



Does The Gender Diversity Of The Board Of Commissioners, Family Ownership, And Institutional Ownership Reduce The Likelihood Of Financial Distress During Covid-19?

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ABSTRACT

The aim of this research is to investigate the influence of the gender diversity of the board of commissioners (BOC), family ownership, and institutional ownership on the likelihood of financial distress of Indonesian public manufacturing companies during the COVID-19 pandemic and non-pandemic periods. This study uses panel logistic regression to determine the effect of the three aspects of corporate governance (CG) under study on financial distress. A total of 648 firm-year observations from 108 companies during the 2017–2022 period were used in the analysis. The research findings indicate that in the non-pandemic period, family ownership has a positive effect on financial distress, but the positive effect decreases during the pandemic period. Institutional ownership has a negative influence in the non-pandemic period, and that influence does not change during the pandemic period. Meanwhile, the gender diversity of the BOC does not affect financial distress in either the pandemic or non-pandemic period.

INTRODUCTION

The onset of COVID-19 in early 2020 has exerted significant strain on the global corporate landscape. The imposition of activity limitations in the community has hindered the mobility of individuals, leading to a disruption in the functioning of many companies. According to BPS (2020), it is projected that eight out of ten of enterprises in Indonesia will see a decrease in income in 2020. This crisis also highlights the significance of developing efficient corporate governance (CG) to achieve a resilient organization (Jebran & Chen, 2023). The issue at hand is worrisome because the risk of agency problems occurring tends to rise during a crisis (Hidayat & Utama, 2016). Agency problems can result in the occurrence of agency costs (Utama et al., 2017)

and potentially exacerbate financial distress. Heightened financial distress might result in the bankruptcy of a corporation (Samanta & Johnston, 2020).

During times of crisis, the supervisory function plays a vital role in ensuring compliance with management behavior and assisting the company in navigating through challenging circumstances (Papangkorn et al., 2021). CG refers to a framework of supervision and motivation, wherein owners strive to guarantee that management is making optimal efforts to enhance shareholder value (Jebran & Chen, 2023). The monitoring component offered by CG can originate internally through the supervisory board or externally through shareholders (Jebran & Chen, 2023).

Internally, Indonesian companies have a board of commissioners (BOC) that oversees the directors' performance. In Indonesia, regulators have made a number of efforts to improve CG procedures pertaining to the BOC, for example by determining the number of the BOC members, the portion of independent members, the background and experience of members, including its supporting committees (in Undang-Undang RI No. 40 of 2007 and POJK No. 33/POJK.04/2014). Nevertheless, there are currently limited regulations that particularly address gender diversity among the board's members, implying that gender inclusivity isn't being promoted enough. According to resource dependence theory, having gender diversity on boards brings in distinct abilities and viewpoints that are typically absent in traditional boards (Kim & Starks, 2016). This opens up greater access to resources and strategic advice that can support firm performance (Bhatt & Bhatt, 2017). Gender heterogeneity on the board provides a variety of viewpoints from the standpoint of agency theory, enhances both independence and supervision, and is useful to reduce agency costs from various agency problems (Adams & Ferreira, 2009).

The subsequent significant supervisory role is carried out by the shareholders of the company (Jebran & Chen, 2023). Most publicly traded companies in Indonesia are family-owned. According to Utama et al. (2017), 85.4% of the primary owners of public companies in Indonesia are families. Family-owned businesses typically exhibit a concentrated ownership arrangement, wherein the founder or their family possesses a substantial portion of the company's shares (Ing Malelak et al., 2020). They typically evade issues related to conflicts of interest between owners and management, yet regularly run into disagreements between minority shareholders and majority owners. The socio-emotional wealth approach (Gómez-Mejía et al., 2007) states that family enterprises will give importance to safeguarding socio-emotional wealth. This includes issues like family control, reputation, and family legacy, which are not related to financial matters. However, this emphasis on safeguarding socio-emotional wealth can also result in decision-making that may harm the interests of other investors and the overall profitability of the organization (Berrone et al., 2012).

