

THE EFFECT OF GENDER, CORPORATE GOVERNANCE, AND LOANS ON FINANCIAL DISTRESS IN MANUFACTURING INDUSTRIES

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Abstract

This study aims to examine the influence of female roles, governance, and loans on the possibility of financial distress in manufacturing companies in Indonesia. Financial distress is measured through the Altman Z-score. The variables of female roles are measured based on the representation of female boards in the company while the variables of governance consist of the concentration of share ownership, the independence of the Board of Commissioners, the size of the Board of Directors, and the remuneration of the board. The loan variable is based on the value of the company's long-term and short-term interest-bearing loans. The research was conducted based on a sample of 140 companies with 560 observations from 2018 to 2021. This research method uses binary logistic regression. The results of the study show that female board and concentration of share ownership had a significant negative effect on financial distress while loans had a significant positive effect. On the other hand, the independence of the Board of Commissioners, the size of the Board of Directors, and the remuneration of the board have no significant effect on the possibility of financial distress occurring in the company.

Keywords: *female board; corporate governance; loans; financial distress*

Abstrak

Penelitian ini bertujuan meneliti pengaruh peran perempuan, tata kelola, dan pinjaman terhadap kemungkinan terjadinya kesulitan keuangan pada perusahaan manufaktur di Indonesia. Kesulitan keuangan diukur melalui Altman Z-score. Variabel peran perempuan diukur berdasarkan representasi dewan perempuan pada perusahaan sementara variabel tata kelola terdiri dari konsentrasi kepemilikan saham, independensi Dewan Komisaris, ukuran Dewan Direksi, dan remunerasi dewan. Adapun variabel pinjaman adalah nilai pinjaman berbunga perusahaan dalam jangka panjang maupun pendek. Penelitian dilakukan berdasarkan 140 sampel dengan total 560 observasi dari tahun 2018 hingga 2021. Metode penelitian ini menggunakan regresi logistik biner. Hasil penelitian representasi dewan perempuan dan konsentrasi kepemilikan saham berpengaruh negatif signifikan terhadap kondisi kesulitan keuangan sementara nilai pinjaman berpengaruh positif signifikan. Di sisi lain, independensi Dewan Komisaris, ukuran Dewan Direksi, dan remunerasi dewan tidak berpengaruh signifikan terhadap

kemungkinan terjadinya kesulitan keuangan.

Kata kunci: *peran perempuan; tata kelola; pinjaman; kesulitan keuangan*

1. INTRODUCTION

Younas et.al. (2021) revealed that financial distress is illustrated as a situation where the company is unable to pay its debts as a result of poor loan management, decreased income, and increased expenses so cash flow is not sufficient to finance operational activities and cover the company's obligations. Samanta and Johnston (2019) added that the condition of financial distress can lead to bankruptcy or forced liquidation.

Based on the world economic outlook from the International Monetary Fund (IMF) in October 2022, global economic activity experienced a large-scale slowdown accompanied by a high inflation rate. This condition will increase the risk of financial distress for companies. Moreover, Indonesia's economic conditions as a developing country also experienced various challenges because of the dependence on import activities, global competition also triggers financial distress in companies (Hidayat and Meiranto, 2014).

Mariano et.al. (2021) argue that the characteristics of a company's loans and governance are important in influencing the possibility of financial distress. Poor corporate governance implementation is still a persistent source of issues that might result in a company's failure (Jodjana et.al. 2021). Luqman et.al. (2018) and Younas et.al. (2021) found that implementing good corporate governance can reduce the possibility of financial distress. In addition, it allows for better capital structure, more efficient operation, and protection of stakeholders. Poor financing management may increase the risk of financial distress, resulting from the company's inability to pay the loan and its cost. Manzaneque et.al. (2016) and Shahwan (2015) found that financially healthy companies have a better governance system than companies experiencing financial distress. Based on resource dependence and agency theory, this is supported by the diversity of the Board of Director, the monitoring system by the Board of Commissioners, and management motivation through remuneration and representation of the female board. These corporate governance aspects can help avoid risks that may harm the company, such as financial distress.

