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Gender Diversity in the Boardroom and Earnings Quality: The Monitoring Role of Institutional Ownership

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ABSTRACT

Purpose : Earnings are a critical component of the income statement because most investors use them to make investment decisions in the company. Consequently, board of directors has a critical responsibility to present high-quality earnings reports and free from any elements of manipulation to ensure that investors are not misled when using them as a performance benchmark. The purpose of this study is to provide empirical evidence regarding the effect of board of directors' gender diversity on earnings quality. Furthermore, this study also investigates the moderating role of institutional ownership on the effect of board of directors' gender diversity on earnings quality.
Method : The study uses a sample of 682 firm-year observations of manufacturing companies on IDX from 2015 to 2019. The data analysis technique used is Moderated Regression Analysis (MRA) with an Ordinary Least Square (OLS) approach.
Findings : The study finds that the improvement in the quality of reported earnings is not determined by the level of gender diversity among company directors. Furthermore, this study also proves that the effectiveness of institutional ownership roles can help strengthen the gender diversity mechanism to improve the quality of reported earnings. This finding suggests that in developing countries such as Indonesia, the role of institutional ownership is effective in providing external monitoring of the firm's board and reducing the board's incentives to manipulate the firm's earnings.
Novelty : The study is the first to examine the moderating role of institutional ownership in the board of directors' gender diversity and earnings quality.

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INTRODUCTION

In the current situation, shareholders consider various things related to their investment decisions, both financial and non-financial information. The Income statement is one of the financial information used by users to make decisions (Arianpoor & Farzaneh, 2022) because it contains earnings information that reflects the operating performance of the company (Irwansyah et al., 2020; Nurbach et al., 2019). Because earnings information is essential, stakeholders often use it as a basis for decision-making (Arianpoor & Farzaneh, 2022; Eugster & Wagner, 2021; Pamuji & Naimah, 2022). Thus, earnings are an essential component of financial information, therefore companies should be able to care about the quality of their reported earnings. Earnings quality refers to the level of relevance of earnings to measure the firm's financial performance (Subramanyam, 2014, p. 114). Dechow et al. (2010) argue that high earnings quality provides more information related to the firm's financial performance, which is specifically relevant to the decisions of specific users. Thus, the presentation of quality earnings information should be undertaken by firms because high earnings quality will describe financial performance characteristics that are more relevant to decision-making, thus the earnings information presented does not mislead its users and cause errors in weighing their decisions in the firm.

One theory that can explain the reasons for high or low earnings quality in a company is the agency theory. According to this theory, the disclosure of earnings quality, whether high or low, is strongly influenced by management's motivation within the company, which arises from a conflict of interest. This is because management and shareholders are often assumed to have different interests, with shareholders wanting good performance from the company and management wanting high incentives for their work (self-interest). However, in reality,

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management's performance is often not directly proportional to their incentives, thus management tends to use their authority within the company to exploit accounting procedures (Habib et al., 2013; Nurbach et al., 2019). This encourages management to engage in earnings management, which can reduce the quality of the company's earnings since they do not accurately reflect the reality of the company as they should be (Ghazalat et al., 2017). Thus, it is assumed that the board of directors, as the company's management, can influence the quality of the company's earnings (depending on its motives) since the board of directors has the discretion to choose the accounting methods to be used by the company.

There have been various financial scandals recently, such as PT Hanson (2016) and PT Garuda (2019). According to Sandria (2021), in the PT Hanson scandal in 2016, the company's CEO was found to have violated the Capital Market Act because his company was found to have recognized revenue too early and failed to disclose the sale and purchase agreements in the financial statements. As a result, PT Hanson's financial statements in 2016 were overstated by IDR 613 billion due to the untimely recognition of revenue. Furthermore, PT Garuda in 2019 also experienced a scandal similar to PT Hanson in 2016, where PT Garuda prematurely recognized revenue from its cooperation agreement with PT Mahata Aero Teknologi worth Rp 3.48 trillion. This ultimately led to an increase in PT Garuda's reported net profit when it should have recorded a loss of Rp. 2.53 trillion.

