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THE EFFECT OF PROFITABILITY, BOARD SIZE, AND WOMAN ON BOARDS ON FINANCIAL DISTRESS

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ABSTRACT

Financial distress is a condition that often occurs in companies due to internal and external factors. This condition must be addressed immediately because it could endanger the business. This research attempts to collect empirical information about how profitability, board size, and women on board impact firms on the LQ-45 company list that are experiencing financial difficulties. Multiple linear regression is the methodology used in this study. EViews version 12 is used for data processing. In this research, the dependent variable is the level of financial distress which is proxied by the Debt-to-Equity Ratio (DER). According to this study, financial distress is negatively impacted by board size and profitability, positively and significantly by having woman on the board of directors, also completely unaffected by having a woman on the board of commissioners.

Keywords: *profitability, board size, woman on boards, financial distress.*

1. INTRODUCTION

Financial distress refers to a situation where the financial standing of a company struggles to meet its financial obligations, such as operational costs, debt payments, and other liabilities. This includes circumstances where the company experiences a continuous decline in financial performance over several years, potentially leading to bankruptcy. It can be concluded that financial distress indicates an unhealthy state for a company.

When experiencing financial distress, this significantly impacts the company. In addition to affecting the company itself, this condition also impacts stakeholders such as employees, investors, creditors, and even the wider community. Examples of negative effects when a company experiences financial distress include many employees losing their jobs, investors losing confidence in the company, and a decline in the company's value, leading to a drop in its stock prices. In the worst-case scenario, the company may face bankruptcy.

News about financial difficulties can cause increased market volatility, affecting both the company and the overall market. Financial distress is usually triggered by several factors, including the size of the board of directors, the number of women in director positions, and the level of profitability. Financial issues are more likely to affect businesses that already have them.

This research is a replication of the study by Kalbuana, *et al.* (2022), which examined the influence of profitability, board size, and women on boards on financial distress. However, this study differs in the research period used. This study utilizes the period from 2020 - 2023, while the study by Kalbuana, *et al.* (2022) used the period from 2017 - 2021. It is crucial to reevaluate how profitability, board size, and the presence of women on boards affect financial distress considering the previous definition.

Economics Performance theory has been developed by several thinkers and economists. One of them is Adam Smith (1776), in one of his works, "The Wealth of Nations", which discusses the basic principles of a market economy and how individual freedom in business can encourage economic growth. It can be used to explain how these elements interact to influence a company's financial stability, especially when considering the impact of the financial crisis, size of the board of directors, number of women on the board, and profitability performance. This theory focuses on the relationship between the economic performance of a company, namely profitability, operational efficiency, and competitiveness. It explains how the company's internal and external elements affect economic performance, finally emphasizing the reasons behind financial crisis.

This theory is a concept that has evolved from several studies in the fields of economics and management. This theory explains that companies with good performance are usually more resilient in facing market companies. On the other hand, underperforming companies may be unable to adapt, thereby increasing the risk of financial distress when facing external challenges.

Agency theory was developed by Jensen and Meckling (1976). They explained the relationship that exists between company owners and the management involved in the company. This theory addresses the issues that arise due to differences in opinions or interests between the owners and the management, as well as how the structure of the company can influence operational efficiency and effectiveness. Management tends to have more comprehensive information about the company compared to the owners due to information asymmetry, leading to moral hazard and adverse selection problems that benefit management, which prioritizes bonuses or job security over maximizing shareholder value. This theory is related to the relationship between the owner (principal) and manager (agent) in an organization. In the context of financial distress, this relationship can influence management decisions in financial distress situations and, in turn, the company's financial condition.

Stewardship theory created by Donaldson & Davis (1991) posits that managers can be motivated to act as good stewards for the interests of shareholders rather than solely pursuing their own interests. In other words, this theory suggests that if managers have adequate resources and support, they will act in the best interests of the company. This theory is related to the view of managers who act as "stewards" or managers who are responsible for the interests of an owner (principal). In situations of financial distress, managers who are in line with the principles of stewardship have a greater opportunity to make difficult decisions, for example restructuring or investing for recovery, because they believe that the company's long-term success is their responsibility.