Financial distress is a threat to all companies, and the triggers for these are financial and non-financial such as corporate governance. Furthermore, Indonesian companies still have weak implementation of corporate governance (Jodjana et.al. 2021). This makes the topic of governance, loans, and financial distress interesting. In addition, there are still inconsistencies from previous studies, and the limited research conducted in developing countries, especially in Asia, has also become a motivation to examine the effect of governance and borrowing on the possibility of financial distress. Therefore, this study will re-examine the representation of the female board, corporate governance which consists of ownership concentration, independent Board of Commissioners, size of the Board of Directors, board remuneration, and loan on the possibility of financial distress in the manufacturing

industry. This research is expected to expand the literature regarding female roles, governance, and loans on the possibility of financial distress. This research is a replication of "Can We Predict the Likelihood of Financial Distress in Companies from Their Corporate Governance and Borrowing?" by Mariano et.al. (2020), by adding the independent variable which is the representation of the female board. The addition of this variable is based on the issue of gender inequality that is still felt in Indonesia so, with the additional variable, it can examine the role of the female in company boards, in terms of preventing financial distress.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Financial distress is a condition in which a company experiences financial difficulty as a result of losses over the years (Gilbert, 1990). Rimawati and Darsono (2017) define financial distress as a condition when a company's cash flow is not sufficient to meet its obligations in the form of debt or interest expenses, resulting in a decline in the financial condition which becomes a stage before bankruptcy occurs. There are several models to measure financial distress, this study will be using the Altman Z-score. In the Altman Z-score model, the ratio of liquidity, profitability, leverage, and the company's performance is a determining factor for the level of risk of financial distress that the company will experience. In addition, the Altman model is also more suitable for non-banking companies (Darsono & Ashari, 2010).

According to Jensen and Meckling (1976), agency theory is a relationship based on a conflict of interest between company owners or principals with the agents or the management who runs the company. This can lead to agency problems due to information asymmetry and decision-making that only benefits one party without considering the condition of the company. Many companies were experiencing financial distress until they finally went bankrupt due to agency problems from weak corporate governance (Davis, 1993; Dibra, 2016). Mariano et.al. (2021) state that the existence of conflicts of interest and weak governance will trigger company board members to manipulate or do creative accounting of the company's asset value and financial position, which can increase the risk of financial distress. So, agency theory can help understand the role and relationship of governance to the possibility of financial distress.

According to Anselmi and Law (1998), there are beliefs that have been regulated by the social and cultural environment regarding the behavior and emotions of male and female. This is also supported by the social role theory which explains that the development of male and female behavior is influenced by the social environment such as the expectations and responsibilities given to each gender (Eagly, 1987). The attitude of women who are seen as more careful, passive, and gentle is also related to their communication skills and attitude when they have to make a decision. On the other hand, the role of women can minimize agency problems because they often ask questions and rarely interfere with the interests of company shareholders (Adam & Ferreira, 2009). Garcia & Herrero (2021) revealed that the role of women on company boards can minimize the risk of financial distress because they have a smaller tendency to make loans and make risky

decisions.

Proposed by Pfeffer and Salancik (1978), this theory explains that the external environment influences the sustainability of an organization. This theory also states that a company will have greater power if it has its own characteristics. One of them is the diversity of key management, namely the Board of Directors and Commissioners. In practice, company board members are selected based on educational background, and social and political relations. The diversity of backgrounds and genders in the composition of the board can improve the monitoring system and decision-making process because it is based on a wider perspective (Benkraiem et.al., 2017).