Apart from family groups, institutional investors are a shareholder that can provide valuable supervisory reinforcement to organizations (Lin & Lu, 2019). It is anticipated that institutional ownership can effectively reduce information asymmetry and address agency problems, minimizing the possibility of financial distress (Gerged et al., 2023). Amidst the crisis, there was a heightened focus on CG due to the increased likelihood of management or controllers engaging in expropriation (Jabbouri & Jabbouri, 2021). In this context, institutional investors are perceived as having the capacity to offer superior active supervision compared to smaller investors with less resources (Alshabibi, 2021).

This study will focus on the effect of three aspects of CG, namely: gender diversity of the BOC, family ownership, and institutional ownership, on the possibility of financial distress. These three aspects have a supervisory role with their own characteristics and challenges. Understanding these three aspects of CG is important for developing more inclusive and resilient CG mechanisms, which can provide protection for all groups of shareholders. To investigate the different influences in the context of the pandemic-induced crisis, this study will compare data from the period affected by the pandemic with data from the period unaffected by it.

LITERATURE REVIEW

Agency Conflict

Agency relationship is described as an arrangement whereby the principals hire others (agents) to carry out some tasks on their behalf (Jensen & Meckling, 1976). In the interaction, the business owner as the principal will provide funds and other resources needed by the company in running its business, while the agent, who gets a salary and compensation from the company, must manage the company as the principal wishes (Wahyudin & Solikhah, 2017). The business owner may not know whether the agent has carried out and behaved in the principal's best interests (Wahyudin & Solikhah, 2017).

Principal-agent problems are not limited to the relationship between management and shareholders (type 1 agency conflict) (Utama et al., 2022), the relationship between controlling and minority shareholders may also give rise to agency conflicts (type 2). Type 1 agency conflicts occur in companies with dispersed ownership structures. This agency conflict arises because of the separation of control and ownership, which causes self-interested managers to expropriate for their personal interests (Jensen & Meckling, 1976). The consequence of this conflict is that the principal is harmed, and agency costs increase (Utama et al., 2017). Type 2 agency conflicts occur in companies with concentrated ownership structures (Nogueira & Castro, 2020). This conflict can occur when controlling shareholders use their voting rights to expropriate company resources for their personal interests (Rahmat et al., 2018). Agency conflicts may result in agency costs, which will increase the possibility of financial distress.

Financial Distress dan Altman's Z-Score

When a company is experiencing financial distress, its operating cash flow is insufficient to pay its debts and is usually forced to take corrective action and undergo financial restructuring (Ross et al., 2022). Seto (2022) stated that financial distress can arise from a variety of factors, such as excessive leverage, poor economic conditions, inadequate CG implementation, failed innovation, liquidity and funding shocks, and inefficient operations. One model for calculating the possibility of bankruptcy of public companies is Altman's Z-score model, which was developed by Edward Altman using ratios from financial statements and discriminant analysis (Ross et al., 2022). Z-score can be calculated with the following equation:

$$Z = 3,3 \frac{\text{EBIT}}{\text{Total Assets}} + 1,2 \frac{\text{Net Working Capital}}{\text{Total Assets}} + 1,0 \frac{\text{Sales}}{\text{Total Assets}} + 0,6 \frac{\text{Market Value of Equity}}{\text{Book Value of Debt}} + 1,4 \frac{\text{Accumulated Retained Earnings}}{\text{Total Assets}}$$

Z is bankruptcy index, a higher Z value indicates a lesser possibility of a company becoming insolvent and vice versa.

Gender Diversity of the BOC and Financial Distress

The effect of the BOC's gender diversity is the subject of mixed empirical evidence. Some show that it will negatively affect the likelihood of financial distress (Abbas & Frihatni, 2023; Gerged et al., 2023; Guizani & Abdalkrim, 2023). While others were unable to find a significant relationship between the two (Ramadhani & Adhariani, 2017; Salloum et al., 2013).

