DETERMINING VARIABLES OF FINANCIAL DISTRESS

Angela Dirman

Universitas Mercu Buana, Jakarta, Indonesia

Abstract: The research objective to be achieved is to provide understanding and knowledge to the public, especially investors and creditors, regarding the determinants of financial distress in retail companies in Indonesia and can be used as a reference for further researchers as well as a reference for stakeholders (investors, creditors and government) in making relevant and reliable decisions.

The method used is quantitative research with secondary data taken from the financial statement data of go public retail companies 2015-2019 with data collection techniques using purposive sampling method with criteria that have been determined by the researcher using a causal relationship design. Total samples obtained were as many as 74 samples. The data analysis used is multiple linear regression tests.

The results of this study show that leverage has a negative effect on financial distress, operating capacity has no effect on financial distress, and profit margin has a positive effect on financial distress.

Keywords: leverage, operating capacity, profit margin, financial distress

INTRODUCTION

Every company is founded with the hope that it will generate profits so that it can survive or develop in the long term and do not experience liquidity. But in reality, these assumptions do not always work out according to expectations or expectations. Often companies that have been operating for a certain period of time are forced to dissolve or be liquidated due to financial difficulties that have led to bankruptcy (Permana, Ahmar, & Djadang, 2017).

A company that experiences bankruptcy will begin with a condition where financial distress occurs. Generally, bankruptcy in companies is caused by the inability to manage the business so that the company experiences a decrease in earning. When this condition cannot be overcome, the company will be in financial distress (Handayani, Iskandar, & Yuvisaibrani, 2019). Financial distress is an interesting topic in the field of finance and financial health companies as an important indicator for users who are interested in knowing more about company performance (Pernamasari, Purwaningsih, Tanjung, & Rahayu, 2019). Information about financial distraction is used by parties who play an important role as an early warning (warning) of the presenting presentation. So that damage and even those who have an important role can make an effort to take part in an extremely destructive life.

The current condition of Indonesia is very prone to financial difficulties. CNBC Indonesia recorded several issuers on the Indonesia Stock Exchange (IDX) that were affected by the Covid-19 pandemic and had an impact on employee layoffs and laying off staff, and cutting employee salaries to survive. The retail business sector is one of the sectors affected by the Covid-19 pandemic. In addition to decreasing market demand, the components of fixed expenses, aka fixed costs, must also be paid by the company.

Chairman of the Indonesian Employers' Association (Apindo), Hariyadi Sukamdani, said groceries sales fell 45 percent in the first quarter of 2020 when compared to the same period last year. The clothing retail industry was the sector that was hardest hit during the pandemic. The growth is estimated to only be around 1.5-1.6 percent in 2020. Sales of clothing retail stores have fallen by 80 percent. This is because many shops have closed during the pandemic. According to the Chairman of Apindo, of the 45,000 SKUs (stock keeping units) only 20 percent contributed sales. The number of visitors to shops has also decreased by 50 percent during the pandemic resulting in a decline in sales in this sector. A number of retail stores began to implement efficiencies. One of them is by
cutting employee salaries.

A number of retailers in the clothing sector have indeed reported the devastating impact of the pandemic on their business. As conveyed by the management of PT Ramayana Lestari SentosaTbk (RALS) in their disclosure of information to the Indonesia Stock Exchange. Ramayana reports that the pandemic has forced companies to close a number of outlets. The company's revenue is estimated to fall between 51% and 75% compared to 2019. The pandemic also forced Ramayana to lay off 421 employees during the January to June period.

The decline in retail sales due to the pandemic is not only experienced by Indonesia. Globally, retail sales are expected to fall by 9.6%, or the equivalent of 2.1 trillion dollars, according to Forrester, a business research institute based in the UK. Forrester estimates, it will take four years for retailers to return to pre-pandemic levels.

According to Forrester, the impact of the pandemic on retail sales will vary widely in North America, Asia, Europe and Latin America. For the United States, retail sales will decline by 9.1%, or the equivalent of 321 billion USD. Asia Pacific will decline by about 10% or the equivalent of 767 billion USD. China will be the country with the largest decline in retail sales to 192 billion USD in January and February alone, compared to the same period the previous year.

