The Impact of Corporate Governance and Liquidity on Financial Distress with Firm Size as Moderating Variable

Nurul Khaeria¹, Farida Titik Kristanti¹
¹ School of Economics and Business, Telkom University, Indonesia

Abstract
This study aims to check whether corporate administration and liquidity to some degree, affected monetary pain, with firm size going about as a mediator between liquidity and monetary misery. Gender diversity, managerial ownership, institutional ownership, and independent commissioners were used to execute corporate governance in this study. This study’s example incorporates 13 property and land organizations that were recorded on the Indonesia Stock Trade somewhere in the range of 2017 and 2021, with a sum of 65 observational data of interest. The logistic regression analytic technique and moderation regression were used in the inquiry. The findings emphasized the concurrent influence of liquidity and corporate governance on financial stress, whereby managerial ownership, institutional ownership, and independent commissioners positively influence financial distress. In contrast, gender diversity and liquidity partially do not. Firm size has no effect on the relationship between liquidity and financial distress.

Keywords—Corporate Governance; Financial Distress; Firm Size; Liquidity

I. INTRODUCTION

A company was founded to maximize profits; however, this aim is not always met. This can occur due to various factors inside a company, which can lead to a decline in financial performance and, finally, bankruptcy. Occasionally, this is referred to as financial distress. A company with financial difficulties is in financial trouble (Moleong, 2018). According to Kristanti (2019), financial distress is a firm’s overall position that may result in the company being liquidated. Earnings per share (EPS) is one of several indicators of the financial crisis. Kristanti et al. (2016) used the same approach to quantify financial distress in previous study. According to Putri
& Merkusiwati (2014), earnings per share reflects a company's ability to generate profit per share and distribute it to shareholders. If a company's EPS value is negative, it is considered financially distressed.

According to a prior study, there are various variables that could influence financial distress. Corporate governance is one of several variables that might contribute to financial distress. Gender diversity, managerial ownership, institutional ownership, and independent commissioners are the corporate governance elements investigated in this study. Gender diversity, according to Mondayri & Tresnajaya (2022), is a diversity that has an advantageous effect on organizational performance since women are perceived to have distinct management in decision-making. Salim & Dillak (2021) believe that gender diversity had a positive effect on financial distress, whereas gender diversity has no effect on financial distress (Ramadanty & Khomsiyah, 2022). Managerial ownership is the percentage of shares owned by directors, managers, and the board of commissioners (Efendi, 2013). Managerial ownership had no impact on financial distress, according to Dianova & Nahumury (2019). In the meantime, Rodiah & Kristanti's (2021) research demonstrated that ownership of management had a detrimental effect on financial distress. The number of shares an organization owns is called institutional ownership. Banks, financial institutions, insurance firms, and other organizations are among the subjects being assessed (Nurbaiti et al., 2021). According to Dianova & Nahumury's (2019) findings, institutional ownership lessened financial distress. Contrary to Pranita & Kristanti's (2020) outcomes, institutional ownership exacerbated financial distress. Members of the independent board of commissioners have no connection to the business. They oversee corporate actions to adhere to the acceptable code of ethics (Nurbaiti et al., 2021). According to Zhafirah & Majidah (2019), independent commissioners had an adverse effect on financial distress, unlike Lesmana & Damayanti's (2021) research, which declares that an independent commissioner decidedly affected financial difficulty.

In this study, firm size is a moderating variable between liquidity and financial distress. According to Amanda & Tasman (2019), the firm size represents how much the company's overall assets are of additional value to interested parties such as creditors and investors because they are not afraid to give contracts to the company and invest in it. The number of assets a company possesses, including fixed and current assets, increases with size. A company's ability to pay off its short-term debt and avoid financial trouble increases with the size of its current assets. This is consistent with Rahmadianti & Asyik's (2021) research that claims that firm size could strengthen the interaction between liquidity and financial distress (Mujiani & Jum'atul, 2020).

From 2017 to 2021, the study's moderating variable was company size, with the goal of determining how corporate governance and liquidity affected financial distress in companies in the property and real estate sectors listed on the Indonesia Stock Exchange. Previous investigations' findings are still contradictory. As a result, it is still relevant for the author to do further research utilizing the previously mentioned elements.