Based on resource dependence theory, gender diversity of the boards contributes to broader capabilities and mindsets (Kim & Starks, 2016), as well as more diverse networks and resources (García-Meca & Santana-Martín, 2023). Broader perspectives will help address complex problems, increasing decision-making efficacy (García-Meca & Santana-Martín, 2023). The inclusion offered by gender diversity is also believed to improve not only financial performance but also the company's reputation from the external stakeholders' perspective

(Abbas & Frihatni, 2023). Companies that can organize the dependability of their resources will be better prepared to face crises and achieve goals (Hillman et al., 2009).

From the agency theory perspective, gender diversity provides better independence and supervision of the board (Adams & Ferreira, 2009). Gender diversity can provide better information disclosure and accounting quality (La Rosa et al., 2018), thus making companies more careful in their decisions (García & Herrero, 2021). Adams & Ferreira (2009) reveal that gender diversity can increase supervision over executives and reduce agency costs incurred, which will minimize financial distress likelihood (Pucheta - Martínez & García - Meca, 2014). Based on this, we propose a hypothesis:

H1. Gender diversity of the BOC negatively affects the likelihood of financial distress.

Family Ownership and Financial Distress

Previous research presents mixed findings regarding family ownership's effect on financial distress. Gottardo & Moisello (2017) report that family firms are less likely to experience financial distress than non-family firms. However, Jarchow et al. (2023) find that family firms aren't observed to be better performing than non-family ones in non-crisis conditions. Meanwhile, research by Gerged et al. (2023) show that concentrated ownership affects financial distress likelihood positively.

Agency theory and socio-emotional wealth theory argue that family ownership has both the potential positive and negative effect on the resilience of the firm. The positive implications of family ownership on the firm arise from its ability to minimize the possible conflicts of interest between management and owners, especially when family members actively participate in the business's management. (Jarchow et al., 2023). Furthermore, family firms derive resilience from the social capital established with their stakeholders (Gottardo & Moisello, 2017), as well as the emotional drive that significantly influences their strong commitment to sustain their business (Chada & Banerjee, 2023; Gottardo & Moisello, 2017).

The negative implications of family ownership on company resilience stem from potential conflicts of interest between minority and controlling shareholders, especially in a market environment dominated by concentrated ownership with insufficient legal protection (Din et al., 2022; Hidayat & Utama, 2016). From a socio-emotional perspective, the family's main concern to maintain control of the business potentially result in strategic decision making that sacrifices the interests of other shareholders and company's performance (Berrone et al., 2012). Based on this explanation, we propose a hypothesis:

H2. Family ownership has a positive effect on the likelihood of financial distress.

Institutional Ownership and Financial Distress

Institutional investors have the responsibility to manage the funds entrusted to them by beneficial owners. Therefore, they must oversee the performance of the portfolio and the company where they invest the funds of their beneficial owners (Annur, 2015). Institutional investors have sufficient resources that allow them to supervise the company's financial performance and prevent risky decision making that can jeopardize the financial stability of the business (Gerged et al., 2023). This supervision will align the interests of management and stakeholders (Afza & Nazir, 2015), minimize information asymmetry among stakeholders, manage agency costs, thus ultimately limiting financial distress likelihood (Gerged et al., 2023). Studies by Gerged et al. (2023), and Younas et al. (2021) demonstrate that institutional ownership negatively affects the possibility of financial distress. Meanwhile, research by Utami & Dirman (2022) and Jodjana et al. (2021) found no effect of institutional ownership on financial distress. Based on this explanation, we propose a hypothesis:

H3. Institutional ownership has a negative effect on the possibility of financial distress.s

Board Gender Diversity and Financial Distress, during the COVID-19 Pandemic

In times of crisis, companies will need a broader perspective to find alternative solutions to increasingly complex and challenging problems (García-Meca & Santana-Martín, 2023). Uncertain external conditions also make the need for broader alternative external resources even more necessary to maintain the smooth operation of the firm (Hillman et al., 2009). Gender diversity will provide these crucial needs (Bhatt & Bhatt, 2017; Cucari et al., 2017). Based on this explanation, we propose a hypothesis:

H4. During the COVID-19 pandemic, the negative effect of gender diversity on the likelihood of financial distress strengthens.

