

Good corporate governance on performance: The moderating role of covid-19

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ABSTRACT

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This study highlights the importance of good corporate governance in company performance, especially during the Corona Virus Disaster 2019. This study examines the impact of various factors on firm performance, with an emphasis on corporate structure and practices. The variables under investigation include board size, board independence, board gender diversity, board meetings, board financial qualifications, audit committee size, and audit committee meetings. This study analyzed 137 manufacturing companies listed on the Indonesia Stock Exchange from 2017 to 2021, which were selected using a purposive sampling method. The analysis used panel data regression and descriptive statistics using STATA tools. The analysis used panel data regression and descriptive statistics using STATA tools. The results showed that board size, board independence, and audit committee meetings improved company performance during crises. However, the presence of women on the board, frequency of board meetings, and financial education of board members can negatively impact performance.

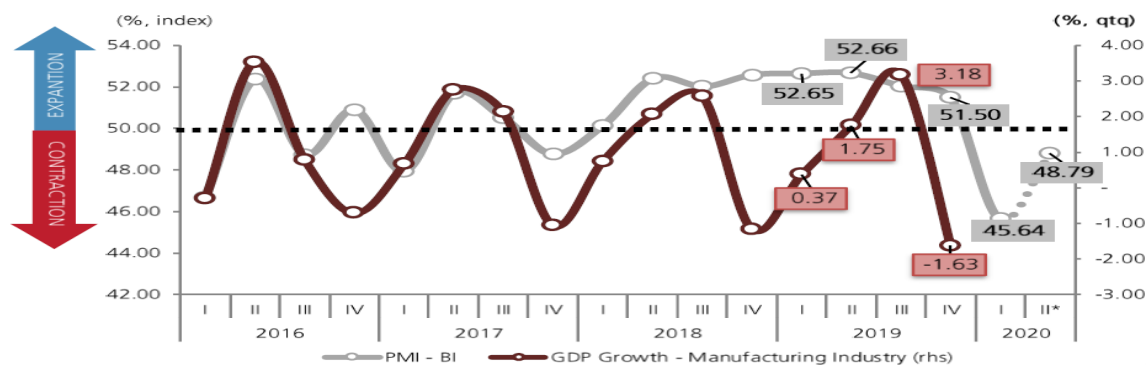
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1. Introduction

The Corona Virus Disaster 2019, also known as COVID-19, has had a major effect on the economic conditions of various countries, including Indonesia. To prevent the number of cases from increasing, most governments have implemented isolation and quarantine measures (Brodeur et al., 2021; Fairlie & Fossen, 2021). The establishment of migration restriction rules to minimize the spread of COVID-19 does not seem to be effective in preventing this adverse impact on the global economy. Ali et al. (2020), Baker et al. (2020), and Zhang et al. (2020) also pointed out that the extraordinary uncertainty caused by the outbreak and the economic damage it has caused has made the market extremely volatile and unpredictable. In companies, COVID-19 has affected the stock market, company performance, and other aspects (Cornett et al., 2010; Liu et al., 2020; Shen et al., 2020).

Figure 1 show Prompt Manufacturing Index (PMI) data. Manufacturers contracted in the first quarter of 2020, with the index falling to a contraction phase of 45.64% from 51.50% in the fourth quarter of 2019. Furthermore, the PMI slightly improved from 48.79% to 45.64% in the first quarter of 2020.



Source: Bank Indonesia (2020)

Figure 1. Prompt Manufacturing Index

Simultaneously, good corporate governance plays an important role in regulating company performance. This is particularly true for organizations facing difficult strategic decisions such as balancing worker protection, operational costs, and financial returns (Rinaldi et al., 2020). Khatib et al. (2020) emphasize the role of corporate governance policies that affect directors' company performance. Company performance is important in operating a company because it is an assessment and evaluation of the company from a financial perspective, revealing the state of a company and showing the level of effectiveness and efficiency of the organization in achieving its goals (Kao et al., 2018).

Khatib and Nour (2021) study the factors that influence firm performance. They found that board size, gender diversity, independence, meetings, financial qualifications, and audit committee size all have an impact on firm performance. A larger board size is considered better because of its diverse expertise and positive impact, which is supported by Kılıç and Kuzey (2016). Guney et al. (2020) found that increasing board size has a negative effect on firm performance. Sheikh and Alom (2021) reported insignificant positive results, whereas Xu et al. (2016), Al Farooque et al. (2020), Simionescu et al. (2021), Musallam (2020), and Alajmi & Worthington (2023) find insignificant negative results. Moreover, research suggests that having a higher proportion of independent board members can improve company performance by providing effective monitoring and limiting managerial opportunism (Al Farooque et al., 2020; Murtaza et al., 2020; Alajmi & Worthington, 2023). Pearce and Zahra (1992) find positive results, but Ozdemir (2020) and Khatib and Nour (2021) find insignificant positive results. Other researchers found negative results, such as Brafman and Brafman (2010) and Fariha et al. (2022), while Kılıç and Kuzey (2016) and Simionescu et al. (2021) found insignificant negative results.