Spence (1973) explains that the sending party who is the owner of the information or management gives a signal in the form of information that reflects the condition of the company to the receiving party such as shareholders. Meanwhile, according to Brigham and Houston (2011), this theory explains management's view of the company's growth and performance in the future, where signals in the form of information discuss management's efforts in running the company. According to Owolabi and Inyang (2013), signals given by management to the public can be in the form of issuing or using debt. The proportion of the use of debt must be adjusted to the company's ability to fulfill its obligations and if the company is unable to fulfill its obligations, the information in the financial statements that is illustrated as a signal will have a negative impact on the company.

Female Role Based on Representation of Female Board on Financial Distress

The value and importance of diversity and gender equality in business is becoming more widely recognized, especially in the composition of board members. According to Faccio et.al. (2016) and Croson and Gneezy (2009), the performance of female board members is better because it is based on a more thorough and careful attitude in making risky decisions. Research by Guizani et.al. (2022) found that the presence of a female board can improve supervision and performance, leading to a lower risk of the company falling into financial distress. However, these results are contrary to research by Pucheta-Martinez et.al. (2017) who found a positive effect between the presence of a female board and the company's financial distress. The overly cautious attitude of women will hinder the company's performance to stagnate or even decrease because they are not confident in making innovations or changes. So, the presence of female board will minimize the risk of financial distress because women are considered to have a more conscientious, careful attitude and avoid big risks, which is also supported by the gender and social role theory. The first hypothesis is as follows:

H1. The percentage of female board has a negative effect on the possibility of a company's financial distress.

Corporate Governance Based on Ownership Concentration on Financial Distress

Management who manages business activities can endanger the company's condition if they carry out their duties only focusing on their interests. However, supervision by the company's shareholders on management performance can help

reduce agency problems (Maury, 2006). Research from Mariano et.al. (2021) shows that shareholders have greater motivation to monitor the performance so that the company can run effectively and minimize the likelihood of experiencing financial distress to give investment gains. On the other hand, Gerged et.al. (2022) argue that the concentration of large ownership in a company can pressure management to make decisions that only benefit the majority shareholders. Manzaneque et.al. (2016) suggested that large share ownership can increase agency problems thereby increasing the occurrence of financial distress. Therefore, a high concentration of ownership can put pressure on the Board of Directors to make decisions that only benefit large shareholders, such as distributing large dividends without paying attention to the company's financial condition. Other than that, large shareholders can also expropriate the minority shareholders which can negatively impact the company. This also triggers agency problems that will hinder the company's performance and increase the probability of financial distress. Therefore, the second hypothesis is formulated.

H2. Ownership concentration has a positive effect on the possibility of a company's financial distress.

Corporate Governance Based on Independence of the Board of Commissioners on Financial Distress

According to Garcia-Meca and Sanchez-Ballesta (2010), the independence of the Board of Commissioners in Indonesia plays an important role in terms of monitoring the performance of the Board of Directors that provides a broader perspective and insight regarding financial conditions and risks that may arise from making certain decisions. The Board of Commissioners will put pressure on the Board of Directors to improve the quality of reporting through information transparency so that it can stimulate financial performance which leads to a lower risk of financial distress within the company (Samaha et.al., 2012). Gerged et.al. (2022) argue that the independence of the Board of Commissioners can effectively monitor management behavior, reduce financial distress, and protect the interests of company shareholders. Mariano et.al. (2021) add that the Independent Board of Commissioners helps mitigate agency problems and exploitative behavior. On the other hand, Daily and Dalton (1994) explain that there is a positive relationship between board independence and financial distress, while Laijili and Zeghal (2010) find no relationship. Therefore, the high level of independence of the Board of Commissioners as measured by the number of Independent Commissioners can improve oversight of the performance of the Board of Directors, reduce agency conflicts, and minimize the occurrence of financial distress. The third hypothesis is as follows:

H3. The number of Independent Commissioners has a negative effect on the possibility of a company's financial distress.