Family Ownership and Financial Distress, during COVID-19

Research by Jarchow et al. (2023) shows that during times of crisis family firms can perform significantly better than non-family firms, which is not observed in normal non-crisis times. In addition, research (Amore et al., 2022) shows that family firm have better market and financial performance than non-family companies during the pandemic. Research by Block & Ulrich (2023) also shows that during the pandemic, family participation in the management has a positive effect on its resilience.

Family owners usually have ultimate control over the company's CG structure, giving them strategic flexibility, a less formal decision-making process, and speed of response if needed (Calabrò et al., 2021). Additionally, the motivation of family to pass the company down to the following generation will give them a special survival instinct that is useful for business development and management of their company (Calabrò et al., 2021). Family companies are also more prepared to make sacrifices through their willingness to work harder with limited incentives, high savings, and pay cuts (Calabrò et al., 2021). Based on this explanation, we propose a hypothesis:

H5. During the COVID-19 pandemic, the positive effect of family ownership on the likelihood of financial distress weakens.

Institutional Ownership and Financial Distress, during COVID-19

The resources and capabilities of institutional investors can be very beneficial for companies in dealing with a pandemic. Institutional investors can provide financial consultants that companies need during times of crisis (Gerged et al., 2023). Institutional investors can also reduce the asymmetry of corporate information and minimize the potential for management or controlling shareholders to engage in opportunistic actions during times of crisis (Afza & Nazir, 2015; Gerged et al., 2023).

COVID-19 creates uncertainty over the safety of investment in the company. When a significant ownership are held by institutional investors, selling shares is not an attractive option to overcome market uncertainty, due to the complexity and potential costs involved (Alshabibi, 2021). So as to ensure the safety of their investment, institutional investors will involve themselves more actively in supervising company management (Annuar, 2015). This combination of resources, capabilities, and supervision provided by institutional investors will make companies more resilient in the face of crisis. Based on this explanation, we propose a hypothesis:

H6. During the COVID-19 pandemic, the negative effect of institutional ownership on the likelihood of financial distress strengthens.

METHODS

The population of this research is all public companies that list their shares on the IDX. The samples were selected based on purposive sampling technique. The samples taken are publicly listed companies in the non-pharmaceutical manufacturing sector. This group of companies was chosen based on the consideration that they experienced operational and financial pressures during the pandemic but were not affected to an extreme extent such as transportation and

tourism companies (BPS, 2020), or even benefited such as pharmaceutical manufacturing companies (Atmaja & Davianti, 2022). There are 108 companies observed in the span of 6 years (2017-2022) which results in 648 company-year observation points. The data is obtained from the annual report of the companies, securities ownership composition provided by the Indonesian Central Securities Depository (KSEI), and the Refinitiv Eikon online database.

There are three independent variables related to CG, namely BOC's gender diversity, family ownership, and institutional ownership that will be investigated for their effect on the financial distress possibility. To get a comparison between conditions before and during COVID-19, a COVID-19 dummy will be used as an interaction variable. Two control variables in the form of company size (total assets) and ROA are added to increase the estimation power of the research model. Table 1 below displays the measurement of the research variables.