Board gender diversity can affect firm performance (Kılıç & Kuzey, 2016). From the agency theory perspective, gender diversity is an important corporate governance mechanism that can enhance board independence by providing a wider range of views and opinions. Research has shown that gender diversity can reduce costs associated with agency problems and improve company performance. Reguera-Alvarado et al. (2017) found positive effects, which was supported by Ozdemir (2020) and Hosny and Elgharbawy (2022). Khatib and Nour (2021) and Simionescu et al. (2021) find insignificant positive effects. However, Adams and Ferreira (2009) found that high board gender diversity can harm a company through additional counterproductive monitoring. It is important to note that this research is not conclusive and

further studies are needed (Khatib et al., 2020; Khatib & Nour, 2021). Board meetings can improve company performance by regularly assessing its performance and monitoring operations. This allows for timely and effective problem solving through discussion and diverse opinions, leading to better decision-making and overall company performance (Vafeas, 1999). This is supported by Khatib and Nour (2021) and Fariha et al. (2022), but in contrast to empirical findings, Al Farooque et al. (2020) and Alajmi and Worthington (2023) report both significant and insignificant negative results.

The possession of board financial qualifications is associated with positive abnormal returns, particularly in small companies that require access to finance, and can enhance company performance through risk management control. The presence of financial expertise on the board of directors is crucial for ensuring business continuity (Hosny & Elgharbawy, 2022). However, some studies have found insignificant positive results (Darmadi, 2013; Arumona et al., 2019; Khatib & Nour, 2021). The size of the audit committee has been found to enhance firm performance by improving the quality of formalities. The audit committee is a crucial component of an effective corporate governance system. Therefore, the effectiveness of audit committee monitoring depends on the committee size (Al-Okaily & Naueihed, 2020). Musallam (2020) conducted research that supports this claim, while Fariha et al. (2022) found negative results, and Al Farooque et al. (2020) and Alajmi and Worthington (2023) found insignificant results.

It has been shown that a higher frequency of audit committee meetings leads to improved firm performance. Al Farooque et al. (2020) found that the audit committee holds regular meetings with both external and internal auditors to assess financial reports and establish policies for evaluating executive actions. This is consistent with the findings of Khatib and Nour (2021) and Fariha et al. (2022) who reported positive results. Al Farooque et al. (2020) also reported positive but insignificant results. Simionescu et al. (2021) produced negative results, whereas Alajmi and Worthington (2023) found insignificant results. Previous studies have shown inconsistent results on the impact of good company governance on performance. This study investigates the role of good company governance in performance during the COVID-19 pandemic. Therefore, it is important to examine this phenomenon in the context of COVID-19 to determine whether there are any differences in the role of good corporate governance before and during COVID-19.

2. Literature Review and Hypothesis Development

2.1. Agency Theory

The theory of agency is defined as a contractual relationship between stakeholders and owners involving managers (agents) (Jensen & Meckling, 2019). Important notes in this definition are as follows: First, there is an agreement between the principal and the agent. Second, the principal has control over the agent. Third, the agent acts on behalf of the principal (Phelan, 2008). The cause of the problem in Agency theory is that the interests of the principal need to be fulfilled because agents sometimes fulfill their interests. Agency problems arise when agents do not always act to maximize the welfare of the principal, which can trigger agency costs (Jensen & Meckling, 2019). Agency theory explains that ownership can be an important governance mechanism to monitor management (Shleifer & Vishny, 1997). Agency costs and hold-up problems associated with the separation of control and ownership can only be minimized through effective governance mechanisms. Corporate governance not only strengthens managerial responsibility but also increases the

confidence of managers to improve the performance of the company towards maximizing profits rather than pursuing their objectives (Nidumolu, 2018).

2.2. Hypothesis Development

2.2.1. The Positive Effect of Board Size on Firm Performance

According to Croci et al. (2020), Khatib et al. (2020), Khatib and Nour (2021), board size is the main responsibility of corporate governance in overseeing management decisions and being able to play a role in setting policies. Board size is used as an indication of supervisory and advisory roles (Klein, 1998). The number of directors on an organization's board is an important measure of good corporate governance and represents board size (Musah & Adutwumwaa, 2021). Andres and Vallelado (2008) suggest that the board of directors should be at most 19 directors. In terms of agency theory, the board has a supervisory function to keep managers acting in accordance with the interests of stakeholders (Gaur et al., 2015; Mazzotta & Ferraro, 2020). A larger board size is better and has positive implications because it has diverse expertise and is considered better Khatib and Nour (2021). This argument is also supported by (Kılıç & Kuzey, 2016). Guney et al. (2020) state that increasing board size will have a negative effect on firm performance. Sheikh and Alom (2021) find insignificant positive results, but Xu et al. (2016), Al Farooque et al. (2020), Musallam (2020), and Simionescu et al. (2021) found insignificant negative results.