Various financial scandals, such as PT Hanson (2016) and PT Garuda (2019), are consequences of ineffective and weak corporate governance functions in preventing opportunistic behaviour from management. An essential good corporate governance (GCG) mechanism expected to mitigate management's opportunistic behavior is board of directors' diversity (Khatib et al., 2021; Orazalin, 2020). Diversity among directors is a critical issue that has been focused on in various previous literature (Bassyouny et al., 2020; Nadeem et al., 2020). A diverse board of directors, with a sufficient level of representation, is thought to improve corporate governance by reducing information gaps between the company and investors, discouraging management from acting in their self-interest, and lessening the temptation to manipulate financial reports (Chen et al., 2015; Khalil & Ozkan, 2016). Several previous studies have found that the more diverse a company's board is, the more it tends to benefit from several advantages, such as helping to obtain a variety of information from the broader environment about competitors, social groups, suppliers, customers, and regulators (Elsharkawy et al., 2018; Tee & Kasipillai, 2022; Zalata et al., 2022). This is because diversity provides companies with many perspectives. In addition, Perryman et al. (2016) also found that heterogeneity in decision-making within the board helps to solve problems and make better decisions because directors can critically analyze a situation from many perspectives. Therefore, it would be interesting to investigate how diversity within the board can increase the quality of earnings.

Various aspects of board diversity have received considerable attention in previous literature and have been argued to affect the effectiveness of the decision-making process, such as age, education, gender, or nationality (Temprano & Gaite, 2020). Since gender diversity is particularly important in the boardroom (Budastra et al., 2023; Zalata et al., 2022), it is essential to further investigate its impact on earnings quality. Moreover, recent studies have raised several debates regarding the effectiveness of gender diversity among directors and various companies' outcomes. Therefore, it is essential to revisit studies on gender diversity in the boardroom.

Previous literature has seen gender diversity in the boardroom as one of the key aspects of diversity. The gender issue focused on here is the presence of female directors, as problems of gender inequality often lead to women being assessed as having lower social capital and poorer negotiation performance than men (Jadiyappa et al., 2019). In reality, women tend to be underrepresented in top management positions (Menicucci & Paolucci, 2022). This suggests that women often experience discrimination within companies, where they tend to be less involved in decision-making at the company's top positions. However, a growing body of studies argues that gender-diverse boards can lead to more accurate and transparent financial reporting. For example, Zalata et al. (2019) found that increasing the number of female directors can lead to greater independence, improved functioning, enhanced efficiency, and more effective oversight. Furthermore, the study by Ginesti et al. (2018) states that increasing the number of women on boards can strengthen corporate governance by promoting more rigorous reporting practices because women tend to be conservative in making risky decisions. This indicates that enhancing gender diversity within boards could enhance corporate governance by diminishing manipulative accounting behaviors. Women serving on boards might introduce a more cautious perspective, potentially lowering the chances of engaging in earnings manipulation that could adversely impact the company's sustainability and ultimately diminish the earnings quality.

However, several previous studies examining the effect of gender diversity among directors on the quality of reported earnings remain inconclusive. While some studies suggest a positive effect (Githaiga et al., 2022; Kouaib & Almulhim, 2019; Liu et al., 2016; Panzer & Müller, 2015; Zalata et al., 2022), others report negative effect (Azeez et al., 2019; Saraireh et al., 2022) or neutral effects (Binashour et al., 2021; Hashim et al., 2019; Lara et al., 2017; Othman & Balqaa, 2019). These conflicting findings highlight the need for further investigation to clearly determine the effect of gender diversity among directors on earnings quality.

Based on the explanation given, it can be explained that several previous studies examining the effect of the directors' gender diversity on firm earnings quality still provide contradictory results. This leads us to believe that there are other factors that should be able to explain this relationship, one of which is institutional ownership. Jensen & Meckling (1976) have demonstrated that one of the most effective ways to reduce conflicts of interest in

companies is to improve the monitoring mechanism, and one of the parties that plays the most significant role in this is institutional investors. Institutional owners with a substantial share of ownership in the company will have the power and incentive to monitor and influence management decisions, thus their presence is expected to reduce earnings management practices and improve earnings quality (Arianpoor & Farzaneh, 2022). Furthermore, in the context of developing countries, Panda & Leepsa (2019) study proves that institutional ownership is highly involved in the external monitoring activities of management in emerging markets.