China, the world's largest consumer country, reported retail sales during May of minus 2.8 percent, according to China's Central Statistics Agency. However, the retail sales figure, which is a key indicator of consumption, has improved compared to April, which recorded minus 7.5 percent.

Likewise, the United States, one of the countries with the largest consumers in the world, also recorded a decline in retail sales by minus 8.7% in March. This is the biggest month-to-month decline since the US Statistics Agency began recording the retail census. On a year-on-year basis, the decline has reached minus 6.2%.

A similar fate has also befallen Singapore, which is often seen as a barometer of the Southeast Asian economy. Singapore retail sales in March fell to their lowest level in 22 years. Retail sales fell by minus 13.3% year on year, according to the Department of Statistics (SingStat). According to Reuter's calculations, this is the lowest drop since September 1998, when retail sales fell by minus 16.9%. Sales of clothing and footwear recorded the largest decline by 41.6% year on year.

The above phenomenon shows that the financial difficulties experienced by retail companies are of great concern. To minimize the risk of bankruptcy, companies need to conduct a bankruptcy prediction analysis to predict the presence or absence of potential corporate bankruptcy and to analyze the determinants of financial distress. The ability to predict bankruptcy will benefit many parties, especially creditors and investors.

According to Ratna & Marwati (2018), there are several indicators to find out the signs of financial difficulties seen from the internal side of the company, namely, a decrease in sales volume, a decrease in the company's ability to make profits, and a very large dependence on debt. On the other hand, several indicators are used to identify signs of financial distress seen from external parties, namely a decrease in the amount of dividends distributed to shareholders for several consecutive periods, a continuous decline in profits and the company experiencing losses, closing or selling one or more units business, massive layoffs of employees, and prices in the market began to decline steadily.

Financial indicators in this study are leverage, operating capacity and profit margin. Leverage ratio is the ratio used to measure the extent to which company assets are financed from debt (Kasmir, 2016). Leverage shows an influence on investment rates and investment opportunities in companies where the level of debt from a company will indirectly affect investor interest and confidence in investing (Rohmadini, Saifi, & Darmawan, 2018). High and low corporate debt will affect the size of the risk of financial distress that will be borne by the company.

Rohmadini et al., (2018), Hanifah & Purwanto (2013) and Curry & Banjarnahor(2018) in their research found that leverage has a negative effect on financial distress, while the results of research from Bernardin & Tifani (2019) in their research found that there was no effect of leverage on financial distress.
Operating capacity is also called the efficiency ratio; this ratio is calculated by the total asset turnover, that is, by comparing the total sales with the total assets owned by the company. This ratio shows the total asset turnover measured by sales volume in other words how far the ability of all assets to create sales (Ratna & Marwati, 2018). If sales are high, the risk of financial distress is very low.

Research conducted by Yudiawati & Indriani (2016) states that total asset turnover has a negative and significant effect on the risk of financial distress in a company, where the higher the company's TATO, the lower the risk of the company experiencing financial distress. The results of this study are in line with the research of Kartika & Hasanudin (2019) and Ratna & Marwati (2018) that the total assets turnover ratio (TATO) has a negative and significant effect on financial distress. The high activity ratio, which is proxied by the total asset turnover ratio, shows the high effectiveness of the company in using its assets to generate revenue in the form of sales. In relation to financial distress, the high effectiveness of the company in using assets will result in a lower possibility of financial distress in the company concerned because the company is able to generate sales that are greater than the assets it invested in.

Profit margin is also one of the factors that affect financial distress. Profit margin calculates the extent to which the company's ability to generate net profit at a certain sales level (Kasmir, 2016). This ratio can be interpreted as the company's ability to reduce costs (a measure of efficiency) in the company. Profit margin can be used to predict financial distress conditions, because the size of the profit margin will affect the possibility of a company experiencing financial distress. Companies that produce low profit margins continuously result in losses which eventually cause financial difficulties, because the costs incurred are too high while the resulting profits are lower.