H₁: Board Size Has a Positive Effect on Firm Performance

2.2.2. The Positive Effect of Board Independence on Firm Performance

The purpose of board independence is to monitor the actions of executive directors, avoid deviation from social interests, and pursue individual goals. Agency theory explains that because board independence can actively supervise managers' decisions, board independence should occupy the majority of board seats. Board independence can help reduce agency costs. Board independence may be important in monitoring and regulating sustainable development issues. They have lower potential conflicts of interest, and they are seen as a tool that connects external stakeholders with the company. The independent board according to Murtaza et al. (2020), an independent board with a higher proportion will improve company performance, which will result in effective monitoring and limit managerial opportunism. This perception is also supported by Al Farooque et al. (2020) and Alajmi and Worthington (2023), who found positive results, but researchers Ozdemir (2020) and Khatib and Nour (2021) showed insignificant positive results and other researchers showed negative results Brafman & Brafman (2010) and Fariha et al. (2022) and insignificant negative (Kılıç & Kuzey, 2016; Simionescu et al., 2021).

H₂: Board Independence Has a Positive Effect on Firm Performance

2.2.3. The Effect of Board Gender Diversity on Firm Performance

Board gender diversity is now considered a driver of better business (Robinson & Dechant, 1997). Related to agency theory, the participation and role of women boards can be seen from an agency perspective as one aspect of controlling agency conflicts in the company. Gender diversity in an organization has major benefits, namely responding to emerging consumer markets with good communication (Daily et al., 1999), overcoming skill and talent shortages, better employee performance (Kochan et al., 2003), and improving the company's reputation (Brammer et al., 2009). Women act as supporters of positive behavior among board members and are able to enhance the monitoring role (Adams & Ferreira, 2009). According to Hillman and Thomas (2003) and

Bear et al. (2010), an increase in gender on the board is able to improve decision-making because women consider broader issues, produce more satisfied values, and increase the number of board members with advanced degrees. Gender diversity is a mechanism that can reduce costs associated with agency problems so that company performance increases (Reguera-Alvarado et al., 2017) and supported by Ozdemir (2020) and Hosny and Elgharbawy (2022), which show positive and Khatib and Nour (2021) and Simionescu et al. (2021) show insignificant positive. Meanwhile, Adams and Ferreira (2009) show that high board gender diversity will harm the company due to additional counter-production monitoring. Then, board gender diversity affects Firm performance, as revealed by Kılıç and Kuzey (2016). The research is agreed by (Khatib et al., 2020; Khatib & Nour, 2021).

H₃: Board Gender Diversity Has a Positive Effect on Firm Performance

2.2.4. The Effect of Board Meeting on Firm Performance

The more frequent the meetings, the more monitoring and supervision of management is needed so that performance can be improved (Liang et al., 2013). Board meetings are an important source of increasing board effectiveness (Mayur & Saravanan, 2017). The best way to do this is to hold effective and frequent meetings with executives to assess the technical, physical, intellectual, and emotional support they require (Sivaprasad & Mathew, 2021). Board meetings can improve decision-making, which improves overall company performance (Vafeas, 1999), and this is agreed upon by Khatib and Nour (2021) and Fariha et al. (2022). In contrast, the empirical findings of Simionescu et al. (2021) show significant results, and Al Farooque et al. (2020) and Alajmi and Worthington (2023) show insignificant negative results.

H₄: Board Meeting Has a Positive Effect on Firm Performance

2.2.5. The Effect of Board Financial Qualification on Firm Performance

A degree in a finance-related field is able to provide board members with financial competencies that can help them perform their duties more competently, which in turn improves company performance (Jeanjean & Stolowy, 2009). As explained by Hudson (2017), to fulfill their responsibilities, including overseeing the company and monitoring management's performance, board members need to be knowledgeable. Board financial qualification is associated with positive abnormal returns, especially in small companies that need access to finance and are able to improve company performance through risk management control. Lack of financial skills on the board of directors can threaten business continuity (Hosny & Elgharbawy, 2022), which shows a positive effect. However, other researchers found insignificant positive results (Darmadi, 2013; Arumona et al., 2019; Khatib & Nour, 2021). Board financial qualification is associated with positive abnormal returns.

