THE DETERMINANTS OF COMPANY’S FINANCIAL DISTRESS

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ABSTRACT
An economic recession like the current one due to the global pandemic is causing financial difficulties for many companies. Nowadays it is important for companies to be aware of and observe their financial condition. Financial distress is a bad condition impression of a company when the company is no longer able to generate sufficient income or profit, so that its financial obligations cannot be paid. Financial distress is an early symptom of corporate bankruptcy. This study aims to obtain empirical evidence about the effect of profitability, size of the board of directors, and institutional ownership on financial distress. The companies used in this study were 63 companies taken from the various industrial sectors and the basic & chemical industrial sector listed on the Indonesia Stock Exchange in 2017-2019. Purposive sampling was used in this study to determine the sample. Multiple regression panel data and the EViews 11 application are used as data analysis tools. Some of the tests carried out were multicollinearity test, Chow test, Hausman test, t test and coefficient of determination test. The results showed that profitability, board of director’s size and institutional ownership have affecting significantly on financial distress.

Keywords: profitability, board of director size, institutional ownership, financial distress

1. INTRODUCTION

The performance of a company is strongly influenced by economic conditions during the period. This can cause problems, if the company cannot adapt properly which can lead to company bankruptcy, which is marked by the company experiencing financial difficulties. Financial distress and bankruptcy impact companies and the business world every day (Manzaneque et al., 2016) [1].

This time, the pandemic effect of the Covid-19 outbreak has hit the whole world. In Indonesia, many companies have difficulty in carrying out their operational activities. If the company does not immediately identify the factors causing the weakening of the company’s financial performance and take action to deal with the problem, the company will potentially experience signs of bankruptcy, namely financial difficulties.

In recent years, there have been many companies experiencing financial difficulties in Indonesia and trying to deal with these conditions in various ways. In the various industrial sector companies and the basic & chemical industry sector, there are several companies that have experienced negative profits in the last few years seen from 2017-2019. Company Argo Pantes Tbk. (ARGO) suffered a loss in 2017 of Rp14,871,847, in 2018 a loss of Rp8,186,633, and in 2019 a loss of Rp7,277,027. Berlina Tbk Company. (BRNA) suffered a loss in 2017 of Rp178,283,422,000, in 2018 Rp23,662,406,000, and in 2019 a loss of Rp163,083,992. Company Jakarta Kyoei Steel Works Tbk. (JKSW) suffered a loss in 2017 of IDR 3,925,258,889, in 2018 a loss of IDR 48,588,147,020, and in 2019 a loss of IDR 1,391,297,992 (www.idx.co.id) [2].

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Financial difficulties can occur due to errors in making inappropriate decisions and the weakness of the management directly or indirectly and the lack of strict supervision of the financial condition of the company. The existence of financial weakness can push the company towards bankruptcy or forced liquidation.

The financial statements published by the company are a source of information regarding the company's performance, financial position, and changes in the company so that it can be a reference for management to make decisions in the future. In addition, the purpose of this financial report is to predict whether the company is experiencing financial distress.

The occurrence of financial distress is influenced by various factors, one of which is profitability. Return on Assets (ROA) is one of the profitability ratios that describes the company's ability to utilize the company's assets to earn a profit. The movement of a profit can provide relevant information about the condition of the company. The success of a company in its operations can be indicated by the high profits earned. Conversely, if the profit generated is low or even suffers a loss, the company is described as experiencing financial distress.

Another factor that has the potential to cause financial distress is corporate governance. Corporate governance is very important in an effort to maximize the efficiency of the company's financial performance. This includes the relationship between the board, shareholders, company management and other related parties. In this case, it is focused on performance management activities and performance monitoring. (Putra et al., 2020) [3]. The size of the board of directors in the company plays a significant role in determining the company's performance. With many or few people in the company's ranks, in running the company and in making decisions, the board of directors has a very important role. The board of directors is a group of individuals elected by the company's shareholders to represent the company's interests and ensure that the company's management acts on their behalf. They usually meet periodically to set policies for management and also for company oversight. Board of director members are selected in the General Meeting of Shareholders. The Board Directors has full responsibility for the entire operation of the company and manages the company as well as possible in order to achieve company goals. They are also responsible to build collaboration between the company and third parties related to the company, such as customers, suppliers, regulatory agencies, and so on. Because directors have such a great responsibility, they can be said to have significant rights in controlling and managing company resources and funds from investors.

