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AN EMPIRICAL STUDY OF THE FACTORS THAT INFLUENCE FINANCIAL DISTRESS (A CASE ON MINING INDUSTRY IN INDONESIA)

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ABSTRACT

The purpose of this research is to empirically prove the role of profitability, financial leverage, and operating cash flow in predicting financial distress which can be useful for stakeholders and researchers in the future (creditors, government, and investors). This research uses quantitative research method and the data is taken from the issuer's financial statements on IDX by purposive sampling method. Multiple linear regression is used to analyze data in this research. The population used is mining industries listed on the Indonesia Stock Exchange for 7 years of observation, from 2014-2020. There are as many as 55 samples obtained in this research which are then analyzed using software Microsoft Excel and SPSS 26.0. This study shows that the profitability and operating cash flow variable have a positive effect on financial distress; variable financial leverage does not effect financial distress. Debt is a factor that can cause financial distress, so that the leverage ratio setting and debt policy must be a concern for the company, especially for mining companies that require working capital and investment in their operations.

Keywords: *Financial Distress, Profitability, Operating Cash Flow, Financial Leverage*

1. INTRODUCTION

In this period of globalization, economic competition is increasingly competitive, plus the emergence of the Covid-19 pandemic phenomenon which began at the end of 2018 until now which has resulted in a drastic decline in the world economy, including in Indonesia. In 2020, the world economy and Indonesia experienced a significant decline, data from BPS, the Indonesian economy in the second quarter of -5.32% decreased 7% from the first quarter of 2.97%. (www.bps.go.id). This condition has an impact on almost all economic sectors, one of which is the most affected, including the mining sector. This adversely affects the company's performance and harms the company like funding difficulties, which results in the company experiencing financial difficulties, from mild to severe difficulties and can lead to bankruptcy which can be referred to as financial difficulties according to [1]; [2]; [3]; [4]. From the situation that happened, it certainly resulted in a decrease in the amount of income to the difficulty of paying debts to the company's creditors. Strategic measures related to fiscal and monetary are necessary to stimulate the economy. Companies that are unable to adapt to current economic conditions by strengthening financial fundamentals and financial assessments can result in company bankruptcy (*Financial Distress*). There are several sectors that have been the most depressed as a result of the COVID-19 Pandemic as incomes have fallen significantly. One of the sectors that got impacted is the mining sector industry. The decline in consumer purchasing power during the pandemic led to a decrease in production levels which in turn resulted in a decrease in energy demand, including coal and oil and gas. Moreover, several factories have stopped their operations as stated by the Head of Regional Arrangement and Development of the Energy and Mineral Resources Office of South Kalimantan Province. During the Large-Scale Social Restrictions (PSBB) many companies chose to close, so coal sales fell (Banjarmasinpost.co.id). The mining sector has good prospects due to the high demand for resources. However, on the other hand, the processing of natural resources requires large funds. When the company decides to borrow these funds without considering the company's ability to pay off its debts, the possibility of the company experiencing financial distress is greater.

One of the reasons the company closes its business is because the income earned by the company is less than the costs incurred by the company for a certain period of time. In addition, the company also has not been able to pay its obligations to other parties when they fall due because the company does not get a profit every period of its operation. Broadly speaking, it can be caused by high expenses, wrong financial planning and too many non-liquid assets.

Related Work

In the results of research conducted by [5], it is proven that the quick ratio and profitability have no influence on financial distress. Likewise with the results of research [6] which states that profitability using the Return On Assets proxy has a negative effect on financial distress. In contrast to the results of the research [7] that profitability has a positive influence on predicting financial distress.

In accordance with research from [8] which shows that leverage has a positive influence on financial distress. Similarly, the results of research by [9] which states that Leverage using the DER proxy has no influence on financial distress. It is different with the results of research from [10], which shows that Leverage has a positive influence on financial distress.

In the results of research by [11], it is stated that operating cash flow has no influence on financial distress. Similarly, the results of research is [12] that cash flow has an insignificant positive influence on financial distress. In contrast to the results of research from [13] which states that cash flow has an effect on financial distress conditions. Likewise the results [14] states that operating cash flow has a significant influence on *financial distress*.