H₅: Board Financial Qualification Has a Positive Effect on Firm Performance

2.2.6. The Effect of Audit Committee Size on Firm Performance

They are responsible for overseeing internal and external auditors to reduce financial misstatements, providing accurate information to the public, including investors and governmental authorities, and protecting stockholders. In fact, the size of the audit committee is widely recognized as one of the characteristics most closely associated with corporate decision-making (Alajmi & Worthington, 2023). Fama and Jensen (1983) caused by inadequate control mechanisms and managers who undermine the interests of stockholders. Therefore, in order to achieve sustainable positive performance, audit committees need to be effective and efficient in resolving such

conflicts (Klein, 2002). Audit committee size improves firm performance through improved quality of formalities. A key component of an effective corporate governance framework is the audit committee. Thus, the effectiveness of audit committee monitoring depends on committee size (Al-Okaily & Naueihed, 2020). This is supported by research by Musallam (2020), which shows significance, but some show negative results, such as Fariha et al. (2022) and insignificant (Al-Okaily & Naueihed, 2020; Al Farooque et al., 2020; Alajmi & Worthington, 2023).

H₆: Audit Committee Size Has a Positive Effect on Firm Performance

2.2.7. The Effect of Audit Committee Meeting on Firm Performance

According to Vafeas (1999), agency theory suggests that board regularity ultimately determines the quality and participation of a particular board in the firm's activities. Therefore, committee meetings should lead to better oversight mechanisms that incentivize executives to perform better. Thus, increasing the frequency with which the audit committee meets can help to improve firm performance (Al Farooque et al., 2020). For example, Abbott et al. (2003) found that companies with more than four meetings a year have a lower probability of restating their financial statements. There is also evidence to suggest that financially distressed firms tend to meet less frequently than non-defaulting firms. Increasing the frequency with which the audit committee meets has been found to be associated with improved firm performance. Al Farooque et al. (2020) found that meetings regularly assisted the audit committee in evaluating financial statements. Fariha et al. (2022), reveal positive results. However, some reveal positive results that are not significant (Al Farooque et al., 2020) as those that produce negative results by Simionescu et al. (2021) and insignificant (Alajmi & Worthington, 2023).

H₇: Audit Committee Meeting Has a Positive Effect on Firm Performance

2.2.8. The Effect of COVID-19 on Firm Performance

COVID-19 highlighted the importance of board oversight in monitoring uncertainty risk during pandemics. The outbreak resulted in high external risk, with investors withdrawing funding, policies, and organizational design in both the long and short term (Shen et al., 2020; Foss, 2021). The outbreak required boards to focus more on typical oversight, as it disrupted all aspects of operations and policy-setting roles of active supervision (Crocì et al., 2020; Khatib et al., 2020) to maintain company performance.

H₈: COVID-19 Has A Negative Effect on Firm Performance

2.2.9. Good Corporate Governance and Firm Performance during COVID-19

As the ongoing pandemic disrupts all aspects of corporate activity, boards should focus on their policy-setting role combined with active supervision, in addition to their typical supervisory role and maintaining their independence (Crocì et al., 2020; Khatib et al., 2020). The board should be prepared to intervene and take an active supervisory role when management is distracted or hindered by factors such as illness. The board should also assist in the development of programs to anticipate potential crises, such as the establishment of plans for the continuity of a distributed workforce. It should take into account new technology and potential adjustments to new operating conditions while complying with limits on executive pay (Khatib & Nour, 2021).

H₉: COVID-19 Moderates the Effect of Good Corporate Governance on Firm Performance

2.3. Research Framework

Figure 2 explains the conceptual framework of this study. Based on Figure 2, it can be explained that this study seeks to analyze the firm performance in terms of good corporate governance indicators and is moderated by COVID-19. In addition, this study also uses control variables to measure firm performance.