In addition to the size of the board of directors, which is still related to corporate governance, institutional ownership of shares is also one of the things that affect the company's performance. Institutional ownership is the percentage of share ownership owned by the institution. Institutions can play an important role in the management of the company if the corporate governance system does not work properly, it can make the company experience financial difficulties.

The objective of this study is to investigate and find academically valid evidence about the impact of profitability, board size, and institutional ownership on financial distress.

This research is expected to be an input for companies to reduce the level of financial distress, and for investors to find out what factors can affect the occurrence of financial distress.
2. RESEARCH METHOD

Agency theory explains the relationship between principal and agent, which are two conflicting economic actors because they have their own interests. Jensen and Meckling (1976, in Widiastuti & Suryandari, 2016) [4] state that the agency relationship appears as a contract in which one or more people (principal) involve another person (Agent) to take action in accordance with the wishes of the principal. Principal and agent can support each other, if they have the same goal. Agency problems can also occur because of information asymmetry between the owner and management of the company. The existence of information asymmetry can be an opportunity for managers to take action regarding financial performance. When financial difficulties occur, management is expected to be able to take appropriate steps to overcome these difficult conditions. The company will carry out earnings management policies if there is an increase in financial distress in the company. According to Udin et al. (2017) [5] agency and property rights theory predicts that dispersed institutional ownership shall improve the corporate governance quality and reduce the possibility of company collapse. In addition, by using agency theory, the company's financial performance can be improved by separating ownership and control structures related to the manager's performance in generating a profit that can benefit investors.

According to (Brigham & Houston, 2019) [6], “signal theory is an action taken by company management to provide direction or instructions to investors on how management views the company's prospects in order to make the right decisions.” Financial distress conditions can provide a signal to the company's main stakeholders such as management, shareholders, and creditors. This theory explains that companies have the urge to provide information to investors. This is because there is information asymmetry between the company and investors where managers have more detailed information so they can control the information, so this is an opportunity where managers can do moral hazard with the aim of maximizing the company's financial performance. This is done to reduce the level of financial distress that occurs in the company. Novianita (2017) [7] argues that the company continues to try to disclose information that according to the manager's consideration can be of interest to investors, especially for good news. The good news that is conveyed is usually like the company getting profitability or the distribution of dividends. Vice versa, if the company conveys bad news signals about the company's financial distress, then in this case it can provide an opportunity for the company's external parties to take an important role in carrying out corporate governance to make policies quickly and precisely in overcoming the company's problem conditions. This is done as a participation to reduce the chances of the company going bankrupt.

Plat and Platt (2002) in (Widiastuti & Suryandari, 2016) [4], define financial distress as the stage of declining financial condition before experiencing bankruptcy or liquidation. Ross et al. (1999) in (Pramudena, 2017) [8] defines financial distress as a condition where a company experiences financial difficulties and cannot fulfill its financial obligations. So financial distress is a condition of a company that is experiencing financial difficulties. Before the occurrence of bankruptcy in a company, the company will first experience a condition called financial distress. Financial distress is a concept of financial constraints because of obstacles that can have an impact on the decline in financial conditions experienced by a company. This can occur due to errors in making decisions that are not appropriate and the weaknesses of both the management, either directly or indirectly, as well as less strict supervision of the company's financial condition that causes financial difficulties, which can push the company towards bankruptcy or forced liquidation. The financial health of the company is the hope of
all parties involved, especially the company owners and management. Each party must of course work hard according to their field of work in order to be able to bring the company always in good financial condition and able to make profits (Fitriyah et al., 2020) [9].