Contribution

Based on the formulation and identification of the problems described above, the objectives to be achieved in this research include to analyze the influence of profit on financial distress, operating cash flow, and financial leverage conditions in mining companies.

From the aims of studied above. this research is expected to provide contribution for 1) companies to strengthen weakness variable that worse financial company that companies can take policies to take corrective or preventive actions, 2) external parties, such as investors and creditor, this research can help investors when they decide to invest in a company, and creditors may predict financial distress in deciding to provide loans and also used to assess the possibility of a company's problems in repaying principal and interest, and 3) scholars, this result study are expected to be used as input and contribution to the development of knowledge regarding the financial distress condition of a company and can be used as a reference for further research.

Paper Structure

Section two describes related theoritical review and hypothesis development. Section three describes the methodology of research. Then, Section discusses the test results, conclusion, and limitation.

2. THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Theoretical Review

Signaling Theory

Signalling theory is the act of providing direction to investors by management sector of the company in the management's assessment of the company's prospects. Management seeks to increase company profits by improving company performance. Signal theory gives information to external sector regarding the future situation of the company according to [15]. Signal theory developed by [16] explains the behavior of company management in providing information to investors on how management assesses the company's prospects because management has complete information about the company. Positive signals (good news) are expected to positively affect the market such as dividend distribution, earnings announcements, good company conditions and negative signals (bad news) which are likely to reduce investors' desire to invest.

Financial Statement

Financial statements are the results of summarizing the company's financial data which are compiled systematically for internal and external purposes. Financial statements provides information about the company's performance, cash flows and the financial position of the company. financial statements are useful for report users in making decisions for the economic and for management's accountability in using resources wisely. Financial reports tell the past performance of an industry and provide a basis for business analysis and predictions for the financial statements users in making decisions for the economic according to [17]. Financial reports provide financial information to external and internal parties of the company, who have an interest in the company [18].

Financial Distress

Financial Distress describes the condition of company's financial that is not in a good condition. Financial difficulties can occur due to the influence of the company's internal and external. [19] Financial distress is a condition that begins with company finances that are managed in an orderly manner. And because of this, management cannot monitor the company's financial condition and this results in increased business risk. According to [20], financial distress is a broad concept consisting of conditions in which a company is facing a situation of financial difficulty. The initial signal of this financial difficulty is the debt covenants that are not complied with and the reduction or elimination of dividend payments according to them. Financial difficulties began with liquidity pressures that were getting heavier and heavier, then continued to decline in assets, so that they could not pay their financial obligations and made the company go bankrupt. By knowing the financial distress of a company early, it is hoped that it can take early action to anticipate things that can lead to bankruptcy.

Profitability

The income statement is prepared to describe the company's operating results at a certain time. The income statement also describes the success or failure of the company's operations in achieving its goals. [18] Profitability is all expenses and incomes acquire by the company as the use of assets and liabilities in a period. High profits will result in increased shareholder welfare and will increase investor interest in investing by investing in the company. Profits that are high also describes the success of a company in managing the operational activities of a company according to [21]. By knowing the profitability ratios, the ability of a accompany to gain profits from share capital and asset sales can be understood.

Operating Cash Flow

Operating cash flow determines if the operations of a company is able to make profits used to pay loans, maintain operations of a company, distribute dividends and invest without relying on outside funding. In financial statements, cash flow statements must be prepared which provide information about cash inflows and outflows which can help users in analyzing the performance of the company and knowing the future prospects of the company. Creditors will believe that the company can fulfill its obligations and will avoid financial distress, if the company has good cash flow according to [22]. In conclusion company is in healthy condition if it has greater cash flow because it has cash available for payment of debts, growth, and dividends.

Financial Leverage

According to Bringham and Huston in [23] stated that financial leverage is the degree to which debt is used in the capital structure of a company. Leverage shows the effect on the level of investment in the company where the debt level of a company will indirectly affect the interest and confidence of investors in investing [21]. The amount of debt of the company will affect the level of risk from company being in a financial distress situation [24].