Corporate Governance Based on Size of Board of Directors on Financial Distress

According to Adams and Mehran (2012), the number of the Board of Directors as the executor of the company's operational activities has an impact on

determining the company's performance and the level of transparency to reduce asymmetric information which can have a positive impact on improving company performance and reducing the possibility of financial distress. Research from Manzanique et.al. (2016) found that a larger number of board members will be able to provide greater benefits and have wider connections to gain more resources for the company, as the diversity of experiences and educational backgrounds of the board provides a more varied view when making decisions and strategy formulation. Younas et.al. (2021) obtained a different result, stating that a larger size of the Board of Directors can slow the decision-making process, thereby reducing the effectiveness of the board in managing the company which then leads to weakened performance and increases the risk of financial distress. Therefore, based on the resource dependence theory, the large size of the Board of Directors can provide a broader perspective on decisions due to the diversity of education and experience. So that decisions can be made wiser based on broader considerations by each Board of Directors which can minimize the company's probability of experiencing financial distress. The fourth hypothesis is formulated as follows:

H4. The size of the Board of Directors has a negative effect on the possibility of a company's financial distress.

Corporate Governance Based on Board Remuneration on Financial Distress

Jensen & Meckling (1994) argue that the amount of remuneration can have a negative influence on company performance considering that management is also basically an employee who wants high remuneration but makes a small contribution. Hassan et.al. (2003) found a weak but positive relationship to the remuneration variable. This is supported by Afrifa and Taurigana (2015) who found no significant effect between remuneration and conditions of financial distress and explained that high compensation but not following the management's capabilities can result in the board only focusing on individual interests. On the other hand, Hazami-Ammar and Gafsi (2021), show a negative relationship between executive remuneration and the risk of financial distress. Mariano et.al. (2021) also found that board remuneration has a significant negative impact on a company's financial distress. Therefore, giving a large amount of remuneration can motivate management to carry out their responsibilities more optimally, so it has an impact on increasing performance which minimizes the occurrence of financial distress. In addition, based on agency theory, high remuneration will reduce agency conflicts that have the potential to reduce the quality of corporate governance. The fifth hypothesis is as follows:

H5. The amount of board remuneration has a negative effect on the possibility of a company's financial distress.

Corporate Loans on Financial Distress

McKeon (1969) revealed that loans are important for corporate financing because they can increase liquidity in a short period. However, the costs associated with borrowing can increase the risk of financial distress. The high cost of borrowing with low effectiveness in managing resources can increase the risk of financial difficulties. Hadi et al. (2017) associate loans with leverage, stating that

the higher the leverage ratio, the greater the amount of obligations that the company must pay, as well as the higher business risk that the company must bear, especially when economic conditions are deteriorating, which can increase the risk of financial distress. Mariano et.al. (2021) and Demiroglu and James (2015) found a positive effect between loans and financial distress. However, Wahyuni et.al. (2020) stated that the level of debt funding partially has no significant effect on a company's financial distress. So, a high loan will increase the interest that must be paid which can affect the company's liquidity and solvency. If the company fails to pay off these obligations, this condition will make the company more vulnerable to falling into financial distress. Based on the signaling theory, information regarding the amount of loans and the possibility of financial difficulties in the company becomes a signal in the financial reports presented to the stakeholders. That information is illustrated as a signal from the management which reflects the company's health and performance. The last hypothesis of this research is as follows:

H6. Loans have a positive effect on the possibility of a company's financial distress.

Figure 1 shows a research framework consisting of one dependent variable, six independent variables, and four control variables.