Hanafi & Halim, (2012) [10] explain that ROA is a measuring tool to indicate the company's ability to produce profits through total assets. The higher the ROA value indicates the existence of a larger profits. On the other hand, a low ROA ratio indicates a low company profit. The step of calculating ROA used is net income divided by total assets. Where net profit in question is profit after deducting taxes. Hery (2016, p. 193) [11] explains that the higher the value of this ratio, the company is said to be in a healthy condition because it can carry out its operational activities well, while if the value of this ratio is low, the company is concluded to be in financial distress.

According to the Big Indonesian Dictionary, Board size is the number of members of the board of directors in a company. It is this board of directors that carries out the company's operations effectively and is accountable to shareholders. Board Size is defined as the number of executive directors and non-executive directors on the board of directors (Nasir & Ali, 2018) [12]. Board size is the sum of the number of boards of directors in a company. In addition, board size also makes strategies and policies within the company and has access to accurate, relevant, and timely information. The problem of control and ownership in a company becomes a problem in the company, with the board of directors it is expected that the board of directors can act as a structure that will monitor managers and controllers to increase the value of the company (Jensen & Meckling, 1976) in (Freitas Cardoso et al., 2019) [13].

Institutional ownership is the percentage of shares whose ownership is owned by legal entities and financial institutions (Brigham & Houston, 2016) [14]. According to (Haq et al., 2016) [15] Institutional ownership functions as a party that oversees the company's performance. This will help in reducing agency problems because the institution as a shareholder will assist in the supervision of the company so that there is no opportunity for the management to carry out actions that are detrimental to the shareholders. In agency theory, institutional ownership will help in reducing agency problems in a company because the large number of shares obtained by the institution will help in supervising the company so that management can work well and not act that can harm the shareholders. The existence of the institution as a shareholder will encourage managers to act more attentively to the interests of the institution as a shareholder, thereby reducing agency costs (Tumiwa & Mamuaya, 2018) [16].

Profitability is the company's ability to generate profits. If profitability is high, the company is able to generate higher profits. High profitability illustrates that the company is more efficient and the expenses incurred by the company can be minimized properly, so that the company's profit is increasing. From the profit generated, the company can allocate the profit as operational funding and can also distribute the profit to investors. With sufficient funds, the possibility of the company experiencing financial distress will be smaller (Kusanti & Andayani dan Andayani, 2015) [17]. This situation is an encouraging signal to external parties that the company is not in a troubled financial condition. This is in line with the statement of (Geng et al., 2015) [18] that with the weakening of profitability from time to time the company can experience financial distress or bankruptcy. Previous research conducted by (Pratama, 2016) [19] and (Al-Khatib & Al-Horani, 2015) [20] showed that profitability had a significant effect on financial distress.
The results of other research conducted by (Dirman, 2020) [21], (Yudhistira, 2019) [22], and (Christine & Apriliana, 2021) [23] which explain that ROA has a positive influence and has a significant effect on financial distress. This study is not in line with (Rohmadini et al., 2018) [24] and (Marfungatun, 2017) [25] who explain that ROA has a positive influence and does not have a significant effect on financial distress.

The effect of board size on financial distress has not yet obtained final results. A large board size in one company is expected to have effective management so that it will have an impact on improving financial performance. Vice versa. This supports the existence of agency theory. The results of research conducted by (Manzaneque et al., 2016) [1] and (Baklouti et al., 2016) [26] stated that board size does not have a significant effect on financial distress. The results of this study are inversely proportional to the research of (Younas et al., 2021) [27] and (Mariano et al., 2021) which state that board size has a negative and significant effect on financial distress. Hardikasari (2011) [28] says that companies with large board sizes cannot coordinate, communicate, and make better decisions than companies with smaller boards. The results of (Nasiroh & Priyadi, 2018) [29] are not in line with the results of previous studies, the results of this study indicate that board size has a positive and insignificant effect on financial distress.