Financial distress definition according to Hutabarat (2021) is a stage before a company experiences bankruptcy. Besides that, Altman (2021) claims that this circumstance arises when a business is unable to fulfill its financial commitments. This includes the repayment of debts, interest, and other liabilities, which can lead to bankruptcy. Altman indicates that financial distress can arise from poor management, economic conditions, and high levels of debt. This highlights the importance of monitoring financial indicators to predict potential financial distress early on.

According to Brigham & Ehrhardt (2020), profitability is defined as a company's effort to generate profit from its earned revenue, reflecting operational efficiency and the success of

business strategies. Profitability is also emphasized by Brigham and Ehrhardt as a crucial sign of a business's sound financial standing. A study conducted by Dewi, *et al.* (2019) reveals that profitability has a negative and significant impact on financial distress. Furthermore, study by Kartika & Hasanudin (2019) yields comparable findings, suggesting that financial hardship is significantly impacted negatively by profitability. This is because when a company generates profits effectively, it tends to have more stable cash flow, allowing the company to meet its financial obligations on time and reducing the risk of financial difficulties. However, in similar research conducted by Suryani (2021), it is stated that profitability does not have a significant effect on financial distress. Based on this framework, the following can be formulated:
H_1 = Profitability has a negative effect on financial distress. (See **Figure 1**)

Board size, according to Lipton and Lorsch (2020), is the number of members on a company's board of directors. This number can affect the variety of viewpoints and experience on the board, as well as decision-making and the company's capacity to properly manage its operations. Therefore, the size of a board should be appropriate to support effective oversight, good decision-making, and contribute to the overall performance of the company.

The size of the board of directors is crucial for reducing the likelihood of a company's financial troubles, per Anggriani and Rahim's (2021) research. A larger board reduces the danger of financial trouble since it has greater experience, perspective, and decision-making skills. This means that a larger board size can contribute to better risk management and more effective decisions. However, this is not aligned with the study conducted by Khoir (2024), which argues that board size does not affect financial distress. This framework may be used to formulate the following:
H_2 = Board Size has a negative effect on financial distress. (See **Figure 1**)

According to González, *et al.* (2021), woman on boards refer to the representation of woman in the highest levels of a company's structure, which can enrich the decision-making process and reduce gender bias in corporate governance. Woman on boards are separated into two groups in this study: those on the board of directors and those on the board of commissioners. According to research by Nuswantara *et al.* (2023), having woman on the board of commissioners significantly and favorably affects financial distress. This result, however, contradicts the findings of Ohandi & Puspitasari's (2024) study, which found no discernible impact of women on the board of commissioners on financial distress.

Furthermore, in the research of Nuswantara, *et al.* (2023), women on the board of directors also have a positive and significant influence on financial distress. This is once again not in line with research by Ohandi & Puspitasari (2024) which states that women on the board of directors do not have a significant effect on financial distress. Women are risk averse; this makes women afraid to make decisions. This means that the returns received by the company will decrease and the financial distress conditions will become greater.
Compared to men, women are typically more cautious and risk averse. This affects the idea of high risk, high return; having more women in leadership positions will undoubtedly lower risks, but the company will also typically obtain lower returns, which leads to financial difficulties. Based on this framework, the following can be formulated:
H_3 = Woman on board of commissioner has a positive effect on financial distress. (See **Figure 1**)

As discussed previously, woman's participation on boards brings diverse perspectives, which can help companies make more efficient decisions. However, companies with a higher proportion of women tend to be too afraid to take risks, so the return the company receives will certainly be smaller because it leaves behind risky opportunities. Based on this framework, the following can be formulated:
H_4 = Woman on board of directors has a positive effect on financial distress. (See **Figure 1**)

The model in this study based on the explanation above is:

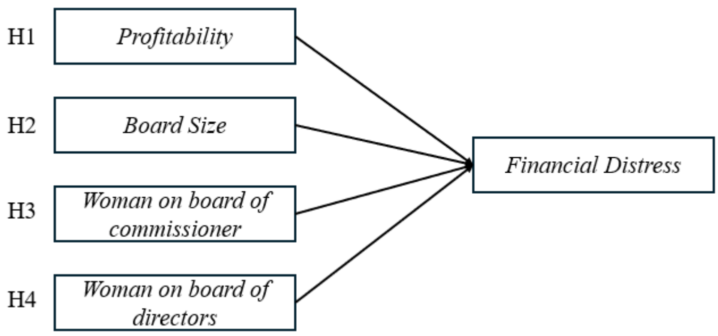

Figure 1. Research Framework

2. RESEARCH METHOD

All companies included in the LQ-45 index between 2020 and 2023 constitute the population used in this study. Purposive sampling is the method used in this research, which takes an explanatory stance. The following criteria were applied: (1) Businesses listed on the LQ-45 list between 2020 and 2023. (2) LQ-45 businesses that released annual financial reports throughout the study period.

Profitability, board size, and woAen on board are the independent variables of this research, while financial distress is the dependent variable. According to Kalbuana *et al.* (2022), research, financial distress proxied by Debt-to-Equity Ratio (DER) is measured using the formula:

$$DER = \frac{Total\ Liability}{Total\ Equity}$$

Research indicates that profitability, represented by Return on Asset (ROA), is calculated using the following formula, according Kalbuana *et al.* (2022):

$$ROA = \frac{Net\ Profit}{Tota\ Asset}$$

Research indicates that the following formula is used to measure board size (Kalbuana *et al.*, 2022).

$$Board\ Size = \sum Board\ of\ Commissioners$$

Research by Kalbuana *et al.* (2022) indicates that the WOMC, or woman on board of commissioners, is assessed using the following formula:

$$WOMC = \frac{Total\ Female\ Member\ of\ Commissioners}{Total\ Commissioners}$$

According to Kalbuana *et al.* (2022), research, woman on board of directors symbolized by WOMD is measured using the formula:

$$WOMD = \frac{Total\ Female\ Member\ of\ Directors}{Total\ Directors}$$

Data were obtained from companies listed in the LQ-4 index during the period from 2020-2023. The collected data were processed using EViews 12 SV software.

3. RESULTS AND DISCUSSIONS

A sample of 80 data points, 60 of which were after outliers, was gathered based on the criteria and covered the 2020–2023 study period. The following table displays each variable's descriptive statistics test results. (Table 1):

Table 1. The result of Descriptive Statistics

	Mean	Minimum	Maximum	Std. Dev
DER	1.251500	0.070000	4.460000	1.097342
ROA	0.081000	0,010000	0.280000	0.051146
Board Size	6.416667	3.000000	10.00000	1.816046
WOMC	0.090667	0.000000	0.430000	0.130018
WOMD	0.129833	0.000000	0.600000	1.097342

Based on the Table 1, Financial Distress (DER) has a mean value 1.251500, the mean value is closer to the minimum value, indicating that most of the data is probably on the lower side of the range. Profitability (ROA) has a mean value 0.081000, this means that the mean value is closer to the minimum value, indicating that most of the entities in the sample have lower profitability, and only a few entities achieve a higher level of profitability. Board Size has a mean value of 6.416667 this can be interpreted as meaning that the mean value is between the ranges, which indicates that most entities have a board size around that value. This also means that the board size is generally larger than the minimum value. Woman on board of Commissioners (WOMC) has a mean value 0.090667, this low mean value indicates that in general the proportion of women on the board of commissioners tends to be low. Woman on board of Directors (WOMD) has a mean value 0.129833, this value shows that the proportion of women on the board of directors is around 13%. Even though this value is higher than the previous variable, this value is still relatively low.