Research conducted by N. Putri & Mulyani (2019) shows that profit margins, which are proxied by net profit margins, have a negative and significant effect on financial distress, which means that the higher the profit margins, the lower the likelihood of financial distress. Companies that generate high profit margin values prove that the company has a good performance in generating profits. Therefore, profit margin is one of the factors that influence financial distress. However, this study is not in line with the research of Ratna & Marwati (2018), who found that the profit margin was not able to influence financial distress because the sample companies still had sufficient equity to bear the risk and also had large total assets and were still able to control their burdens. profit margin does not really affect financial distress.

LITERATURE REVIEW

Signal Theory

Signal theory is an action taken by company management to provide guidance to investors on how management assesses the company's prospects. The management will try to improve the company's performance where by increasing the performance, the company's profit will also increase. Signal theory provides information to external parties about the future condition of the company. Information provided by the company can be in the form of good news such as good company condition, earnings announcements, increased sales, dividend distribution and bad news information can be in the form of company losses so that it cannot distribute dividends, decreased sales, or too much company debt which increases the risk of bankruptcy. Therefore, signal theory is used to provide signals to managers about good and bad information for the company so that a manager can take action or quick steps in solving problems, especially financial distress problems that arise in a company.

The effect of Leverage on financial distress

Leverage is the ratio used to measure the extent to which company assets are financed from debt (Kasmir, 2016). High and low corporate debt will affect the size of the risk of financial distress that will be borne by the company. If a financing company uses debt more, this is at risk of repayment difficulties in the future because the debt is greater than the assets owned. If this situation cannot be handled as well as possible, the potential for financial distress will be even greater (Idawati, 2020).

Syuhada & Muda (2020) in their research found that leverage has a negative effect on financial distress, which means that if the company's leverage value is high, the company's financial distress value will be low, the lower the company's financial distress value, the higher and the risk of bankruptcy that will occur.
The following hypotheses are proposed:
H1: Leverage has a negative effect on Financial Distress.

The effect of Operating Capacity on financial distress

Operating capacity or activity ratio is a ratio which is also known as the efficiency ratio which is used to assess whether a company is effective or not in using its assets to generate sales, so that it will result in the accuracy of a company's operational performance. The high effectiveness of the company in using assets will cause a lower possibility of financial distress in the company concerned because the company is able to generate sales that are greater than the assets it invested. Operating capacity in this study is measured using total asset turnover. A high operating capacity indicates the more effective the company is in using its assets to generate sales. Companies that are increasingly effective in using their assets to generate sales are expected to provide greater profits for the company (Dewi & Dana, 2017).

The results of research conducted by Jariyah & Budiarti (2019) state that total operating capacity has a positive effect on financial distress. The effectiveness of total asset turnover will indicate the better the financial performance achieved by the company so that the possibility of bankruptcy will be smaller.

The following hypotheses are proposed:
H2: Operating Capacity has a positive effect on Financial Distress.

The effect of Profit Margin on financial distress

Profit Margin is a measurement indicator used by management in the company's sales profit. Profit margin calculates the extent to which the company's ability to generate a certain return on sales (Kasmir, 2016). The profit margin ratio can be one of the considerations for external parties in making decisions related to a company. The greater this ratio, the better the company's performance. The size of the value of the profit margin will affect the possibility that the company will experience financial distress or not. Research conducted by Putri & Mulyani (2019) shows that net profit margin affects financial distress. The following hypotheses are proposed:

H3: Profit Margin has a positive effect on Financial Distress

RESEARCH METHOD

Definition and Operationalization of Variables

Dependent variable

This study uses the almanzscore model for public manufacturing companies as in the research Pernamasari et al (2019). Where shares or shares of a company are traded openly or listed on a stock exchange. The formula used is as follows:

\[ Z = 1.2 \times X1 + 1.4 \times X2 + 3.3 \times X3 + 0.6 \times X4 + 1.0 \times X5 \]

Information:

- \( Z \): Bankruptcy Index
- \( X1 \): Working Capital/Total Assets
- \( X2 \): Retained Earnings/Total Assets
- \( X3 \): Earning Before Interest and Taxes/Total Assets
- \( X4 \): Market Value of Equity/Book Value of Debt
- \( X5 \): Sales/Total Assets

Independent Variable

Leverage
Leverage is the ratio used to measure the extent to which the company's assets are financed with debt. The ratio used in this study is the Debt to Equity Ratio (DER) with calculations (Kasmir, 2016):

\[
DER = \frac{\text{Total Debt (Debt)}}{\text{Total Equity (Equity)}}
\]

Operating Capacity

The activity ratio is defined as a measure of the company's asset management ability. In this study, the activity ratio is proxied by total assets turnover, namely the ratio between sales and total assets.