Thus, when the board of directors' gender diversity occurs in firms where institutional investors own the majority of shares, not only can women contribute their perspectives more effectively to the decision-making process, but there is also an external monitoring activity that institutional ownership performs in the process, which reduces various opportunistic behaviors of directors in the financial reporting process (conflicts of interest) and improves earnings quality. These arguments are also supported by several previous studies that have found a positive effect of institutional ownership on the quality of reported earnings (measured by earnings management) (Gao et al., 2017; Kaldonski et al., 2020; Kutha & Susan, 2021; Mehrani et al., 2017). Most of their studies argue that institutional ownership's monitoring function effectively reduces managerial opportunistic behavior in financial decision making.

The objective of this study is to provide empirical evidence regarding the effect of the board of directors' gender diversity on earnings quality. Furthermore, this study also investigates the moderating role of institutional ownership on the effect of gender diversity among directors on the quality of earnings. The novelty of this study is the inclusion of the institutional ownership variable as a moderator within this relationship. This study contributes to the existing literature by highlighting how the effectiveness of institutional ownership in corporate governance can clarify the impact of gender diversity among board members on the quality of a firm's earnings.

Board of Directors Gender Diversity and Earnings Quality

Drawing on agency theory, we can posit that the inherent conflict of interest between shareholders and management can influence the quality of a firm's earnings. In reality, management's performance is often not directly proportional to its incentives, thus management tends to use its authority to exploit accounting procedures to maximize its incentives (Habib et al., 2013; Nurbach et al., 2019). This indicates that the company directors may use manipulative accounting practices to achieve their objectives. In general, earnings management practices are believed to reduce the quality and credibility of financial reports (Hsieh et al., 2018). Therefore, diversity among the directors is expected to mitigate opportunistic managerial behavior (Khatib et al., 2021).

Gender is a critical aspect of board composition. Several studies reveal that gender diversity boards are increasingly seen as a way to promote the transparency and accuracy of financial disclosures (Ginesti et al., 2018; Zalata et al., 2019), as women tend to be more conservative when making decisions. In addition, women are seen as less involved in unethical behavior and can, therefore, effectively mitigate the opportunistic behavior of managers (Zalata et al., 2019). Thus, the presence of female directors tends to reduce various manipulative financial reporting practices that pose risks to the company.

While prior study underscores the importance of female board representation, several past studies have indicated that having gender diversity among directors has the potential to enhance the quality of corporate earnings, as measured by earnings management (Githaiga et al., 2022; Kouaib & Almulhim, 2019; Liu et al., 2016; Panzer & Müller, 2015; Zalata et al., 2022). Therefore, a hypothesis can be formulated:

H_1: Board of directors' gender diversity positively affects earnings quality

Institutional Ownership, Board of Directors Gender Diversity, and Earnings Quality

Agency theory explains that the most effective way to reduce conflicts of interest in the firm is to improve the monitoring mechanism. Institutional ownership serves as a key corporate governance mechanism, strengthening external oversight of the firm. This monitoring role helps mitigate agency costs and ensure that directors act in the company best interests, ultimately leading to improved financial performance (Rashed et al., 2018). Institutional ownership's ability to comprehensively monitor top management stems from their significant shareholdings in the company. This large stake grants them the power to exercise close oversight (Kutha & Susan, 2021; Mallin, 2018, p. 123) and influence management decisions (Arianpoor & Farzaneh, 2022). In the context of developing countries, Panda & Leepsa (2019) have demonstrated the high involvement of institutional ownership in comprehensive monitoring activities for management. Thus, it can be explained that institutional ownership plays a crucial role in externally monitoring management and influencing its decisions, especially in developing countries (such as Indonesia) where the involvement of institutional ownership in external monitoring activities is said to be high.