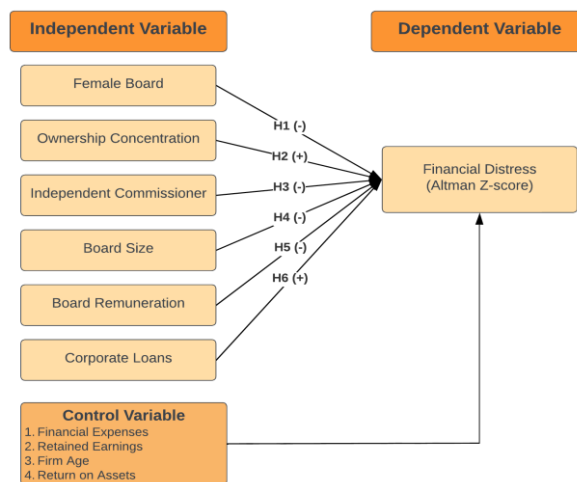


Figure 1: Conceptual Framework

The dependent variable is a dummy variable, where '1' denotes companies that are in a distress zone or experiencing financial distress, while healthy companies are categorized as '0'. The independent variables in this research consist of ownership concentration, independent Board of Commissioners, size of the Board of Directors, board remuneration, representation of female board, and loan. The control variables include financial expenses, retained earnings, age, and return on assets.

3. RESEARCH METHOD

The research methodology of this study includes descriptive statistics, multicollinearity, and coefficient of determination (r-squared) test, Hosmer-

Lemeshow test, and Wald test. The independent variables in this research consist of the representation of the female board, ownership concentration, independent Board of Commissioners, size of the Board of Directors, board remuneration, and loan. Financial expenses, retained earnings, age, and return of assets are used as control variables to examine their effect on the dependent variable which is the company's likelihood of facing financial distress. A binary logistic regression is carried out in this study as the dependent variable which is financial distress is binary with a value of 1 when the company is considered in the distress zone while the value of 0 indicates the company is not financially distressed and classified in the safe zone. The research model and each variable measurement are presented as follows:

$$FD_{it} = \beta_0 + \beta_1 FBOARD_{it} + \beta_2 OWNERS_{it} + \beta_3 INDCOM_{it} + \beta_4 BSIZE_{it} + \beta_5 BREM_{it} + \beta_6 CLOAN_{it} + \beta_7 FE_{it} + \beta_8 RE_{it} + \beta_9 AGE_{it} + \beta_{10} ROA_{it} + \varepsilon_{it}$$

FD	= Financial Distress
β_0	= Constant
$\beta_{1...10}$	= Coefficient $\beta_1 < 0, \beta_2 > 0, \beta_3 < 0, \beta_4 < 0, \beta_5 < 0, \beta_6 > 0, \beta_7 > 0, \beta_8 < 0, \beta_9 < 0, \beta_{10} < 0$
FBOARD	= Female Board
OWNERS	= Ownership Concentration
INDCOM	= Independent Commissioners
BSIZE	= Board Size
BREM	= Board Remuneration
CLOAN	= Corporate Loans
FE	= Financial Expenses
RE	= Retained Earnings
AGE	= Firm Age
ROA	= Return on Assets
ε	= Standard Error
i	= Cross-sectional units
t	= Time (year)

Table 1: Variables Measurement

Variable	Measurement	References
Dependent Variable		
<i>Financial Distress</i> (FD)	Altman Z-score = $1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$ Z-score < 1,81 is given value 1 (<i>distress</i>), meanwhile Z-score > 1,81 is given value 0 (<i>non-distress</i>)	Mariano <i>et.al.</i> (2021)
Independent Variables		
<i>Female Board</i> (FBOARD)	$\frac{\text{Female gender Board}}{\text{Company's BoC} + \text{BoD}} \times 100\%$	Gerged <i>et.al.</i> (2022)