Table 1. Variable Measurement Summary

| Variable | Information |
|-----------------------------------|--|
| Financial Distress (FD) | The corporate financial distress possibility using Altman's Z-score. A binary variable with a value of 1 (distressed) if the company's Z-score is less than 2.9 and a value of 0 otherwise (Gerged et al., 2023). |
| Gender Diversity of the BOC (GDC) | GDC is proxied by Blau index (Guizani & Abdalkrim, 2023). It is calculated by subtracting the value of 1 from the sum of the squared proportions of each gender on the BOC. GDC = 1 - ((portion of female BOC) ² + (portion of male BOC) ²) |
| Family Ownership (FO) | The composition of shares owned by family members who have at least 25% of the voting rights; or less than 25% but have representation on the company's board with a lower limit of 5% ownership (Andres, 2007; Block & Ulrich, 2023). |
| Institutional Ownership (IO) | The composition of shares owned by non-Corporate institutional investors. Calculated by dividing the total shares owned by institutional investors by the total outstanding shares (Gerged et al., 2023). |
| Dummy COVID-19 (COV) | Dummy for the effect of the COVID-19 pandemic, with a value of 0 in 2017-2018 (non-pandemic) and a value of 1 in 2019-2022 (pandemic). |
| GDC*COV | Interaction term of GDC and dummy COVID-19 |
| FO*COV | Interaction term of family ownership and dummy COVID-19 |
| IO*COV | Interaction term of institutional ownership and dummy COVID-19 |
| Firm Size (FS) | Natural logarithm of the firm's total assets (Gerged et al., 2023) |
| Return on Asset (ROA) | ROA is a profitability ratio used to evaluate the firm's performance to generate profits from its assets. ROA is measured by comparing the company's net income to its total assets (Gerged et al., 2023) |

Source: author's processing, 2023

This research uses panel logistic regression analysis to test the hypotheses explained above. To compare the impact in pandemic and non-pandemic periods, dummy variables related to the presence of the COVID-19 pandemic were also added to the research model. This research model is described as follows:

$$\ln((FD)/(FD - 1)) = \beta_0 + \beta_1GDC_{it} + \beta_2FO_{it} + \beta_3IO_{it} + \beta_4GDC_{it}*COV + \beta_5FO_{it}*COV + \beta_6IO_{it}*COV + \beta_7COV_{it} + \beta_8FS_{it} + \beta_9ROA_{it} + \mu_{it} + \epsilon_{it}$$

RESULTS

Descriptive Analysis

Table 2 displays a summary of the research data's descriptive statistics. The FD variable is proxied by Altman's z-score with the provision of 0 if the z-score is equal to or greater than 2.9 (experiencing financial distress), and 1 if the value is smaller than 2.9. Of the 648 observed data,

58.17% of companies in the span of 6 years of observation experienced financial distress. Meanwhile, the COV is variable that indicates the presence or absence of the impact of the pandemic in the observation period. The years 2017 through 2019 are given a value of 0 which indicates the non-pandemic period, while the years 2020 through 2022 are given a value of 1 which indicates the pandemic period.

Table 2. Descriptive Analysis

| Var. | Obs. | Min | Max | Mean | SD | 0 | 1 |
|------|------|--------|-------|-------|-------|--------|--------|
| FD | 648 | | | | | 41,83% | 58,17% |
| COV | 648 | | | | | 50,00% | 50,00% |
| GDC% | 648 | 0,00 | 50,00 | 12,95 | 19,37 | | |
| FO% | 648 | 0,00 | 97,16 | 50,36 | 29,41 | | |
| IO% | 648 | 0,00 | 87,36 | 11,27 | 13,85 | | |
| FS | 648 | 25,22 | 33,66 | 28,79 | 1,62 | | |
| ROA% | 648 | -69,64 | 55,26 | 3,59 | 10,26 | | |

Notes: FD is the possibility of financial distress, COV is the COVID-19 pandemic dummy, GDC is the gender diversity of the BOC, FO is family ownership, IO is institutional ownership, FS is firm size proxied by the natural logarithm value of total assets, and ROA is return on assets. Source: author's processing, 2023

The GDC, proxied by the Blau index, has a value range of 0 to 50%. An index value of 0 shows that the BOC members are homogeneous, whilst a value of 50% indicates that the gender distribution of the BOC is balanced, between its male and female members. The mean GDC of the observed manufacturing companies is 12.95%, indicating that the majority of the BOC is still dominated by one gender group with an average diversity level of 12.95%. Table 2 shows that there are companies that are not owned by family investors at all and there are also companies whose shares are almost entirely controlled by family investors, with the highest portion of 97.16%. The mean value of 50.36% shows that family investors control 50.36% of the observed firms. The data distribution of institutional ownership shows that there are sample companies that do not have institutional investors in their shareholder composition, and there are also companies where most of their shares are held by institutional investors with the highest portion of 87.36%. The mean value indicates that institutional investors, on average, only control 11.27% of the ownership of the companies. This shows the relatively low involvement of institutional investors in the stock exchange of Indonesian manufacturing firm.