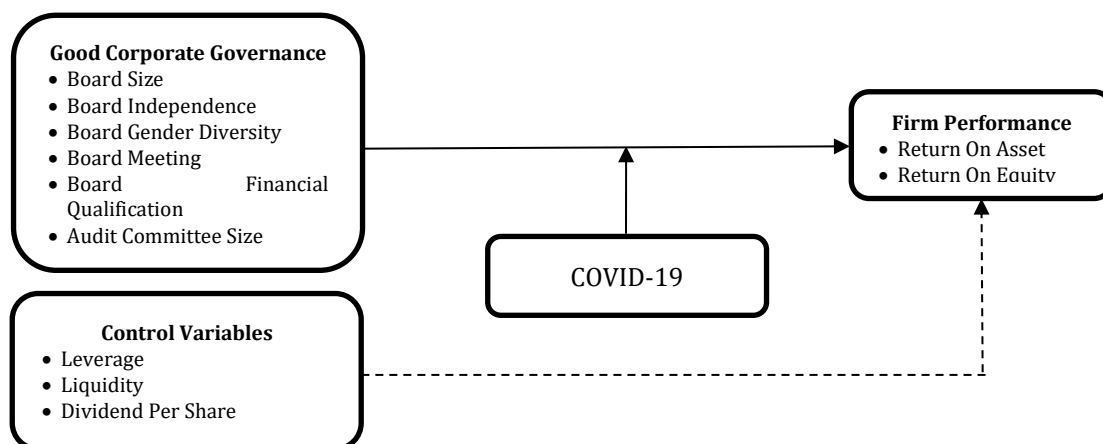


Figure 2. Research Framework

3. Research Method

3.1. Population and Sampling Method

In order to assess the relationship between good corporate governance and firm performance, as well as the impact of COVID-19 on these variables, this study collected sample data from 137 companies listed on the Indonesian Stock Exchange from 2017 to 2021 because researchers want to compare before and during the COVID-19. When all manufacturing companies were included, only 188 companies published their annual reports. Companies that are not included in this sample need to provide consistent financial data for five consecutive years from 2017 to 2021, and their shares were not actively traded on the Indonesia Stock Exchange during the period 2017 to 2021.

3.2. Data Collection Method

This study uses documentation data collection techniques from annual data and company financial statements. The objects and samples used in this study are manufacturing industry sector companies listed on the Indonesia Stock Exchange for the period 2017 to 2021. In addition, this research uses literature study methods from national and international journals, literature, and books, which are examples of applied literature research methods.

3.3. Data Analysis Method

This study employs two analytical methods: descriptive statistics and panel data regression. The statistics described are used to analyse the current events of the companies in the construction subsector listed on the Indonesia Stock Exchange for the period 2017-2021. In addition, the relationship between performance and governance was tested using a fixed-effects model. In order to select the appropriate panel data analysis method, the Hausman test and Chow's test are conducted with a significance level of 0.05 or less (Ghozali, 2018), and the results of both tests are insignificant, indicating that the fixed-effects model is the appropriate estimation method for our data. The model utilized in this study is presented in Model 1, Model 2, and Table 1.

Model 1

$$FP = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 BGD + \beta_4 BM + \beta_5 BFQ + \beta_6 ACS + \beta_7 ACM + \beta_8 COVID + \beta_9 BS * COVID + \beta_{10} BI * COVID + \beta_{11} BGD * COVID + \beta_{12} BM * COVID + \beta_{13} BFQ * COVID + \beta_{14} ACS * COVID + \beta_{15} ACM * COVID + e$$

Model 2

$$FP = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 BGD + \beta_4 BM + \beta_5 BFQ + \beta_6 ACS + \beta_7 ACM + \beta_8 COVID + \beta_9 BS * COVID + \beta_{10} BI * COVID + \beta_{11} BGD * COVID + \beta_{12} BM * COVID + \beta_{13} BFQ * COVID + \beta_{14} ACS * COVID + \beta_{15} ACM * COVID + \beta_{16} LEV + \beta_{17} LIQ + \beta_{17} DPS + e$$

Table 1. Research Variables

Variable	Measurement
Firm Performance	
Return On Asset (ROA)	Net income generated with total assets
Return On Equity (ROE)	Comparison of net profit with total equity
Good Corporate Governance	
Board Size (BS)	Number of members of the Board of Directors
Board Independence (BI)	Number of independent commissioners
Board Gender Diversity (BGD)	Number of female directors
Board Meeting (BM)	Number of meetings of members of the board of directors during one year
Board Financial Qualification (BFQ)	Number of directors with financial and economic education background
Audit Committee Size (ACS)	Number of audit committee size
Audit Committee Meeting (ACM)	Number of Audit committee meetings in a year
COVID-19	1 for years affected by COVID-19 and 0 for years before COVID-19
Control Variable	
Leverage (LEV)	The ratio of total debt to company assets
Liquidity (LIQ)	The ratio of current assets to short-term debt
Dividend Per Share (DPS)	Total value of dividends owned by shareholders

4. Results and Discussion

4.1. Correlation Analysis

In order to assess multicollinearity, a correlation analysis was carried out on all the variables included in the model. All independent variables were found to have correlation values below 0.5, as shown in Table 2. The multicollinearity test generally highlights that a value no higher than 0.9 indicates no possibility of multicollinearity problems.