Hypothesis Development

Profitability is the ability of a company to make profits [25]. The company has an obligation to provide returns to shareholders from the profits generated by the company. The higher the profitability ratio, the lower chance of a company to be bankrupt. Conversely, the lower the profitability ratio, the company's financial performance is unstable where the company is not able to optimize its assets to generate profits. Thus, profitability decreases and the probability of financial distress increases. This is in line with the research of [21] and [12] who find that profitability has an influence on financial distress, in contrast to the research conducted by [5] who found that profitability had a negative influence on financial distress.
H1: Profitability has a positive and significant effect in predicting Financial Distress.

Operating Cash Flow shows the capabilities of a company to pay its obligations using its net cash flow. Operating cash flow helps creditors to determine the financial condition of a company. If the company has great cash flow, creditors will gain confidence that the company can carry out its obligations and the company will avoid financial difficulties, and vice versa. These results are the same with research from [13] and [14] which show that cash flow can be a predictor of company financial distress.
H2: Cash flow has a positive influence in predicting Financial Distress.

Leverage ratio is used to measure in which company assets are financed by debt. In a study conducted by [11] which found results that leverage affects financial distress. A high leverage ratio explains that corporations use funds from external parties outside the company [26]
H3: Financial leverage has a positive influence in predicting Financial Distress.

3. METHODOLOGY

This research uses dependent and independent variables. The dependent variable in this study is financial distress, while the independent variables in this research are probability, operating cash flow and financial leverage.

The methodology used in this study is a quantitative research method using secondary data from the official website of the Indonesia Stock Exchange (www.idx.co.id). This research is an analysis of the role of profitability, operating cash flow and financial leverage variables in predicting financial distress. The sampling technique used in this study is purposive sampling, where there are several criteria that must be met, namely: (1) mining industries listed on the Indonesia Stock Exchange during 2014-2020; (2) Mining companies listed on the Indonesia Stock Exchange (IDX) which publish financial statements for the 2014-2020 period: (3) The company does not experience de-listing for the 2014-2020 period; and (4) The company has negative net income for two or more consecutive years. This criterion indicates a financial distress condition because having a negative net profit for two or more consecutive years means the company has experienced a decline in financial condition. There are 51 mining companies that meet these criteria, which will then be analyzed using Microsoft Excel and SPSS 26.0. The proxies of the research operational variables in the period of 2014-2020 is listed as the following:

Table 1 Operationalization of Variables

No.	Variables	Formula	Measurement
1.	Financial Distress [24]	$Z = 1,2X_1 + 1,42X_2 + 3,3X_3 + 0,6X_4 + 0,999X_5$	Ratio
2	Profitability (ROA) [ ]	$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$	Ratio
3	Operataion Cash Flow (OCF) [22]	$OCF = \frac{\text{Operation Cash Flow}}{\text{Current Liabilities}}$	Ratio
4	Financial Leverage (DER) [18]	$DER = \frac{\text{Total Liabilities}}{\text{Total Equity}}$	Ratio

Source: Compiled by Author

4. RESULT, CONCLUSION AND LIMITATION

Result Test

The normality test with the Kolmogorov-Smirnov One-Sample showed a significance value of 0.072, it shows that the data are in normal conditions. For the multicollinearity test, the tolerance Variance Inflation Factor (VIF) for the variables ROA, AKO and DER is 1.025; 1.023 and 1.030 so it is concluded that there is no multicollinearity. Autocorrelation test using Durbin-Watson test. shows the Durbin-Watson of 1.733 where this number is greater than dU and smaller than 4-dU, thus the autocorrelation variable in the research data. Heteroscedasticity test using the glejser test showed a significance value of 0.363; 0.125; and 0.306, all of which are greater than 0.05 so that it show0073 that there is no heteroscedasticity in the research data.