Multicollinearity Test

Table 3. Correlation Matrix and VIF

| Var. | VIF | GDC | FO | IO | GDC*COV | FO*COV | IO*COV | COV | FS | ROA |
|---------|------|---------|---------|---------|---------|---------|--------|---------|--------|--------|
| GDC | 2,11 | 1,0000 | | | | | | | | |
| FO | 2,37 | 0,1785 | 1,0000 | | | | | | | |
| IO | 2,22 | -0,1068 | -0,2563 | 1,0000 | | | | | | |
| GDC*COV | 2,58 | 0,6443 | 0,1130 | -0,0773 | 1,0000 | | | | | |
| FO*COV | 5,47 | 0,0828 | 0,4556 | -0,1519 | 0,4303 | 1,0000 | | | | |
| IO*COV | 2,53 | -0,0406 | -0,1271 | 0,5414 | 0,1519 | 0,2560 | 1,0000 | | | |
| COV | 5,89 | 0,0051 | 0,0030 | -0,0837 | 0,4285 | 0,7702 | 0,4821 | 1,0000 | | |
| FS | 1,43 | -0,0616 | -0,3543 | 0,4685 | -0,0390 | -0,1312 | 0,3033 | 0,0280 | 1,0000 | |
| ROA | 1,05 | -0,0047 | -0,0764 | 0,1396 | -0,0157 | -0,0864 | 0,0747 | -0,0726 | 0,1986 | 1,0000 |

Notes: GDC is the gender diversity of the BOC, FO is family ownership, IO is institutional ownership, COV is the COVID-19 pandemic dummy, FS is firm size proxied by the natural logarithm value of total assets, and ROA is return on assets. Source: author's processing, 2023

Table 3 shows the correlation matrix among the variables tested. Based on the tests conducted, there is no correlation coefficient that exceeds the value of 0.8 or the VIF value of more than 10 so that there is no indication of multicollinearity in the model.

Hypothesis Testing

To test the hypothesis, panel logistic regression was conducted using a random effect model (REM), according to the Hausman test, which resulted in a p-value > 0.05. The testing results are presented in Table 4. Column (1) presents the results using only the main independent variable over the entire study period, while column (2) includes all variables, including the interaction of the dummy COV and the main independent variable. Column (2) is the result that will be the main discussion of this study.

Table 4. Regression Results

| Variable | (1) FD | | (2) FD | | Hypothesis | Desc. |
|--------------|---------------|----------|---------------|----------|------------|--------------|
| GDC | -0,00561 | (0,4003) | -0,00641 | (0,4103) | H1 (-) | Rejected |
| FO | 0,04445 ** | (0,0439) | 0,06702 ** | (0,0127) | H2 (+) | Not Rejected |
| IO | -0,10914 *** | (0,0045) | -0,10617 ** | (0,0146) | H3 (-) | Not Rejected |
| GDC*COV | | | 0,00738 | (0,3851) | H4 (-) | Rejected |
| FO*COV | | | -0,03369 ** | (0,0158) | H5 (-) | Not Rejected |
| IO*COV | | | -0,01433 | (0,3662) | H6 (-) | Rejected |
| COV | | | 2,09819 ** | (0,0350) | | |
| FS | 2,02184 *** | (0,0000) | 2,22965 *** | (0,0000) | | |
| ROA | -0,60690 *** | (0,0000) | -0,68950 *** | (0,0000) | | |
| Constant | -54,20955 *** | (0,0000) | -60,83620 *** | (0,0000) | | |
| LR chi2 | 110,70 *** | (0,0000) | 116,20 *** | (0,0000) | | |
| Pseudo-R2 | 0,2183 | | 0,2292 | | | |
| Firms | 108 | | 108 | | | |
| Observations | 648 | | 648 | | | |

Notes: The p-value is indicated by the value in parentheses. ***, **, * indicate the significance of the coefficient at 1%, 5%, and 10%, respectively. Source: author's processing, 2023

The overall model fit test results are shown by the LR chi2 value in table 4. The LR chi2 p-value of 0.0000 in column (1) and column (2) indicates that all independent variables jointly affect the dependent variable. The result shows a pseudo-R2 value of 0.2292. This indicates that 22.92% of the financial distress likelihood can be described by the independent variables, while the other portion being explained by other variables outside the scope of the model.