Table 2. Correlation Matrix

Variable	BS	BI	BGD	BM	BFQ	ACS	ACM	COVID	LEV	LIQ	DPS
BS	1.0000										
BI	0.4969	1.0000									
BGD	0.3149	0.1271	1.0000								
BM	0.0762	0.0853	-0.0131	1.0000							
BFQ	0.4230	0.2606	0.2385	0.0185	1.0000						
ACS	0.2371	0.1921	0.0071	0.1910	0.0509	1.0000					
ACM	0.1247	0.0483	-0.0011	0.2740	0.0090	0.2532	1.0000				
COVID	-0.0474	0.0170	0.0221	0.0173	-0.0100	0.0154	0.0209	1.0000			
LEV	-0.0445	0.0493	-0.0807	0.0034	-0.0785	0.0151	0.0161	0.0139	1.0000		
LIQ	-0.0646	-0.0359	-0.0308	-0.0429	-0.0512	-0.0096	-0.0383	0.0279	-0.1427	1.0000	
DPS	0.2126	0.0543	-0.0188	0.1521	-0.0251	0.0585	-0.0113	-0.0142	-0.1177	0.01213	1.0000

Source: Secondary Data Processed (2023)

4.2. Regression Test

The purpose of this section is the analysis of the relationship between good corporate governance attributes and firm performance. A set of good corporate governance and performance attributes were used to estimate the panel data regression between the variables, as shown in Table 3. To measure firm performance, return on assets and return on equity are used. The results of the regressions that include all of the control variables are presented in models one and three, while models two and four allow for a comparison of the results before and during COVID-19.

Table 3. Results of Panel Data Regression Analysis

Variable	ROA		ROE	
	1	2	3	4
BS	-0.0111** (0.0055)	-0.0088 (0.0057)	-0.0807*** (0.0242)	-0.0717*** (0.0253)
BI	-0.0093 (0.0108)	-0.0113 (0.0118)	0.0741 (0.0478)	0.0557 (0.0522)
BGD	-0.0093 (0.0112)	-0.0098 (0.0011)	0.1165** (0.0496)	0.1048* (0.0550)
BM	-0.0015 (0.0011)	-0.0009 (0.0011)	0.0017 (0.0051)	0.0016 (0.0052)
BFQ	0.0095 (0.0100)	0.0149 (0.0104)	-0.0168 (0.0441)	0.0142 (0.0458)
ACS	0.0315* (0.0166)	0.0610*** (0.0190)	-0.0105 (0.0731)	0.1497* (0.0840)
ACM	0.0023* (0.0012)	0.0033** (0.0015)	0.0074 (0.0054)	0.0115* (0.0067)
COVID	-0.0288*** (0.0071)	0.1819** (0.0603)	-0.0481 (0.0313)	0.9971*** (0.2657)
COVID*B		0.0004 (0.0043)		0.0047 (0.0192)
COVID*BI		0.0146 (0.0106)		0.0157 (0.0469)
COVID*BGD		-0.0048 (0.0085)		0.0200 (0.0375)
COVID*BM		-0.0017** (0.0007)		-0.0009 (0.0031)
COVID*BFQ		-0.0051 (0.0094)		-0.0977** (0.0417)
COVID*ACS		-0.0680*** (0.0209)		-0.3172*** (0.0920)
COVID*ACM		0.0012 (0.0012)		0.0023 (0.0055)
LEV	-0.2205*** (0.0210)	-0.2234*** (0.0209)	0.0212** (0.0925)	0.1862** (0.0921)
LIQ	-0.0001 (0.0004)	-0.0001 (0.0004)	-0.0004 (0.0020)	-0.0004 (0.0020)
DPS	0.00005 (0.00009)	0.00005 (0.00009)	0.0002 (0.0004)	0.0001 (0.0004)
Constant	0.1348** (0.0561)	0.1705 (0.0657)	0.1470 (0.2472)	-0.4016 (0.2892)
R-Square	0.2109	0.2374	0.0493	0.0827
F-Statistic	13.05	9.16	2.53	2.65
Probability > F	0.0000	0.0000	0.0040	0.0003
Observation	685	685	685	685

Notes: ***, **, and * indicate significance at 1%, 5%, and 10%.

Source: Secondary Data Processed (2023)

4.3. Discussion

4.3.1. The Effect of Board Size on Firm Performance

Board size has a negative effect on the firm performance. Therefore, this does not support the hypothesis. However, this finding supports Guney et al. (2020) finding that small boards are efficient for overseeing operational performance. According to agency theory from Jensen (1993), smaller boards are more effective in managing executives due to fewer communication challenges. It also helps to avoid bias and maintain a balanced perspective. Therefore, it is recommended to have smaller boards for better efficiency and effectiveness. Lipton and Lorsch (1992) concluded that smaller boards make it easier to coordinate activities and bureaucracy and experience fewer free-rider problems among directors compared to larger boards. This is because smaller boards allow for a clearer structure with a logical progression and causal connections between statements. During meetings, the director is able to discuss their thoughts openly and transparently. This leads to a smaller board that is more consistent in its thinking and decision-making process.