<i>Ownership Concentration</i> (OWNERS)	$\frac{\text{Largest share ownership by non public}}{\text{Total shares issued by the company}} \times 100\%$	Mariano <i>et.al.</i> (2021); Jodjana <i>et.al.</i> (2021), Manzanegue <i>et.al.</i> (2016)
<i>Independent Commissioner</i> (INDCOM)	Σ Independent Board of Commissioner	Gerged <i>et.al.</i> (2022)
<i>Board Size</i> (BSIZE)	Σ Board of Directors	Gerged <i>et.al.</i> (2022), Jodjana <i>et.al.</i> (2021)
<i>Board Remuneration</i> (BREM)	Σ Remuneration of BoC + BoD	Mariano <i>et.al.</i> (2021)
<i>Corporate Loans</i> (CLOAN)	Σ Long term + short term interest bearing loan	Mariano <i>et.al.</i> (2021)
Control Variables		
<i>Financial Expenses</i> (FE)	$\frac{\text{Interest bearing loans} \times \% \text{ interest rate}}{\text{Company's Assets at the beginning of the year}}$	Mariano <i>et.al.</i> (2021); Manzanegue <i>et.al.</i> (2016)
<i>Retained Earnings</i> (RE)	$\frac{\text{Retained earnings}}{\text{Company's Assets at the beginning of the year}}$	Mariano <i>et.al.</i> (2021); Manzanegue <i>et.al.</i> (2016)
<i>Age</i> (AGE)	2022 – the year company was Founded	Mariano <i>et.al.</i> (2021)
<i>Return on Assets</i> (ROA)	$\frac{\text{EBIT}}{\text{Company's average total assets}} \times 100\%$	Gerged <i>et.al.</i> (2022); Shahwan <i>et.al.</i> (2020)

The data is collected using purposive sampling from Capital IQ and the company's website by selecting all companies in the manufacturing industry listed on IDX from 2018 until 2021. The company screening is based on SIC Code Division D which resulted in a total of 267 companies with 1,068 observations. Companies that have majority share ownership by the public, are being delisted, and do not have complete data are excluded from the research sample. Through the collection process, 140 companies with an observation of 560 are obtained as sample.

4. RESULTS AND DISCUSSION

Table 2: Descriptive Statistics Results

Variable	Observation	Mean	Min	Max	Std. Dev.
FD	560	0.3393	0	1	0.4739
FBOARD	560	13.0500	0	60	13.4158
OWNERS	560	62.5786	23	100	19.5115
INDCOM	560	1.5875	0	5	0.7841
BSIZE	560	4.6982	1	13	2.0521

BREM	560	21,753,969,599	198,000,000	245,000,000,000	30,732,737,963
CLOAN	560	3,167,389	0	63,038,808	8,468,619
FE	560	0.0188	0	0.1898	0.1764
RE	560	0.1260	-5.7074	0.1287	0.5755
AGE	560	41.9357	6	108	19.9530
ROA	560	3.8636	-39.5259	38.3084	7.0508

The average of financial distress is 0.3393 which illustrates that out of a sample of 140 companies, only 34% of them are experiencing financial distress. The following is a table of grouping based on the Altman Z-score, where the highest is in 2020 with 55 companies experiencing financial distress. The material sub-sector in the manufacturing industry contributes the largest number of distressed companies, with an average common size of 39% in 4 years.

Table 3: Company Grouping based on Altman Z-score (FD)

Companies Categorized in a Distress Zone (Z-score < 1,81, therefore, FD = 1)			
Year 2018	Year 2019	Year 2020	Year 2021
44	46	55	45

Based on descriptive statistics, some companies do not have Independent Board of Commissioner and female board, while the company's average board size is 5 members. Furthermore, the result shows that there are companies with no interest-bearing loans and financial expenses. A negative value in retained earnings and ROA indicates that the company was suffering loss and unable to generate profit from its operation.

Table 4: Multicollinearity Test Results

Variable	VIF	1/VIF
BREM	1.81	0.5523
INDCOM	1.70	0.5875
BSIZE	1.66	0.6023
LOAN	1.49	0.6716
ROA	1.42	0.7050
RE	1.35	0.7406
AGE	1.18	0.8440
OWNERS	1.11	0.8970

FBOARD	1.07	0.9383
FE	1.06	0.9428
Mean VIF	1.39	0.7481

The result shows that the mean VIF (Variance Inflation Factor) is 1,39. VIF that is less than 10 and a tolerance value that is higher than 0.1 indicates that there is no multicollinearity between variables. In other words, all the variables used in this study are free from correlation.