DISCUSSION

The gender diversity variable doesn't affect financial distress likelihood significantly. It is consistent with the study conducted by Ramadhani & Adhariani (2017) and Salloum et al. (2013), which argues that the lack of a significant effect is caused by the low gender diversity of the board in the observed firms. In line with this, the gender diversity's level within the observed BOC, proxied by the Blau index, shows a mean value of 0.129, suggesting that the level of gender diversity of the observed companies is low. Thus, hypothesis H1 is rejected.

Family ownership affects the financial distress possibility positively. It indicates that during the non-pandemic period, high family ownership increases the financial distress likelihood. The

ownership of Indonesian Company is dominated by family investors. According to the descriptive analysis of the research sample, the average family ownership in the company exceeds 50%. Agency theory states that an ownership structure that is concentrated may result in conflicts of interest between the majority and minority owner, in this case, between family shareholders and non-family shareholders. Meanwhile, according to socio-emotional wealth perspective, the motivation of family to maintain control of the business drives decision making that may harm the interests of minority shareholders (Calabrò et al., 2021). The potential losses arising from this situation are agency costs that must be borne by minority shareholders and the company as a whole. The increase in agency costs will contribute to financial distress possibility. This condition supports the earlier studies of Jarchow et al. (2023) which reveals that companies with high family ownership are not superior in performance to companies with low ownership in non-crisis periods and Gerged et al. (2023) which states that high ownership concentration increases financial distress likelihood. Thus, hypothesis H2 is not rejected. The practical implication related to this finding is that regulators should develop CG rules and mechanisms that can support enhancement of transparency and disclosure of corporate activities (especially those related to family ownership). The mechanism must be accompanied by clear and strict sanction against any violations. Improving CG mechanisms is important for protecting all investors' rights and interests.

Regarding institutional ownership, table 4 shows that this variable affects the financial distress possibility negatively. This shows that during non-pandemic periods, high institutional ownership reduces the possibility of corporate financial distress. This condition supports hypothesis H3 and agrees with the findings of Gerged et al., (2023) and Younas et al., (2021). According to Gerged et al. (2023), with extensive expertise and capabilities, institutional investors are able to provide supervision and support that is important for companies to maintain the stability of their business performance. Institutional investors have an interest in the security of investments of their managed funds. When institutional investors are not satisfied with the firm's performance, institutional investors may normally withdraw the funds invested in the company (van Essen et al., 2013). However, when the ownership of company shares by institutional investors is getting bigger, selling shares is no longer a very attractive option, considering that selling large amounts of shares will certainly be more difficult and incur high costs, so institutional investors will prefer to involve themselves in monitoring and improving CG to improve company performance (Alshabibi, 2021; Jabbouri & Jabbouri, 2021). Institutional investors can also work with fellow institutional investors to form a representative group and submit their recommendation to the firm (Annuar, 2015). With this, institutional investors also help reduce information asymmetry (Gerged et al., 2023), so that it can better align the interests of management with its stakeholders (Afza & Nazir, 2015). With more aligned interests, the company will be better at managing its agency costs, increasing company resilience, and minimizing financial distress. The practical implication of the finding is that institutional ownership can be used as an indicator of corporate resilience. Non-institutional investors may consider investing in companies with high institutional ownership.

The interaction-term of the gender diversity of the BOC and the COVID-19 dummy doesn't show significant effect on corporate financial distress likelihood. It means that there is no difference in the effect of gender diversity of the BOC during the pandemic or non-pandemic period. One of the main issues related to this finding is the low level of gender diversity of the BOC in the companies studied, like the findings of Ramadhani & Adhariani (2017) and Salloum et al. (2013). Thus, hypothesis H4 is rejected.