Institutional ownership makes company management pay attention to company performance, so that it can reduce the actions of self-serving management. The greater the institutional ownership, the more efficient the use of company resources so as to prevent financial distress conditions. The monitoring function carried out by institutional owners will make the company more efficient in the use of assets as company resources in its operations. With the supervision of institutional owners, management decisions will always be better, more responsible, and more in favor of the interests of the owners so as to prevent the company from making mistakes in choosing strategies that can cause losses for the company. Research from (Udin et al., 2017) [5], (Novianita, 2017) [7], and (Widiastuti & Suryandari, 2016) [4] states that institutional ownership does not have a significant effect. However, the results of this study are not in line with the research of (Septiani & Dana, 2019) [30] and (Haq et al., 2016) [15] who argue whether institutional ownership has a significant negative effect on financial distress. The framework of thinking in this research is described below:

**Figure 1. Research Design**

Based on the theory and the relationship between variables as described above, the hypothesis in this study is formulated as follows:

H1: Profitability has a negative effect on financial distress.
H2: Board Size has a negative effect on financial distress.
H3: Institutional Ownership has a negative effect on financial distress.
The population in this study are various industrial sector companies and basic & chemical industry sectors listed on the Indonesia Stock Exchange during the 2017-2019 period. The sample selection technique used purposive sampling with the following criteria: (1) Manufacturing companies in the various industrial sectors and the basic & chemical industry sectors listed on the IDX during the 2017-2019 period, and (2) Manufacturing companies in the various industrial sectors and the basic & chemical industry sectors that provide the data needed in this study during the 2017-2019 period. The objects in this study are Profitability, Board Size, Institutional Ownership, and Financial Distress. Data analysis was carried out with the help of EViews 11 software. The tests carried out were multicollinearity assumption test, panel data regression estimation (Chow, Hausman, and Lagrange test), partial test, and coefficient of determination test.

Financial distress as the dependent variable is measured by the “Altman Z-score” model (Younas et al., 2021) [27].

\[ Z = 1.2 \times X_1 + 1.4 \times X_2 + 3.3 \times X_3 + 0.6 \times X_4 + 1.0 \times X_5 \]

whereas:
- \( X_1 \): Working Capital/Total Asset
- \( X_2 \): Retained Earning / Total Asset
- \( X_3 \): Earnings before Interest and Taxes (EBIT)/Total Asset
- \( X_4 \): Market Value of Equity / Book Value of Debt
- \( X_5 \): Sales Revenue / Total Asset

In this study, profitability is proxied by the Return On Asset (ROA) ratio, which compares net income with the average total assets owned by the company (Christine & Apriliana, 2021) [23]:

\[ ROA = \frac{Net \, Income}{TA} \]

Board size is measured by the number of boards of directors in the company (Manzaneque et al., 2016) [1]:

\[ Board \, Size = \sum \, Number \, of \, Board \, Members \]

Institutional Ownership is measured using the percentage of share ownership owned by the institution compared to the number of shares outstanding (Novianti, 2017) [31]:

\[ Institutional \, Ownership = \frac{\sum \, Institutional \, Shares}{\sum \, Outstanding \, Shares} \times 100\% \]

3. RESULTS AND DISCUSSION

Multicollinearity testing was conducted to determine whether there was a strong correlation between the independent variables in a regression model. In a good regression model, multicollinearity should not occur. The test results are shown in Table 1 below:
Table 1. The Result of Multicollinearity Test

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>Institutional Ownership</th>
<th>Board Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000000</td>
<td>-0.007659</td>
<td>0.017390</td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>-0.007659</td>
<td>1.000000</td>
<td>0.006547</td>
</tr>
<tr>
<td>Board Size</td>
<td>0.017390</td>
<td>0.006547</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

If the correlation coefficient between the two independent variables exceeds the value of 0.8, it indicates that there is multicollinearity in the model. Based on the results of the multicollinearity test in Table 1 above, it can be seen that there is no correlation coefficient greater than 0.8. So, the conclusion obtained is that in the variables of Profitability (ROA), Institutional Ownership, and Board Size, there is no multicollinearity.