4.3.2. The Effect of Board Independence on Firm Performance

The coefficient value for board independence indicates an insignificant negative effect on return on assets. In other words, a larger independent board of commissioners is likely to result in decreased company performance. However, this is insignificant because some companies that have an increased number of independent commissioners actually increase their return on assets. This study suggests that there is insignificant relationship between board independence and performance. Therefore, it may be difficult for independent directors to contribute to profit growth in the context of a manufacturing company (Fariha et al., 2022). Jensen (1993) argues that increasing the size of the board of commissioners may result in reduced asset returns due to ineffective oversight provided by the commissioners. Regarding return on equity, board independence has a positive but insignificant effect. This study is in agreement with the findings of Fariha et al. (2022). The more effective the supervision carried out by a board that has no direct affiliation with the company, the more optimal the company's ability to manage its profitability. According to Alajmi and Worthington (2023), agency theory suggests that agency problems can only be solved with disinterested directors, so it can be argued that a significant number of independent directors can improve firm performance by providing additional oversight. This insignificance is due to companies increasing their board independence while equity turnover rates decrease.

4.3.3. The Effect of Board Gender Diversity on Firm Performance

The study found that there is insignificant correlation between board gender diversity and return on assets. Research suggests that having women on the board may lead to underperforming companies. This statement is based on the assumption that female board members take more factors into account when making decisions. This may lead to lower company performance (Brammer et al., 2009). Regarding return on equity, the impact of board gender diversity is positive but not statistically significant. Following agency theory, having women on the board of directors can decrease information asymmetry and provide more effective guidance to managers (Anderson et al., 2011; Reguera-Alvarado et al., 2017). Women play a role as enablers of positive behavior among board members and can enhance the monitoring function (Adams & Ferreira, 2009). The limited impact of female board members on the financial risk of companies has been attributed to the fact that many female board members currently hold executive positions. As a result, they are actively involved in the company's operations or have

connections with other board members.

4.3.4. The Effect of Board Meeting on Firm Performance

The results suggest that board meetings do not have a significant but negative effect on return on assets. Furthermore, it is also shown that an increase in agency costs is likely to occur through regular board meetings. This is supported by previous research (Alajmi & Worthington, 2023). According to Fama and Jensen (1983), a company's financial performance can be reduced by expenses such as travel and meetings. The influence of board meetings on return on equity is positively but not significantly correlated. Al-Daoud et al. (2016) state that a high frequency of board meetings can facilitate broader discussion and evaluation from multiple perspectives, which in turn improves decision-making and enhances board members' ability to oversee corporate activities, ultimately improving overall corporate performance.

4.3.5. The Effect of Board Financial Qualification on Firm Performance

Board financial qualification positively influences the return on assets. This indicates that education in finance can provide board members with knowledge and financial skills that support them in carrying out their duties more efficiently, which can potentially improve company performance. Hosny and Elgharbawy (2022) support the argument that financial skill diversity provides more resources that facilitate decision-making and problem-solving. The research shows a significant surge in the difference between return on asset and return on equity, resulting in return on equity results that contradict return on asset. The impact of board financial qualifications on return on equity was found to be negative. As found in the research conducted by Khatib and Nour (2021), having a high degree does not necessarily guarantee the ability to manage a company effectively. Education is only one of the criteria considered by companies, as possessing a degree only sometimes ensures one's ability to work well.

4.3.6. The Effect of Audit Committee Size on Firm Performance

The finding resulted in a positive return on assets and agreement with prior research (Al-Okaily & Naueihed, 2020; Musallam, 2020). The measurement of the audit committee is generally recognized as a characteristic closely related to business decision-making (Alajmi & Worthington, 2023). The expertise of the audit committee is necessary to address agency problems (Fama & Jensen, 1983). Therefore, the audit committee needs to operate effectively and efficiently to resolve such conflicts (Klein, 2002) and achieve outperformance on a sustainable basis. In contrast to return on equity, performance is negatively affected by the presence of an audit committee. The negative direction of the relationship explains that when the value of the audit committee increases, company performance decreases. This is influenced by various decisions made by audit committee members with different educational backgrounds. The research indicates that the decrease may be due to an increase in the number of audit committees, which means an improvement in control and supervision. This is influenced by various decisions made by audit committee members with different educational backgrounds. This is influenced by various decisions made by audit committee members with different educational backgrounds.

4.3.7. The Effect of Audit Committee Meeting on Firm Performance

The results of the research suggest that audit committee meetings have positive effects on return on assets and return on equity. This is consistent with the study of Al Farooque et al. (2020), which stated that frequent audit committee meetings can

optimize a company's performance. Audit committees that hold meetings more frequently will gain a deeper understanding of the company's condition. This helps to provide more effective monitoring and supervision mechanisms for financial activities, including the preparation and reporting of company financial information. According to Vafeas (1999), agency theory indicates that the sustainability level of board meetings ultimately determines the level of quality and involvement of certain boards in company activities.