Total Asset Turn Over ratio = Sales / Total Assets

Profit margin

The profit margin ratio is a measure of management's ability to control operating costs in relation to sales. The lower the operating cost per rupiah of sales, the higher the margin you get. The profit margin ratio can also describe the company's ability to determine the selling price of a product, relative to the costs incurred to produce the product.

\[
NPM = \frac{\text{Net Profit After Tax}}{\text{Net Sales}}
\]

Population and Research Samples

The population of this research is retail companies listed on the Indonesia Stock Exchange. The samples used in this study are retail companies listed on the IDX during 2015-2019. The sampling method used was purposive sampling, namely sampling based on the criteria of companies listed on the IDX consistently in 2015-2019. In this study, a total sample of 74 samples was obtained.

Analysis Method

In testing the hypothesis proposed in this study. The researcher uses the method of multiple linear regression analysis because of the relationship between two or more independent variables where previously the classical assumptions were made in the first stage.

Classical Assumption Test

This analysis can also be referred to as a prerequisite test of the multiple linear regression model to be tested. A good regression model must produce the best unbiased linear estimator (Best Linear Unbias Estimator / BLUE). This condition will occur if it is fulfilled by several assumptions called classical assumptions including normality test, multicollinearity test, heteroscedasticity test, autocorrelation test.

The regression model in this study is stated as follows:

\[
Z - \text{score} = \alpha + \beta_1\text{DER} + \beta_2\text{TATO} + \beta_3\text{NPM} + e
\]

Results and Discussion

Results

a. Classical Assumption Test

Normality test
Kolmogorov-Smirnov One Sample Results

One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>N</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Normal Parameters</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
</tr>
<tr>
<td></td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.267</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.081</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.

The above table shows that the Kolmogorov-Smirnov value is 1,267 and the Asymp value. Sig. (2-tailed) of 0.081. Because the Asymp value. Sig is greater than the significance level of 0.05 (0.081> 0.05), it can be concluded that the residual data in this regression model is normally distributed.

Multicollinearity Test, Heteroskedasticity Test, Autocorrelation Test

There is no multicollinearity among the independent variables. Then there is no multicollinearity between the independent variables. Based on the scaterplot chart the points spread randomly showing that there was no heteroscedasticity. From the autocorrelation test can be concluded that the regression model used is free from the problem of autokoleration.

Hypothesis testing

Determination Coefficient Test

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.837*</td>
<td>.700</td>
<td>.687</td>
<td>2.253222488</td>
<td>1.814</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), NPM, TATO, DER
b. Dependent Variable: ZSCORE

The table above shows that the coefficient of determination which shows the R-square value is 0.700. This means that 70.0% of the variation in financial distress can be explained significantly by variations in leverage (DER), operating capacity (TATO), and profit margin (NPM). Meanwhile (100% - 70.0%) = 30.0% the amount of financial distress can be explained by other variables.

F Test

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>Regression</td>
<td>830.082</td>
<td>3</td>
<td>276.694</td>
<td>54.499</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>355.391</td>
<td>70</td>
<td>5.077</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1185.473</td>
<td>73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: ZSCORE
b. Predictors: (Constant), NPM, TATO, DER
Based on the data above, a significant value of 0.000 was obtained. Because the significance is less than 0.05 or 5%, it can be concluded that the data in this study can be accepted.