II. LITERATURE REVIEW

According to Fahmi (2017), a state of financial distress is one in which a company cannot meet its short-term obligations, resulting in a decline in the business's financial performance and eventually leading to bankruptcy. A situation in which a company is unable to meet its financial obligations is referred to as financial distress or financial difficulties, according to Kristanti (2019). Usually arises as an early warning sign before the worst event happens, namely bankruptcy. Financial distress can harm the firm, leading to its liquidation.

According to Effendi (2016), corporate governance is a company's internal control order that seeks to manage risk by improving shareholders' investment value in the long run. Corporate governance is a set of guidelines aiming to manage the corporation to promote good, transparent, and fair relationships among the parties concerned. Gender diversity, managerial ownership, institutional ownership, and independent commissioners are the corporate governance models employed in this study. Gender diversity, according to Kristanti (2019), is the diversity that exists on the board of directors. The representation of women on the board of directors demonstrates diversity. Gender diversity will contribute to a company's decision-making process more dynamic since women have a higher level of carefulness than males, which leads to them avoiding risks and being more cautious (Kharris & Nugrahanti, 2022). This is intended to boost the company's performance and help it avoid financial distress.

Managerial ownership is a situation wherein managers have multiple roles, namely company managers and shareholders who have a voice in decision-making and directly experience the benefits of decisions made as
well as bear the risk if there are losses as a result of making negligent choices (Hanafi, 2014). Because management is responsible for the interests of other shareholders, a significant percentage of managerial ownership will optimize the company's success. The measures established can limit fraudulent behavior on the side of management, lowering the potential of financial distress.

According to Cinantya & Merkusiwati (2015), institutional ownership is sharing ownership by institutions from external sources within the organization, including insurance, investment, pension funds, banking, and other institutions. High levels of institutional ownership typically attract further attention from institutional investors, resulting in better corporate performance. The scale of institutional ownership generally results in more focused monitoring, participation in decision-making, and a lower risk of financial distress.

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According to Gopalan et al. (2012), a liquid asset is one that can be quickly and cheaply converted into cash. In order to meet their short-term obligations, businesses with relatively high liquidity may quickly convert their assets into cash (Gyarteng, 2021). By measuring a company's liquidity, the liquidity ratio determines whether or not it can meet its short-term financial obligations using current assets. According to Tyaga & Kristanti (2020), a firm with adequate liquidity is unlikely to encounter financial distress. Because the current ratio (CR) is more commonly utilized in research, it determines the amount of company liquidity in this study. The current ratio was used to quantify liquidity in studies undertaken by (Zhafirah & Majidah, 2019), (Dianova & Nahumury, 2019), and (Aldama & Kristanti, 2022).

According to Muzharoatiningsih (2022) in Setyowati (2019), firm size is one of the factors examined when determining investment decisions that correspond to the size of ownership assets. According to Syuhada et al. (2020), a company's total asset value, log size, stock market value, and average sales level can all be used to determine its firm size. Larger companies have bigger and broader access to external finance sources, which makes it easier to get financial assistance. The size of a firm can be used to calculate how many assets it possesses, including fixed and current assets. The greater the company's current assets, the better it is to meet its short-term obligations promptly and effectively, reducing the likelihood of financial distress. Total asset, the logarithm of total assets, the natural logarithm of revenues, and the number of workers may all be used to calculate the size of a firm. Small businesses are more subject to macroeconomic forces than large ones (Kristanti, 2019).

This study's hypotheses are as follows:

H1: Gender diversity is detrimental to financial distress.

H2: Managerial ownership is detrimental to financial distress.

H3: Institutional ownership is detrimental to financial distress.

H4: Independent commissioner is detrimental to financial distress.

H5: Liquidity is detrimental to financial distress.

H6: The impact of liquidity on financial distress can be influenced by firm size.
III. RESEARCH METHODOLOGY

A. Operational Variable

The study's dependent variable is financial distress, according to studies done by (Kristanti et al., 2016). Financial distress was assessed in this study using earnings per share (EPS) identified by research (Kristanti et al., 2016).

\[ EPS = \frac{\text{Net Profit After Tax} - \text{Dividend}}{\text{Number of Outstanding Shares}} \]

This study includes varied independent variables, including corporate governance and liquidity. Gender diversity, managerial ownership, institutional ownership, and independent commissioners are the corporate governance examples employed in this study. Gender diversity, according to Kristanti (2019), is the diversity that exists on the board of directors. Gender diversity measurements, namely:

\[ \text{Gender Diversity} = \frac{\text{Number of Female Directors}}{\text{Number of Directors}} \]