Companies with a high number of female directors and a strong institutional investor presence might see a more significant boost to the accuracy of their reported earnings. This is because women on the board are believed to be more cautious in their financial decisions and less likely to engage in unethical practices (Ginesti et al., 2018; Yahya et al., 2020; Zalata et al., 2019). Additionally, institutional investors act as external watchdogs, further discouraging misleading financial reporting by management. As a result, companies with this combination are better positioned to deliver reliable financial results. This argument is supported by research showing a positive link bet-

ween institutional ownership and earnings quality (Gao et al., 2017; Kaldonski et al., 2020; Kutha & Susan, 2021; Mehrani et al., 2017). Therefore, the hypothesis is formulated as follows:

H_2: Institutional ownership strengthens the effect of board of directors' gender diversity on earnings quality

RESEARCH METHODS

The population in this study is all manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019 (Table 2). This study uses purposive sampling techniques with the following criteria (Table 1): (1) manufacturing companies on the IDX for 2015-2019, (2) complete data available. The number of final observation samples obtained was 682 company years. The study data is an unbalanced panel type. This study utilizes secondary data from annual reports and the OSIRIS database.

Earnings quality (ABS_DA) refers to the extent to which the earnings reported by the firms can reflect the actual economic reality. In this study, earnings quality is measured using accrual earnings management (AEM), which is estimated through discretionary accruals employing the modified Jones model proposed by Dechow et al. (1995). The results of discretionary accruals, whether positive or negative, which deviate significantly from the value of 0, indicate low earnings quality (Ma & Ma, 2017). To provide a consistent description, the final value of earnings quality in this study is the absolute value of discretionary accruals, where the quality of earnings is considered high when the value is close to zero.

$$\frac{TA_t}{A_{t-1}} = \alpha 1\left(\frac{1}{A_{t-1}}\right) + \alpha 2\left(\frac{\Delta REV_t - \Delta REC_t}{A_{t-1}}\right) + \alpha 3\left(\frac{PPE_t}{A_{t-1}}\right) + \varepsilon_t \quad \text{......1}$$

Where; TA is total accruals (formula 1). At-1 refers to the previous year's total assets. ΔREV is a change in revenue. ΔREC is a change in account receivables. PPE refers to fixed assets in an ongoing year. Lastly, α is specific parameters. This study focuses on the board of directors' gender diversity, which is defined as the presence of female directors within the board. In this study, the directors' gender diversity is measured using the Blau Index proposed by Blau (1977) because measuring diversity by this index allows us to consider not only variable categories, but also the uniformity of the group distribution among them (Maji & Saha, 2021). Thus, measuring gender diversity using the Blau Index tends to be more representative than measures considering only the proportions. Gender in this study consists of two categories: male and female.

$$Blau\ Index = 1 - \sum_{i=1}^{K} Pi^2 \quad \text{......2}$$

Where; Pi is the percentage of every group in gender categories (formula 2). Lastly, K refers to a total number of participants in group categories. Institutional ownership (INS_OWN) refers to the proportion of shares held by institutional investors in a company. The company's institutional ownership is characterized by shareholders of PT (Perseroan Terbatas) and Ltd (Limited). This study calculates institutional ownership by dividing the total institutional shares by the total outstanding shares.

To minimize the potential bias of external factors in our results, we use several control variables. We include control variables that have potential determinants of earnings quality based on previous studies (Abidin et al., 2022; Githaiga et al., 2022; Kepramareni et al., 2021; Lusiana & Khafid, 2022; Shahwan & Almubaydeen, 2020; Yuan et al., 2023). According to their study, we identified six control variables, namely, directors' education level diversity (BD_EDUL), board size (BD_SZ), return on assets (ROA), leverage (LEV), firm size (FIR_SZ), and managerial ownership (MG_OWN). The diversity of directors' educational levels is assessed using the Blau index, which categorizes education level into four groups: bachelor's, master's, Ph.D., and other (no degree). Board size is quantified by the number of board members. ROA is determined by the ratio of net income to total assets. Leverage is measured by the ratio of debt to equity. Firm size is determined using the natural logarithm of total assets. Lastly, managerial ownership is calculated by dividing the total number of directors' shares by the total number of shares.