In panel data-based research, there are three regression models, namely: Random Effect Model (REM), Common Effect Model (CEM), Fixed Effect Model (FEM), and to determine the model that best fits the research data, three tests were carried out: Chow, Hausman, and Lagrange Multiplier.

The Chow test is a test carried out to select the best panel data regression model to use between the common effect model or the fixed effect model using the following hypothesis:

\[ H_0 : \text{Common Effect Model} \]
\[ H_a : \text{Fixed Effect Model} \]

The probability used in this study is 5%. If the probability value of the test results is less than 5%, then \( H_0 \) is rejected and \( H_a \) is accepted. The result of Chow Test showed in Table 2.

Table 2. Chow Test Result

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>13.806294</td>
<td>0.0000</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>392.046747</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

From the results of the Chow test in the Table 2, a probability value of 0.0000 is obtained where this value is smaller than 0.05, so \( H_0 \) is rejected. Based on the results of this test, the best model based on the results of the Chow test is the fixed effect model. Furthermore, it is necessary to re-test using the Hausman test to determine the best model between the fixed effect model and the random effect model.

Hausman test is a test conducted to select the best panel data regression model among fixed effect models or random effect models. The hypothesis in this test is:

\[ H_0 : \text{Random Effect Model} \]
\[ H_a : \text{Fixed Effect Model} \]

The probability used in this study is 5%. If the probability value of the test results is less than 5%, then \( H_0 \) is rejected and \( H_a \) is accepted.
Table 3. Hausman Test Result

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>25.551300</td>
<td>3</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Based on the results of the Hausman test in Table 3. above, the probability value of a random cross section is 0.0000. The probability value is less than 0.05, so H₀ is rejected. So, based on the results of the Hausman test, the best model is the Fixed Effect Model.

From the two tests of chow test as well as Hausman tests, it is found the most suitable model is fixed-effect model. Therefore, The Lagrange Multiplier test is no longer needed and the most suitable estimation for research data is the fixed effect model.

After conducting several tests in this study consisting of the Chow test, and the Hausman test to obtain the best estimation of the panel data regression model, it can be concluded that the most appropriate regression model to be used in this study is the fixed effect model.

Subsequently, a partial test (t-test) was conducted to determine the effect of the independent variables, namely profitability (ROA), board size, and institutional ownership on the dependent variable, namely Financial Distress. In the t-test, if the probability value of each independent variable is less than the significant level of 0.05 (5%) then H₀ will be rejected. This can be interpreted that the independent variable has a significant effect on the dependent variable. Conversely, if the probability value of each variable is more than a significant level of 0.05 (5%) then H₀ will be accepted. That is, the independent variable does not have a significant effect on the dependent variable. The following is a table of results from the partial test (t-test):

Table 4. The Results of t-Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>5.038835</td>
<td>11.52118</td>
<td>0.0000</td>
</tr>
<tr>
<td>Board Size</td>
<td>-0.079211</td>
<td>-170.3758</td>
<td>0.0000</td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>-0.640067</td>
<td>-3.003135</td>
<td>0.0032</td>
</tr>
</tbody>
</table>

From the results of statistical analysis as shown in Table 4, the Prob value of ROA is 0.0000, which is a value smaller than 0.05, which means that ROA has a significant effect on financial distress. The ROA coefficient has a value of 5.038835 (positive). The coefficient value means that ROA has a positive influence on Financial Distress. The positive effect of ROA means that the greater the ROA value, the greater the occurrence of financial distress.