Managerial ownership is a situation wherein managers have multiple roles, namely company managers and shareholders who have a voice in decision-making and directly experience the benefits of decisions made
and bear the risk if there are losses due to negligent choices (Hanafi, 2014). The following formula is used to calculate the indicators of managerial ownership:

$$ \text{Managerial Ownership} = \frac{\text{Number of Shares Owned by Managers}}{\text{Number of Outstanding Shares}} $$

According to Cinantya & Merkusiwati (2015), institutional ownership is sharing ownership by institutions from external sources within the organization, including insurance, investment, pension funds, banking, and other institutions. The following formula is used to calculate the proportion of institutional ownership:

$$ \text{Institutional Ownership} = \frac{\text{Number of Shares Owned by Institutions}}{\text{Number of Outstanding Shares}} $$

The liquidity ratio is used to assess a company's ability to use current assets to satisfy its short-term financial obligations by measuring its liquidity. Because the current ratio (CR) is more commonly utilized in research, it determines the amount of company liquidity in this study. The current ratio was used to quantify liquidity in studies undertaken by (Zhafirah & Majidah, 2019), (Dianova & Nahumury, 2019), and (Aldama & Kristanti, 2022). The following is the current ratio formula:

$$ \text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} $$

This study also employs a moderating variable, firm size, as a mediator between liquidity and financial distress. Syuhada et al. (2020), firm size is a way to measure a company that can be viewed from the company's total asset value, log size, stock market value, and average level of sales. The following formula is used to calculate the size of a company:

$$ \text{Firm Size} = \ln \text{Total Asset} $$

B. Methodology

In this study, quantitative research approaches are mixed with a case study or observational methodology. The Indonesian Stock Exchange website provided secondary data for this analysis. Companies in the property and real estate industries listed on the Indonesia Stock Exchange between 2017 and 2021 make up the population of this study. Purposive sampling was used in this study, and the following criteria were used: 1) Real estate and property companies that will be listed on the Indonesian Stock Exchange between 2017 and 2021; 2) Real estate and property-related businesses with complete financial and annual report data for 2017-2021; and (3) Real estate and property businesses with managerial ownership from 2017 to 2021. 13 businesses meet the requirements, and 65 observations were made over a five-year period.

The data in this study was examined using logistic regression and moderation regression analysis. In this study, data analysis approaches were processed using SPSS 26 program.

This study's logistic regression equation is as follows:

$$ \ln \frac{\text{FD}}{1 - \text{FD}} = \alpha + \beta_1 \text{GD} + \beta_2 \text{MO} + \beta_3 \text{IO} + \beta_4 \text{IC} + \beta_5 \text{LU} + \varepsilon $$

Explanation:

$$ \ln \frac{\text{FD}}{1 - \text{FD}} : \text{Financial Distress} $$

$$ \alpha : \text{Constant} $$

$$ \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 : \text{Regression Coefficient} $$
In addition to logistic regression, moderation regression is used in this research. Moderation regression is employed in this study to see if firm size can moderate the association between liquidity and financial distress. This study’s moderation regression equation is as follows:

$$\ln \frac{FD}{1 - FD} = \alpha + \beta_1 GD + \beta_2 MO + \beta_3 IO + \beta_4 IC + \beta_5 LU + \beta_6 FS + \beta_7 LU \cdot FS + \epsilon$$

Explanation:

- $$\ln \frac{FD}{1 - FD}$$: Financial Distress
- $$\alpha$$: Constant
- $$\beta_1, \beta_2, \ldots$$: Regression Coefficient
- GD: Gender Diversity
- MO: Managerial Ownership
- IO: Institutional Ownership
- IC: Independent Commissioner
- LU: Liquidity
- FS: Firm Size
- $$LU \cdot FS$$: Interaction of Liquidity and Firm Size
- $$\epsilon$$: Error term