The study utilizes Moderated Regression Analysis (MRA) with Ordinary Least Square (OLS) approach to

Table 1. Sample Selection

No	Description	2015	2016	2017	2018	2019	Total
1	Manufacturing Company on the IDX	143	144	158	168	181	794
2	Missing data:						
	a. Discretionary accruals	-10	-12	-12	-12	-27	-73
	b. Directors' gender diversity	-	-	-	-	-	-
	c. Institutional ownership	-	-	-	-	-	-
	d. Control variables	-9	-4	-11	-12	-3	-39
Observation Samples		**124**	**128**	**135**	**144**	**151**	**682**

Table 2. Sample Distribution by Manufacturing Sub-Industry

Sub-sectors	N	Percentages (%)
Miscellaneous industry	194	28.4
Basic and Chemical	288	42.3
Consumer goods	200	29.3
Total	**682**	**100**

analyze the data. We propose three regression models to test the hypothesis: (1) the first model was used to test the direct effect of gender diversity among the directors on earnings quality, (2) the second model was used to see the type of moderation interaction of moderating variables, and (3) the third model explores the interaction of moderating variables on the effect of the board of directors' gender diversity on earnings quality.

Additionally, to ensure that the regression models used in this study are robust when applied to a different setting, we also perform a robustness check. We use a different measure of the board of directors' gender diversity, namely the proportion of female directors on the board. We use the same period as in the primary analysis.

The following is the regression specification developed in this study:

$$ABS_DA_{it}=\alpha_1+\beta_1 BD_GEN_{it}+\beta_2 Control_{it}+\varepsilon_{it} \quad \text{......E1}$$

$$ABS_DA_{it}=\alpha_2+\beta_3 BD_GEN_{it}+\beta_4 INS_OWN_{it}+\beta_5 Control_{it}+\varepsilon_{it} \quad \text{......E2}$$

$$ABS_DA_{it}=\alpha_3+\beta_6 BD_GEN_{it}+\beta_7 INS_OWN_{it}+\beta_8 BD_GEN*INS_OWN_{it}+\beta_9 Control_{it}+\varepsilon_{it} \quad \text{......E3}$$

Where; ABS_DA is absolute discretionary accruals. BD_GEN refers to the board of directors' gender diversity. INS_OWN is institutional ownership. Control is control variables. α refers to constant. β is the regression coefficient. ε refers to error. Lastly, t is firm years.

RESULTS AND DISCUSSIONS

Table 4 illustrates that the ABS_DA variable exhibits a standard deviation of 0.0663, with a mean of 0.0926. The minimum value recorded is 0.0004, while the maximum stands at 0.3118. This shows that the average value of absolute discretionary accruals from all company observations is 9.2%. Then, the lowest value of discretionary accruals is 0.004%, and the highest value is 31.1%. A low absolute discretionary accruals value indicates good earnings quality.

Furthermore, based on Table 4, the BD_GEN variable exhibits a standard deviation of 0.1845, a mean of 0.1312, a minimum of 0.0000, and a maximum of 0.5. This indicates that the average gender diversity index across all company observations is 13.1%. The minimum value of the gender diversity index is 0%, while the maximum value is 50%. The maximum value of the Gender Diversity Index in the data according to the Blau Index is 0.5 (2-

Table 3. Summary of Variables Measurement

Variables	Measurement	Source
Dependent Variable		
Earnings Quality (ABS_DA)	Absolute discretionary accruals estimated using Modified Jones Models	OSIRIS
Independent Variable		
Directors' Gender Diversity (BD_GEN)	Blau index with two categories: (1) male and (2) female	Annual Report
Moderating Variable		
Institutional Ownership (INS_OWN)	Institutional shares/outstanding shares	Annual Report
Control Variables		
Director Education Level Diversity (BD_EDUL)	Blau Index with four categories: (1) Bachelor, (2) Master, (3) Ph.D., and (4) other	Annual Report
Leverage (LEV)	Total liabilities/total equity	OSIRIS
ROA (ROA)	Net income/total assets	OSIRIS
Firm Size (FIR_SZ)	Natural logarithm of total assets	OSIRIS
Board Size (BD_SZ)	Number of board of directors	Annual Report
Managerial Ownership (MG_OWN)	Directors' shares/outstanding shares	Annual Report