From all classical tests that have met the requirements, then a regression test is carried out. These results can be seen in the table below:

Table 2 Multiple Regression Analysis Result

Model	Unstandardized Coefficients		Standardized Coeffiecients		
	B	Std Error	Beta	t	Sig.
1 (Constant)	.869	.234		3.705	.001
ROA (X1_	6.588	1.640	.452	4.018	.000
DER (X2)	-0.04	.098	-046	-.407	.685
OFC (X3)	1.338	.429	.352	.352	.003

Source : SPSS

The results of the multiple regression test as above, the regression coefficient is generated so that the regression equation in this study can be formulated as follows:

$$Y = 0.869 + 6.88\ X1 - 0.040\ X2 + 1.338\ X3 + e$$

Based on the regression equation above, it can be seen that the value of the constant coefficient is 0.869. Therefore, if the value of the independent variables, namely Profitability (ROA), Operating Cash Flow (OFC (X3)) and Financial Leverage (DER) (X2)) used in this study is 0, then the magnitude of the constant will give a value for the dependent variable is Financial distress of 0.869. The regression coefficient of the Profitability variable ROA obtained is 6.588. The dependent variable Financial Distress will increase by 6.588 if Profitability increases by one unit with the assumption that the other independent variables are zero or constant. The regression coefficient value of the Profitability variable is positive, which indicates a positive effect from the Profitability variable on the dependent variable, namely Financial Distress. So in conclusion the probability has a significant effect on financial distress. The regression coefficient of the Financial Leverage (DER) variable obtained is -0.040. The dependent variable Financial Distress will decrease by -0.040 if the independent variable Financial Leverage increases by one unit with the assumption that the other independent variables are zero or constant. The regression coefficient value of the Financial Leverage variable is negative, which indicates that there is a negative influence of Financial Leverage on the dependent variable, namely Financial Distress. So, it means that financial distress does not influence financial distress. The regression coefficient of the Operating Cash Flow (OCF)) variable obtained is 1.338. Financial Distress will increase by 1.338 if the independent variable Operating Cash Flow increases by one unit with the assumption that the other independent variables are zero. The regression coefficient value of the Operating Cash Flow variable is positive, which indicates a positive influence from the Operating Cash Flow variable on financial distress. So, it can be said that operating cash flow has a significant effect on financial distress.

Conclusion

According on the output of research conducted, it was found that Profitability and Operating Cash Flow have a significant positive effect on Financial Distress, where the higher profitability and operating cash flow will increase profits and attract investors and minimize the risk of financial distress. It means, whether or not financial distress occurs is influenced by the high or low probability and operating cash flow. This study has a result similar to the previous research conducted by [7] where Profitability does influence Financial Distress. However, the results of research from [5], [6 [9], [14] and [11] show the opposite result that Profitability has negative influence on Financial Distress. This research has result that are similar to previous studies conducted by [13] and [14] where Operating Cash Flow has an influence on Financial Distress. However, the results of research from [12] and [11] show the opposite result that Operating Cash Flow does not influence Financial Distress. Meanwhile, Financial Leverage has no significant effect and has a negative direction on Financial Distress. This is because the data of companies that have a ratio of total debt more than total equity, which means the company is experiencing financial distress less than companies that have a ratio of total debt is smaller than total equity, which means the company is safe from financial distress. Where, in this study requires data on companies that tend to experience financial distress. Thus, financial leverage has no effect on financial distress. The results of this study are in line with the results of previous studies conducted by [8], [9], [6], [14], [9] and where Financial Leverage has no effect on Financial Distress. However, the results of research from [10] and [11] show the opposite result that Financial Leverage has an influence on Financial Distress. From these results, it can be concluded that the investment potential by investors on the basis of financial distress can be seen from the profitability and operating cash flow. To sum up, this study shows that leverage is a factor in the occurrence of financial distress, thus maintaining the level of leverage and debt policy must be a concern for companies, especially in mining companies that require large working capital and investment in their operations.

Limitation

There are several limitations that exist in this study: (1) The sector used in this study is not broad because it only includes mining companies; (2) Mining companies have a high risk which often experiences price fluctuations due to following world market demand.

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