IV. RESULT AND DISCUSSION

Financial distress has a 0 minimum and a 1 maximum value. Financial distress has a standard deviation of 0.458 and an average value of 0.29. Financial distress has a standard deviation higher than the average, indicating that the data are diverse or heterogeneous.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Diversity</td>
<td>65</td>
<td>0.000</td>
<td>0.375</td>
<td>0.166</td>
<td>0.13</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>65</td>
<td>0.000</td>
<td>0.71</td>
<td>0.096</td>
<td>0.193</td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>65</td>
<td>0.000</td>
<td>2.195</td>
<td>0.77</td>
<td>0.472</td>
</tr>
<tr>
<td>Independent Commissioner</td>
<td>65</td>
<td>0.333</td>
<td>0.667</td>
<td>0.416</td>
<td>0.1</td>
</tr>
<tr>
<td>Liquidity</td>
<td>65</td>
<td>0.147</td>
<td>11.398</td>
<td>2.655</td>
<td>2.295</td>
</tr>
<tr>
<td>Firm Size</td>
<td>65</td>
<td>15.596</td>
<td>29.8</td>
<td>25.403</td>
<td>3.47</td>
</tr>
<tr>
<td>Financial Distress</td>
<td>65</td>
<td>0</td>
<td>1</td>
<td>0.29</td>
<td>0.458</td>
</tr>
</tbody>
</table>

Source: Data processed by the author (2023)

According to Table 1, Gender diversity has a value between 0 and 0.375. The standard deviation is 0.13, while the mean value is 0.166. Since the standard deviation for orientation variety is not exactly normal, this outcome infers that the orientation variety information is homogeneous or does not shift. The managerial ownership value ranges from 0 to 0.71. The average level of managerial ownership is 0.096, with a 0.193 standard deviation. The fact that the average value of managerial ownership is higher than the standard deviation suggests that the data on managerial ownership are inconsistent or heterogeneous. With an average of 0.77 and a standard deviation of 0.472, the value of institutional ownership ranges from 0 to 2.195. This result suggests that
the nature of institutional ownership data is homogenous or does not change because the average value is higher than the standard deviation value. The value of the independent commissioner is between 0.333 and 0.667. The independent commissioners have an average standard deviation of 0.416 and a standard deviation of 0.1. The data are homogeneous or do not vary because the independent commissioner's average value is greater than the standard deviation.

Liquidity averages 2.655 and a standard deviation of 2.295, with the lowest value being 0.147 and the highest being 11.398, respectively. The fact that the liquidity standard deviation is lower than the average raises the possibility that the data are uniform or do not vary. With a minimum value of 15.596 and a maximum value of 29.8, firm size acts as a moderating variable. The standard deviation is 3.4, while the average is 25.4. This result suggests that the company size data are homogeneous or do not vary because the standard deviation is lower than the average.

<table>
<thead>
<tr>
<th>Table 2. Hosmer and Lemeshow Test</th>
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<tr>
<td>Step</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data processed by the author (2023)

The Hosmer and Lemeshow Test's regression qualifying test results are presented in Table 2. The Chi-square value is 11.897, and the level of significance is 0.104. The significant value represents any differences between the data and the study model. If the significant value is greater than 0.05, the data are considered identical to the research model; The data are said to differ from the research model if it is less than 0.05. There should be no departures or changes from the model in a decent set of data. This study’s significant result on the Hosmer and Lemeshow Test is 0.104, larger than 0.05. This indicates that the data in this research is reliable.

<table>
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<tr>
<th>Table 3. Overall Model Fit</th>
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<tr>
<td>-2 Log Likelihood Block 0</td>
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<tr>
<td>-2 Log Likelihood Block 1</td>
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</table>

Source: Data processed by the author (2023)

Table 3 displays the total regression model fit using -2 Log-likelihood. If the values of -2 Log Likelihood Block 0 and Log Likelihood Block 1 have decreased, the regression model is said to be appropriate. Block 0 has a log-likelihood value of 78.547, whereas Block 1 has a log-likelihood value of 48.544. The values of Blocks 0 and 1 have decreased. This demonstrates the model’s applicability in this study.

<table>
<thead>
<tr>
<th>Table 4. Omnibus Test of Model Coefficients</th>
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<tbody>
<tr>
<td>Step 1</td>
</tr>
<tr>
<td>Step</td>
</tr>
<tr>
<td>Block</td>
</tr>
<tr>
<td>Model</td>
</tr>
</tbody>
</table>

Source: Data processed by the author (2023)

Table 4 displays the results of the Omnibus Test of the Model Coefficient. If the significant value is less than 0.05, the independent variable is assumed to impact the dependent variable concurrently. If the significant value is greater than 0.05, the independent variable has no influence on the dependent variable. The significant value in Table 4 is 0.000, less than 0.05. As a result, the independent variables of corporate governance, liquidity, and the moderating variable of firm size all impact financial distress simultaneously.