Different things are shown by the interaction-term of family ownership and COVID-19 dummy, which shows a significant negative value on financial distress. This condition indicates that the positive effect of family ownership on financial distress likelihood weakens during the pandemic. This finding supports previous studies of Amore et al. (2022), Block & Ulrich (2023), and Jarchow et al. (2023). This indicates that during times of crisis, the family's socio-emotional

towards the company will encourage decision-making that serves the interests of the company's business continuity (Amore et al., 2022; Block & Ulrich, 2023). In addition, the management flexibility that family firms usually have will provide agility in determining strategic decisions that are useful to avoid financial difficulties during the crisis period (Calabrò et al., 2021). These conditions help increase firm resilience and reduce financial distress possibility during the pandemic. Thus, hypothesis H5 is not rejected. The practical implication of this finding is that, during periods of crisis, investors (especially institutional investors) can prioritize the focus of supervision and support for companies with low levels of family ownership. This is because companies with high family ownership have received socioemotional support from family investors.

Regarding the interaction-term of the institutional ownership and the COVID-19 dummy, table 4 doesn't shows any significant effect on corporate financial distress likelihood. The interaction between the two variables does not result in strengthening or weakening the financial distress likelihood, the negative effect of institutional ownership remains the same during non-pandemic period and pandemic period. With this result, there are indications that institutional investors have not provided differentiated oversight and extra support to the firms during the COVID-19 pandemic period.

Supervisory activities require high costs, including the costs of collecting and analyzing information and following up (Alshabibi, 2021). According to Jodjana et al. (2021) effective supervision is often not carried out by institutional investors due to limited incentives or authority to improve company performance. Furthermore, Alshabibi (2021) revealed that the limited authority of institutional investors in corporate governance generally occurs in companies whose ownership structure is controlled by families. During the pandemic period, the incentives received by institutional investors, both in terms of dividends or capital gains, will be limited, thus potentially making institutional investors passive in supervising. Institutional investors will be more selective in using their extra resources to be further involved in company management, especially in Indonesia, where company ownership is dominated by family investors. Hence, hypothesis H6 is rejected. The practical implication of this finding is that institutional ownership can be used as an indicator of corporate resilience. Since its effect remains negative during the crisis period, non-institutional investors may consider investing in companies with high institutional ownership. However, related to the findings that show no difference in the effect of institutional ownership in pandemic or non-pandemic periods, regulators can develop rules that provide enforcement regarding the communication mechanism between companies and investors (especially institutional investors). On the other hand, companies must also be pro-active in communicating with their investors (especially institutional investors) to gain access to potential benefits they need, during the crisis.

CONCLUSION

This research investigates the influence of BOC's gender diversity, family ownership, and institutional ownership on the likelihood of financial distress during the 2017-2022 period. This study observed 108 non-pharmaceutical manufacturing public companies in Indonesia, obtaining a total of 648 firm-year observations. The study reveals that in the non-pandemic period, gender diversity of the BOC doesn't have significant effect on the likelihood of financial distress, family ownership has a significantly positive effect on the likelihood of financial distress, while institutional ownership has a significantly negative effect on the likelihood of financial distress. During the pandemic period, there is no significant change in the effect of the gender diversity variable of the BOC on the likelihood of financial distress, the positive effect of the family ownership variable on the possibility of financial distress is significantly weakened, and the negative effect of institutional ownership on the possibility of financial distress has not changed significantly.

LIMITATION

This research has several limitations. First, this research was conducted on publicly traded Indonesian manufacturing companies, so it is not necessarily appropriate in the context of other different groups of companies or countries. Furthermore, the BOC's diversity is focused only on the gender perspective and has not considered other perspectives such as educational background, nationality, and so on. In addition, family ownership is determined solely by the amount of cash flow rights from ownership and has not considered its control rights over the company.

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