mode.	High	High	High x High

5. Results and Discussion

5.1. Making decisions and Assessing the Risks

In table 1 of the risk analysis matrix, the type of exposure is the act of releasing some of the ownership of existing assets and continuing the business in hibernation mode. Being the strongest choice candidate because it has the lowest level of risk compared to the other three actions. Hibernation mode is where the worker's obligations are reduced due to a reduction in orders. Workers who return to work are only permanent workers, while part-time workers are laid off. The consequence of the reduced obligations of the workers is followed by the reduction of the workers' wage rights to a reasonable limit. This action can reduce the burden of company obligations on the one hand while employees are asked to live simply and wisely in spending their income. Similarly, the consumption of electrical energy and other operations are all reduced. This is a time when all parties must be frugal.

Release 5 non-permanent employees. Streamline production and materials from the cost of Rp. 120,000,- per product to Rp. 100,000,- per product. Streamline the entire company's fixed costs by half, or from IDR 90,000,000 per month to IDR 45,000,000 per month. Reducing the employee's entry obligation by half which resulted in a decrease in worker's wage income from IDR 4,000,000 to IDR 2,000,000 per month. These savings measures have an impact on the value of the new BEP variable, where the financial expenditure obligation which was originally IDR 200,000,000 per month remains $FC + Wages + Capital = IDR\ 45,000,000,000 + IDR\ 300,000,000,- + IDR\ 25,000,000,000,- = IDR\ 100,000,000$ per month. So that the budget deficit from the original Rp. 150,000,000,- only remains for $Income - Expenditure = Rp.\ 50,000,000,- - Rp.\ 100,000,000,- = Rp.\ -50,000,000,-$. This budget deficit is in accordance with the exposure type scenario in table 1 of the risk analysis matrix, managed by releasing the company's assets of Rp. 1 billion.

5.2. Hybernate Methode

The deficit of IDR -50,000,000 per month has been decided to be covered using the company's asset disposal fund of IDR 1 billion. This means that the value of the bridging operational funds from the disposal of assets is divided by the company's expenditure obligations for operations of IDR 50,000,000 each month resulting in a 20-month hibernation period. This decision was taken since April 2020 and will last for the next 20 months, namely until November 2021. It is hoped that in November 2021 the situation will be relatively normal again.

5.3. Testing the decision-making model

The second type of exposure scenario is the injection of additional capital from bank loans, continue the business in hibernation mode. This means using bank loan funds to repay the loan repayment obligations along with the interest.

Table 2 Loan Simulation 1 (per thousand rupiah)

Month	Journal	Debet	Balance
	Loan		1000000
1	instalment	60000	940000
1	Defisit	50000	890000
2	instalment	60000	830000
2	Defisit	50000	780000
3	instalment	60000	720000
3	Defisit	50000	670000
4	instalment	60000	610000
4	Defisit	50000	560000
5	instalment	60000	500000
5	Defisit	50000	450000
6	instalment	60000	390000
6	Defisit	50000	340000
7	instalment	60000	280000
7	Defisit	50000	230000
8	instalment	60000	170000
8	Defisit	50000	120000
9	instalment	60000	60000
9	Defisit	50000	10000
10	instalment	60000	-50000

If the company borrows Rp. 1 billion at an interest rate of 12% per year with a 20-year ceiling, it is subject to an obligation to repay Rp. 60 million per month. Meanwhile, the company also uses these funds to survive the pandemic season in hibernation mode, so the company will only be able to survive until the 10th month. Meanwhile, the installment obligations of Rp. 60 million and operational obligations of Rp. 50 million will continue for the next 10 months. The second exposure option failed to be accepted due to the high frequency of losses although there is a low probability of loss severity if and only if the pandemic ends 10 months after taking the loan.

The third type of exposure scenario is a bankruptcy statement. Commissioner exit, business permanently closed. This option contains a low loss frequency due to the immediate exit of a force majeure situation, although the severity of the loss is high because everyone will lose their job and it will be difficult to start over.

The fourth type of exposure scenario is the injection of additional capital from bank loans, continue business in a normal mode.

If the company borrows Rp. 1 billion at an interest rate of 12% per year with a 20-year ceiling, it is subject to an obligation to repay Rp. 60 million per month. Meanwhile, the company also uses these funds to survive the pandemic season in normal mode, so the company will only be able to survive until the 5th month. Meanwhile, the installment obligations of Rp. 60 million and operational obligations of Rp. 150 million will continue for the next 15 months. The fourth exposure option failed to be accepted because the frequency of losses was high and the severity of the losses was also high.

Table 3 Loan Simulation 2 (per thousand rupiah)

Month	Journal	Debet	Balance
	instalment		1000000
1	Defisit	60000	940000
1	instalment	150000	790000
2	Defisit	60000	730000
2	instalment	150000	580000
3	Defisit	60000	520000
3	instalment	150000	370000
4	Defisit	60000	310000
4	instalment	150000	160000
5	Defisit	60000	100000
5	instalment	150000	-50000

6. Conclusion

Surviving in a compelling situation (Force Majeur) requires caution in making decisions. In this COVID-19 pandemic season, an efficiency and savings strategy is needed in all fields to be able to get through it safely. Companies also need to take wise and fair steps for all elements in it. It takes generosity and acceptance of the situation. On the other hand, the company sacrifices to release assets to be invested in hibernation mode, while on the other hand, employees sacrifice their willingness to cut their salary according to the number of days they enter. On the other hand, work efficiency activities are carried out in an effort to save materials and energy in order to produce quality products at low costs.

References

Cerdasco. (dalam bahasa Inggris). 2019-07-19. "Titik impas". Diakses tanggal 2020-10-27.

[Chalil 2018](#), hlm. 439.

Fadjar Harimurti, "MANAJEMEN RISIKO, FUNGSI DAN MEKANISMENYA", Jurnal Ekonomi dan Kewirausahaan Vol. 6, No 1, April 2006 : 105 – 112, Fakultas Ekonomi Universitas Slamet Riyadi Surakarta

Salusu, J. 1996. Pengambilan Keputusan Stratejik untuk Organisasi Publik dan Organisasi Nonprofit. Jakarta: PT Grasindo

Siagian, S. 1998. Teori dan Praktek Pengambilan Keputusan. Jakarta: CV. Haji Masagung

Perubahan Undang-Undang Nomor 21 Tahun 2008 tentang Perbankan Syariah, ditindaklanjuti oleh Otoritas Jasa Keuangan c.q. Bank Indonesia c.q. Kementerian Hukum dan HAM RI.

Undang-undang Republik Indonesia Nomor 37 Tahun 2004 Tentang Kepailitan Dan Penundaan Kewajiban Pembayaran Utang.

PSAK No. 16 Revisi Tahun 2011

Biography

Haryantini is a lecturer who works at a Pamulang university, at the faculty of economics and business management in the management department, she has previous work experience at a Lippo bank in a customer service position and has worked as a marker in several poperti in Indonesia, she was born in Bengkulu in April 13, 1980, in 2019 he was invited by a cosmetic company in Korea for a presentation on foreign cosmetic marketing strategies in Indonesia.

Syahnego is a lecturer at Pamulang University at the Faculty of Economics and Business Management in the Management Department. currently has a side job as an economic consultant and company management. Experience as a manager in a bank makes Shahnego proficient in banking and economic problems