<table>
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<tr>
<th>Table 5. Variables in the Equation</th>
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<tr>
<td>B</td>
</tr>
<tr>
<td>Gender Diversity</td>
</tr>
<tr>
<td>Managerial Ownership</td>
</tr>
<tr>
<td>Institutional Ownership</td>
</tr>
<tr>
<td>Independent Commissioner</td>
</tr>
<tr>
<td>Liquidity</td>
</tr>
<tr>
<td>Firm Size</td>
</tr>
<tr>
<td>Liquidity * Firm Size</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

Source: Data processed by the author (2023)
The following regression model equation is derived from the testing results:

$$FD = -15.28 - 2.793GD + 9.615MO + 2.897IC + 12.237IC + 0.131LU + 0.222FS - 0.045LU \cdot FS + \varepsilon$$

Assuming the huge worth is under 0.05, the autonomous variable is remembered to affect the reliant variable meaningfully. If the significant value is greater than 0.05, the independent variable has no effect on the dependent variable. The coefficient value indicates whether the independent variable influences the dependent variable positively or negatively. Table 5, Variables in the Equation, demonstrates this.

Gender diversity has a significant value of 0.417. This result is larger than 0.05, showing that gender diversity does not influence financial distress and rejecting $H_1$. This illustrates that having a diverse board of directors has no influence on the likelihood of financial difficulty. This finding is consistent with prior study by Salim & Dillak (2021), but it disagrees with recent research by Ramadanty & Khomsiyah (2022), which found that gender diversity reduces financial distress.

For managerial ownership, the significant value is 0.000, which is less than 0.05. Because the managerial ownership coefficient is positive, $H_2$ is rejected because managerial ownership increases financial distress. This illustrates that the more managers that own stock in a firm, the more likely the company’s financial performance will deteriorate. Santos et al. (2017) made a similar observation. However, according to Rodiah & Kristanti (2021) research, managerial ownership negatively influences financial distress.

A substantial value of 0.005 is assigned to the variable institutional ownership. This result is less than 0.05 and has a positive coefficient value, showing that institutional ownership has a beneficial effect on financial distress and, therefore, rejects $H_3$. This means that the bigger the proportion of a firm’s shares held by institutions, the more likely the company may suffer financial troubles. This finding is similar with Dianova & Nahumury (2019) earlier research, but it contrasts with Pranita & Kristanti (2020) study, which discovered that institutional ownership had a negative influence on financial distress.

There is a significant value for the independent commissioner variable of 0.012, less than 0.05. $H_4$ is rejected because the independent commissioner’s coefficient is positive, indicating that the independent commissioner positively affects financial difficulty. This suggests that the more independent commissioners a firm has, the greater the likelihood of financial difficulty. The prior investigation by Lesmana & Damayanti (2021) produced the same result. Conversely, this research contradicts the findings of Zhafirah & Majidah (2019), who found that having an independent commissioner had a detrimental impact on financial distress.

0.428 is the liquidity significant value. Since this value is greater than 0.05, $H_5$ is ignored because the liquidity variable has no effect on financial distress. This illustrates that the firm’s current ratio has no influence on whether or not it will face financial difficulties. This finding is consistent with Erayanti (2019) prior research, but it contrasts with Dillak & Fitri (2019) earlier research that found financial distress was positively influenced by liquidity.

The company’s size is a moderating factor with a significance level of 0.382. This number exceeds 0.05. Since firm size has no effect on the relationship between liquidity and financial distress, $H_6$ is rejected. This study's findings are in contrast to Rahmadianti & Asyik (2021) findings, which found that the size of a company may increase the impact of liquidity on financial distress.

V. CONCLUSION AND RECOMMENDATION

The aforementioned research and discussion can be used to reach the following conclusions:

1. Financial distress is affected by corporate governance and liquidity at the same time.
2. Financial distress is unaffected by gender diversity.
3. Financial distress is lessened by managerial ownership.
4. Financial distress is alleviated by institutional ownership.
5. Financial distress is lessened when an independent commissioner is present.
6. Financial distress is not influenced by liquidity.
7. The company size has no effect on the relationship between liquidity and financial distress.
Recommendations for future researchers to expand their research using the factors that have been employed because prior studies still have inconsistencies, as well as adding variables, research samples, and other research periods.

REFERENCES