**T Test**

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.739</td>
<td>.906</td>
<td>4.126</td>
</tr>
<tr>
<td></td>
<td>DER</td>
<td>-.367</td>
<td>.177</td>
<td>-.149</td>
</tr>
<tr>
<td></td>
<td>TATO</td>
<td>.291</td>
<td>.417</td>
<td>.049</td>
</tr>
<tr>
<td></td>
<td>NPM</td>
<td>53.695</td>
<td>4.780</td>
<td>.790</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ZSCORE

From the test results above, it can be concluded as follows:

1. The test results of the leverage variable as proxied by the debt to equity ratio obtain a regression coefficient of -0.367 with a significance value of 0.042 < 0.05, this indicates that the debt to equity ratio has a negative effect on the z-score value.
2. The test results of the operating capacity variable, which is proxied by total asset turnover, get a regression coefficient value of 0.291 with a significance value of 0.489, because the significance value is greater than the probability value 0.05 (0.489 > 0.05). It can be concluded that the total asset turnover has no effect on the z-score.
3. The test results of the net profit margin variable obtain a regression coefficient of 53.695 with a significance value of 0.000 < 0.05, this indicates that the net profit margin has a positive effect on the z-score value.

**Multiple Regression Analysis Test Results**

**Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>B</td>
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<td>NPM</td>
<td>53.695</td>
<td>4.780</td>
<td>.790</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ZSCORE

Based on the table of multiple linear regression test results, the regression equation is obtained as follows:

\[ Z\text{score} = 3.739 + (-0.367\text{DER}) + 0.291\text{TATO} + 53.695\text{NPM} + e \]

**Discussion**

**The Effect of Leverage on Financial Distress**

The test results show that the leverage measured using the Debt to Equity Ratio (DER) has a negative effect on the z-score value. That is, the higher the leverage value, the lower the Z-score, which means that the possibility of the company experiencing financial distress is higher. If a financing company uses debt more, this is at risk of repayment difficulties in the future because the debt is greater than the assets owned. This is because the large
amount of equity owned by the company is not able to guarantee the debt owned by the company. If this situation cannot be resolved properly, it can put the company at risk of bankruptcy.

The results of this study are in line with research conducted by Sari & Hartono, (2020) which found that leverage has a negative effect on financial distress.

**The Effect of Operating Capacity on Financial Distress**

The results showed that the Operating Capacity variable measured using Total Asset Turn Over (TATO) had no effect on financial distress. This is because, the research sample in this go public retail company, the average sales value of total assets in the descriptive test is very high, namely 211.44%. This means that most of the sample companies use their assets to generate sales, but the profits obtained are not as expected, some sample companies even experience losses because the value of the burden is too large than the value of sales. So the higher or lower the operating capacity of a retail company going public cannot guarantee that the company will avoid financial distress.

The results of this study are in line with research conducted by Idawati (2020) and Ramadhani & Nisa (2019) who obtained the results that operating capacity has no effect on financial distress.

**The Effect of Profit Margin on Financial Distress**

The test results show that the profit margin measured using Net Profit Margin (NPM) has a positive effect on the $z$-score value. This means that the higher the value of the profit margin, the higher the $Z$-score, which means that the company is likely to experience financial distress is lower. This is because in the sample companies, the net income generated from sales is very influential in determining which companies are at risk or not for bankruptcy.

The results of this study are in line with research conducted by Idawati (2020) and Claudia, Khairunnisa, & Nurbaiti (2017) who found that profit margins have a positive effect on financial distress.

**Conclusion**

Based on the results of the analysis and discussion described in the previous chapter, the conclusions of this study are as follows:

1. Leverage has a negative effect on financial distress
2. Operating Capacity has no influence on financial distress.
3. Profit Margin has a positive effect on financial distress.

**Suggestions**

In the research that has been done, there are still several limitations. Based on the results of the conclusions, there are suggestions that can be given, including:

1. For further researchers, because the research results on the operating capacity variable show that the company does not experience financial distress on the sample that has been carried out, it is recommended to retest with another sample because it is not in accordance with the applicable theory.
2. For retail companies, it is expected to pay attention to factors that can result in the company's financial distress, so that if there is an indication that the company is experiencing financial distress, the company can quickly take action to improve the company's financial condition.

**BIBLIOGRAPHY**