After carrying out the model selection test, the Chow test results were 0.0000 < 0.05 (FEM), the Hausman test results were 0.0660 > 0.5 (REM), and the langrage multiplier test was 0.0000 < 0.05 (REM). Therefor the model chosen is the Random Effect Model.

Table 2. The result of Multiple linear regression

	Coefficient	Prob.	Description
ROA	-7.590526	0.0022	H1 accepted
Board Size	-0.144121	0.0352	H2 accepted
WOMC	0.186584	0.8482	H3 not accepted
WOMD	2.876090	0.0023	H4 accepted

The regression coefficient of profitability on financial distress is negative 7.590526. A p-value of 0.0022 has a probability of being less than 0.05. These findings suggest that financial strain is significantly and negatively impacted by profitability. meaning that H1 is accepted. A probability value of 0.0022 means there is only a 0.22% chance of this outcome occurring by chance. Because the probability value is far from the general threshold, namely 0.05. This indicates that a key determinant of the likelihood of financial trouble is profitability. Low-profitability businesses are typically more susceptible to financial difficultiesThis is consistent with study by Kalbuana *et al.* (2022), which indicates that the degree of financial difficulty decreases as a company's profitability increases. But, based on research conducted by Yunita *et al.* (2023) reveals that profitability has a positive and significant impact on financial distress.

Board size has a negative 0.144121 regression coefficient on financial hardship. A p-value of 0.0352 has a probability that is less than 0.05. Based on these findings, H2 is accepted since board size significantly and negatively affects financial distress. There is only a 3.52% possibility that this outcome happened by accident, according to the probability value of 0.0352. This also shows that the results are significant because they are smaller than 0.05. These findings suggest that the size of the board can be a significant factor in controlling the company's risk of financial crisis. The risk of financial difficulty may be decreased by a larger board since it may have greater experience, a broader viewpoint, and the capacity to make better judgments. This implies that more effective decision-making and improved risk management may result from a larger board. The findings of research by Kalbuana *et al.* (2022) do not support this.

The female commissioner's financial distress regression coefficient is a negative 0.186584. There is a better than 0.05 chance of a p value of 0.8482. H3 results are not acceptable. The data presented above show that having women on the board of commissioners has no discernible effect on financial burden. This is said to be insignificant because, judging from the results of descriptive analysis data, the mean woman on board commissioner is only 9%. This shows that there are not many female commissioners in a company. Therefore, it cannot be said that there is a statistically significant relationship between these factors. Financial distress is not impacted by the presence of women. This is consistent with study by Kalbuana, *et al.* (2022), however it contradicts research by Nuswantara, *et al.* (2023) that found a favorable and significant impact on financial distress from having women on the board of commissioners.

The regression coefficient of woman on board of directors on financial distress is positive 2.876090. The probability of a p value of 0.0023 is smaller than 0.05, meaning that H4 is accepted. The probability value of 0.0023 (0.23%) indicates that the possibility of this result occurring by chance is very small, and far from the threshold of 0.05. which means this result is statistically significant. Increasing the number of women on boards is associated with less effective decisions. This means that the presence of women on the board of directors does not necessarily guarantee better and more effective decisions. This is in line with research conducted by Kalbuana, *et al.* (2022).

4. CONCLUSIONS AND SUGGESTIONS

The results discussed previously suggest that board size and profitability play an important role in reducing the risk of financial distress, while gender dynamics within boards can produce different outcomes. Financial distress is significantly impacted by profitability and board size, while women on the board of directors have a favorable and significant impact and women on the board of commissioners do not. It is hoped that further research will add additional years of research so that it better describes the actual conditions that occur.

The limitation of this research is that it only uses four independent variables and has a short research period, namely only four periods. Upon further research, it is advised to increase the count of variables and the duration of the study. This research can show how financial distress not only affects companies, but also has an impact on employees, investors and creditors. This could encourage policies to protect stakeholders when companies face financial difficulties.

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