4.3.8. The Effect of the COVID-19 on Firm Performance

The impact of COVID-19 on firm performance. The COVID-19 crisis has emphasized the importance of board oversight in monitoring uncertainty risks during such crises. The pandemic poses significant external risks, causing investors to withdraw their investments and demanding policy and organizational adjustments in both the short and long term (Fu & Shen, 2020; Foss, 2021). This indicates that COVID-19 has a negative effect on return on asset and return on equity, which is relevant to Xu and Jin (2022) research but not to Guney et al. (2020) and Atayah et al. (2022) find that COVID-19 has a positive impact.

4.3.9. The Effect of Good Corporate Governance on Firm Performance with COVID-19 as A Moderation Variable

Research findings suggest that COVID-19 moderates the impact of good corporate governance on firm performance. Specifically, COVID-19 has a pure moderation effect on the relationship between board size and return on asset, and return on equity. In contrast, the effects of board independence and broad gender diversity have potential moderation effects on return on asset and return on equity. COVID has a pure moderation effect on the relationship between board meetings and return on assets and a potential moderation effect on return on equity. COVID-19 moderates the potential impact of board financial qualification on return on asset and purely moderates the impact on return on equity. The pandemic also acts as a spurious moderation on the effect of the audit committee on return on assets and purely moderates return on equity. COVID-19 does not function as a predictive moderator of the effect of the audit committee meeting on return on asset, but it has the potential to moderate return on equity. COVID-19 does not function as a predictive moderator of the effect of the audit committee meeting on return on asset, but it has the potential to moderate return on equity. COVID-19 does not function as a predictive moderator of the effect of the audit committee meeting on return on asset, but it has the potential to moderate return on equity.

The results show that the COVID-19 outbreak, including frozen liquidity and the inability to fulfill contracts, has presented companies and boards with unprecedented challenges, operational disruptions, and system failures, supporting previous research by Khatib and Nour (2021). Well-managed companies will stand out from the crowd as the current crisis affects corporate governance attributes and company performance. Despite the negative impact of the pandemic, boards still have a key role to play in improving company performance. Some boards can review their current structure and assess which standard agenda of the board of directors should be reviewed to determine which items can be postponed or streamlined to allow more time for management to address the immediate challenges facing the company (Khatib & Nour, 2021).

The independence of the sustainability board plays a role, as the oversight role of an independent board is critical in crises. However, in times of crisis, the percentage of women will be lower due to their higher risk aversion (Vieira, 2018). The board has a significant negative impact on firm performance due to the high remuneration provided

to directors in the form of annual remuneration, membership fees, and per-meeting fees, which may be an additional burden that is difficult for firms to bear, especially in the current context of uncertainty (Khatib & Nour, 2021). Possessing a high degree in finance does not necessarily guarantee the ability to manage the company well. Education is only one of the criteria companies consider.

Dalton et al. (1999) report that the size of an audit committee can impact its effectiveness. Having too few or too many members can compromise its ability to monitor financial statements. Al-Okaily and Naueihed (2020) found that larger committee tend to lose focus and participate less than smaller ones. Regular meetings are crucial to ensure effective monitoring, especially during times of crisis.

5. Conclusion

In Indonesia's manufacturing sector, board size is detrimental to firm performance. This indicates that the smaller the board of directors, the better is the performance of a company (Guney et al., 2020). The findings indicate a correlation between the number of independent appointees and the results: the likelihood of firm performance will decrease in asset turnover (Jensen, 1993). Conversely, a greater number of independent commissioners increases equity turnover (Fariha et al., 2022). Having women on the board leads to more thoughtful decision making, which in turn can lead to a decrease in company performance (Brammer et al., 2009). Fama and Jensen (1983) found that the number of meetings held each year is critical, where more meetings to eat will cause a decrease in return on assets, but it can increase return on equity (Al-Daoud et al., 2016).

Crisis conditions during COVID-19 cause a company to experience unexpected economic shocks, resulting in negative results. During the pandemic, board size and independence do not matter in uncertain times, and audit committee meetings can improve company performance in times of crisis (Al Farooque et al., 2020). However, a company's performance can be negatively impacted by the role of women, frequency of board meetings, financial education of board members, and size of the audit committee (Khatib & Nour, 2021; Alajmi & Worthington, 2023). In terms of the limitations of this study, the research only focused on the years before and during the crisis, which resulted in the researchers' inability to compare performance after COVID-19. Only manufacturing companies in Indonesia were included in this study.

The researchers suggest that future research should consider approaches such as it is also important to note that this study did not examine larger samples, compare different markets, or examine the long-term effects of coronavirus. Future research should include other mechanisms such as different ownership structures, other board diversity indicators, dual directorships, and country-level governance, as not all governance attributes were included in this study. Additionally, the impact of the pandemic varies from one company to another. Thus, future research should investigate the impact of COVID-19 on organizational outcomes as well as other firm and country characteristics.

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