Table 5: Hosmer-Lemeshow Test Results

<i>Number of observations</i>	560
<i>Number of groups</i>	10
Hosmer-Lemeshow Chi2	13
Prob > Chi2	0.1117
<i>Classified</i>	<i>Percentage</i>
<i>Sensitivity</i>	64.21%
<i>Specificity</i>	91.62%
<i>Positive predictive value</i>	79.74%
<i>Negative predictive value</i>	83.29%
<i>Correctly classified</i>	82.32%

Results from the Hosmer-Lemeshow test as the goodness of fit test show a Prob>chi2 value of 0.1117 which means the model is fitted with the data as the value chi-square is greater than 0.05. So, the research model is appropriate and can predict the observation data. In addition, the result also exhibits that the data has been classified correctly by 82.32% with a specification value of 91.62% and a sensitivity of 64.21%.

The Pseudo R^2 value for the coefficient of determination or r-squared test is 0.4084. So, the ability of independent variables to explain the dependent variable of financial distress is only at 41%. This is in line with the results of the Wald test which shows that not all independent variables influence the dependent variable.

Table 6: Wald Test Results

Variable	Coefficient	P > Z
FBOARD	-2.1880	0.0220**
OWNERS	-2.1687	0.0010***

BSIZE	-0.0135	0.8780
BREM	1,73e-12	0.7510
FBOARD	-2.1880	0.0220**
CLOAN	6,37e-08	0.0020***
FE	35.4416	0.0000***
RE	-2.5879	0.0000***
AGE	0.0001	0.9850
ROA	-0.2878	0.0000***

*Significant at $\alpha = 10\%$; **Significant at $\alpha = 5\%$; ***Significant at $\alpha = 1\%$.

The results of the hypothesis test in Table 6 show that female board has a significant negative effect on financial distress. Therefore, H1 is accepted. This result is in line with previous research by Guizani et. al. (2022), Usman et. al. (2019), and Faccio et. al. (2016). Gender and social role theory explain that there are differences in attitudes and behavior between male and female board members, where in general women are more thorough and careful in making decisions, so this can minimize the possibilities of financial distress. In contrast to men who are considered more confident and courageous in making risky decisions. Furthermore, Adam and Ferreira (2009) stated that the role of female board will minimize agency problems that can hinder company performance.

The results of the second hypothesis show that ownership concentration has a significant effect on financial distress based on the value of $P > |Z| 0.001$. However, H2 is not accepted because the test results show a negative coefficient. This is supported by research from Mariano et.al. (2021) which explains that large share ownership is able to provide more effective supervision of company performance. The majority shareholders will monitor management performance more effectively to ensure that the company does not experience financial difficulties and can provide good investment returns. This also aligns with the stewardship theory, in which majority shareholders and management have the same goal, such as to improve company performance so that both go hand in hand in ensuring that the company can have better performance and profitability. Therefore, with increased performance, the risk of financial distress is minimized.

The result of the third hypothesis shows that the independence of the Board of Commissioners has no significant effect on the company's financial distress. The regression result shows that the role of the Independent Board of Commissioners has no influence on the condition of a company's financial distress, which is in line with the result of research conducted by Lajili and Zeghal (2010). In addition, this is also in accordance with our research data where companies that were in the distress zone have a varying number of Independent Commissioners. The data shows that companies that have a few or many Independent Commissioners are still at risk of facing financial distress. This can be based on the limited functions and

powers of the Board of Commissioners. As a supervisory function, decision-making remains in the hands of the Board of Directors, and the Board of Commissioners is only tasked with providing advice on these decisions. Therefore, the presence of the Independent Board of Commissioners has no influence on the occurrence of financial distress because it has a passive role in overseeing the performance of the Board of Directors as executor regarding company decisions and activities.