From the results of statistical processing in Table 4., the Prob Board Size value is 0.0000, which is smaller than 0.05, which means that the board size variable has a significant effect on financial distress. The coefficient value of the board size is -0.079211 (negative). The coefficient value with a negative direction means that the board size has a negative effect on Financial Distress. This means that if the value of the Board Size increases, financial distress will decrease.
From the results of statistical analysis in Table 4., the Prob value for Institutional Ownership is 0.0032, where this value is smaller than 0.05, where this is an indication that the variable of institutional ownership affects financial distress significantly. The coefficient value of institutional ownership is negative at -0.640067. This means that institutional ownership has a negative effect on financial distress. The understanding of the negative effect is that if the number of shares owned by institutional increases (decreases), then financial distress will decrease (increase).

The determination coefficient test was conducted to find out how big the contribution of the independent variable was in explaining the dependent variable. The value of the coefficient of determination is reasonable between 0 to 1. The value of the coefficient of determination which is getting closer to 1, indicates that the independent variable has a large contribution in explaining the dependent variable. The output of the coefficient of determination test is shown in the table below:

<table>
<thead>
<tr>
<th>Table 5. The R² Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
</tr>
<tr>
<td>Adjusted R-Squared</td>
</tr>
</tbody>
</table>

From the output of the coefficient of determination in Table 5. above, the value of 0.865652 is obtained. It can be concluded that the contribution of ROA, board size, and institutional ownership is 86.5652% and the remaining 13.4348% is influenced by other independent variables outside this study.

4. CONCLUSIONS AND SUGGESTIONS

From the statistical test result above, ROA has a regression with a positive and significant direction on the dependent variable financial distress where the coefficient value is 5.038835 and the probability value is 0.0000. The probability value of the t-statistics is less than 0.05. Based on the findings in this study, the hypothesis H1 is accepted. ROA in this study shows the greater the company's ability to generate profits, the higher the risk of the company experiencing financial distress. This can happen because some companies with high profits cannot control the costs or expenses that come out and there are not sufficient funds to cover expenses so it is feared that the company will fall into financial difficulties. The findings of this study are similar to (Dirman, 2020) [21] and according to (Yudhistira, 2019) [22] who explained that profitability proxied into ROA has a significant effect on financial distress. This study is different from the results of research by (Rohmadini et al., 2018) [24] which explains that there is no significant effect of profitability proxied into ROA on financial distress.

The board size variable shows a negative and significant direction on the dependent variable financial distress with a coefficient value of -0.079211 and a probability value of 0.0000 where the probability value of the t-statistic is smaller than 0.05. Based on the results of this study, it can be seen that H2 is accepted. Board Size has a negative effect on Financial Distress. This means that if the board size is large, financial distress will decrease. A large board size will enrich the company's resources because the board of directors is a group of people who have knowledge, experience, ideas, and professional contracts that tend to make the company's finances more effective and can reduce the level of financial distress. Vice
versa, a small board size will be relatively difficult to carry out effective management so that it can increase the level of financial distress. This study is in line with the research of (Younas et al., 2021) [27] and according to (Mariano et al., 2021) [32] which states that board size has a significant and negative effect on financial distress. The results of this study are also not in line with research conducted by (Nasiroh & Priyadi, 2018) [29] which states that board size has a positive influence and does not have an insignificant effect on financial distress.

The institutional ownership variable shows a negative and significant direction on the dependent variable, namely financial distress with a coefficient value of -0.640067 and a probability value of 0.0032 where the probability value of the t-statistic is smaller than 0.05. Based on the results of this study, it can be seen that H3 is accepted. Companies that have institutional ownership will make company management more focused on company performance. The greater institutional ownership will have an impact on increasing supervision of financial performance by the institution so that it can reduce financial distress. This research is in line with research from (Haq et al., 2016) [15] and (Septiani & Dana, 2019) [30] which shows that institutional ownership has a negative influence and has a significant effect on financial distress. But the results are not in line with (Udin et al., 2017) [5] and (Novianita, 2017) [7] which shows that institutional ownership does not have a significant effect.

REFERENCES


[2] www.idx.co.id