In the next hypothesis, the size of the Board of Directors does not have a significant influence on the company's financial distress. In this case, the decision-making process by the Board of Directors plays an important role in preventing the company from getting stuck in a state of financial difficulty, not based on the number of Directors in the company. This is in accordance with the result of research by Gerged et.al. in 2022. This result is also supported by our research data where companies experiencing financial distress have a variation in the number of Board of Directors from 2 to 11 members. This data shows that the number of the Board of Directors has no effect on the possibility of a company's financial distress because both companies with large and small Board of Directors are still at risk of financial distress.

The result of H5 shows that board remuneration has no significant effect on the possibility of a company's financial distress. Therefore, H5 will be rejected. The result is in line with the research conducted by Afrifa and Tauringana (2015) and Hassan et. al. (2003). Remuneration that is not adjusted to the abilities of the board members will make the member not optimally carry out their duties and responsibilities. This can weaken the board's judgment which results in less effective and efficient company operations. Referring to the sample data, there were 82 companies increasing the amount of remuneration for the Board of Commissioners and Directors in 2019. However, it shows an increase of 1.43% in 2019 in the number of companies that fall into the distress zone. On the other hand, the average board remuneration also shows an increase of IDR 94,108,130 from 2018. However, based on the results, the company's efforts to increase remuneration to minimize financial distress did not have a significant impact. In fact, this has increased the number of companies included in the distress zone.

The loan variable shows a value of $P > |Z|$ of 0.002 with a positive coefficient which concludes that corporate loans have a significant positive effect on the possibility of financial distress. The result of this study is the same as previous research conducted by Mariano et. al. (2021), Farooq et. al., (2021), and Demiroglu and James (2015). Companies that have high-interest loans will be more vulnerable to experience financial distress if they are unable to pay off these obligations. When linked to signaling theory, this financial information is illustrated as a signal from management to the stakeholders regarding the company's condition and performance.

Based on Table 6, financial expenses have a significant positive effect on financial distress. This result is in line with previous research from Mariano et. al. (2021) and Manzaneque et. al. (2016). Retained earnings and return on assets (ROA) show a significant negative effect on financial distress, which is also the same as the results of research from Mariano et. al. (2021), Shahwan et. al. (2020), and Manzaneque et. al. (2016). On the other hand, the company's age shows no

significant effect on financial distress.

5. CONCLUSION

The results show that the representation of female boards has a significant negative effect on the likelihood of financial distress, so H1 is accepted. On the other hand, the ownership concentration shows a significant negative effect so H2 of the research is rejected. Corporate loans resulted in a significant positive effect on the possibility of financial distress, so H6 is accepted. Meanwhile, the independence of the Board of Commissioners, board remuneration, and size of the Board of Directors, show that they do not affect financial distress, so in this case, the research hypotheses in the form of H3, H4, and H5 are rejected.

This research is expected to provide benefits to stakeholders through the research results obtained. For companies engaged in the manufacturing industry, it is hoped that the results can provide an overview of the factors that influence the occurrence of financial distress. On the other hand, by knowing the condition of financial health and the potential for a company to experience financial distress, this research is expected to assist investors in investing in the right company. On the academic side, the research results are also expected to contribute to expanding the literature, filling gaps in previous research, and are used as a reference for further research that discusses the effect of corporate governance and loan size on the possibility of financial distress in the manufacturing industry.

The limitations encountered during the research were in the form of the presence of companies that did not provide complete information for both the independent, and control variables so the final sample results that met the criteria were quite limited. This has an impact on the results of research hypothesis testing where the independent variables used are limited in explaining their effect on the dependent variable in the form of company financial distress. In addition, this research did not include external factors and the Altman Z-score shows the companies that are included in the category gray zone in this study are classified as safe zones because they are considered capable of being rescued from financial distress. The application of this grouping will close the possibility for the company to grey zone it to get into the distress zone.

Future research may consider including the most recent research year and companies in other industries. In addition, further research can also use other non-financial variables, including external factors, and specify the grouping of companies that fall into the category grey zone to see the effect of governance and loans on the company's financial distress. Companies and IDX are expected to be able to provide clearer and more detailed information in the published annual reports as well as on their website.

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