Table 4. Descriptive Analysis

Variable	N	Std. Dev.	Mean	Min.	Max.
ABS_DA	682	0.0663	0.0926	0.0004	0.3118
BD_GEN	682	0.1845	0.1312	0.0000	0.5000
INS_OWN	682	0.2444	0.6521	0.0000	0.9971
LEV	682	31.0373	0.1037	-753.3576	162.1920
ROA	682	0.0869	0.0363	-0.3859	0.5266
BD_EDUL	682	0.2051	0.3555	0.0000	0.6667
BD_SZ	682	2.2427	4.9706	2.0000	14.0000
FIR_SZ	682	1.5328	21.6131	18.5813	26.5868
MG_OWN	682	0.0983	0.0296	0.0000	0.7000

1/2). The general presentation of the gender diversity index data suggests that, on average, the board of directors' gender diversity is very low across all company observations, as only a few sampled companies have female directors in their board structures. Therefore, we do not expect the BD_GEN variable to significantly impact ABS_DA partially.

Next, we can see from Table 4 that the variable INS_OWN has a standard deviation of 0.2051, a mean of 0.6521, a minimum of 0.0000, and a maximum of 0.9971. This indicates that the average proportion of institutional ownership across all company observations is 65.2%. The lowest proportion of institutional ownership is 0%, while the highest is 99.7%. Overall, the general presentation of the institutional ownership data suggests that, on average, the majority of shares in the sampled companies are owned by institutions.

Additionally, concerning the control variables outlined in Table 4, the LEV variable exhibits a standard deviation of 31.0373, with a mean of 0.1037, a minimum value of -753.3576, and a maximum value of 162.1920. Similarly, the ROA variable shows a standard deviation of 0.0869, a mean of 0.0363, a minimum of -0.3859, and a maximum of 0.5266. The variable BD_EDUL displays a standard deviation of 0.2051, a mean of 0.3555, with values ranging from 0.0000 to 0.6667. The variable BD_SZ presents a standard deviation of 2.2427, a mean of 4.9706, with a value range from 2 to 14. The FIR_SZ variable demonstrates a standard deviation of 1.5328, a mean of 21.6131, with values spanning from 18.5813 to 26.5868. Finally, the variable MG_OWN shows a standard deviation of 0.0983, a mean of 0.0296, with values ranging from 0.0000 to 0.7.

We perform a Pearson correlation test as a univariate test to analyze the initial strength of the linear relationship between the dependent and independent variables. The results in Table 5 show no significant relationship between BD_GEN and ABS_DA (β = 0.03). Furthermore, INS_OWN was found to have a negative relationship with ABS_DA (β = -0.159), suggesting that as the proportion of institutional ownership of the company's shares increases, the predicted earnings quality also increases. Furthermore, control variables such as ROA, BD_EDUL, BD_SZ, and FIR_SZ were found to have a negative relationship with ABS_DA, while MG_OWN was found to have a positive relationship with ABS_DA. On the other hand, the LEV variable was found to have no significant relationship with ABS_DA.

Based on Table 6 and equation (1), the results of testing the variable BD_GEN against ABS_DA indicate a lack of significant effect at all levels (t = -0.964, β = -0.012). Therefore, Hypothesis 1 in this study is rejected, concluding that the board of directors' gender diversity does not affect earnings quality. This is in line with our expectations, as, in reality, all sampled companies in this study still underrepresent women on their boards, resulting in a limited diversity in the gender diversity index.

On the other hand, based on Table 6 and equation (2), the results of testing the variable INS_OWN on ABS_

Table 5. Pearson Correlation Test

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1] ABS_DA	1								
[2] BD_GEN	0.03	1							
[3] INS_OWN	**-0.159**	**0.131**	1						
[4] LEV	0.045	0.022	-0.044	1					
[5] ROA	**-0.255**	**0.102**	**0.116**	**0.078**	1				
[6] BD_EDUL	**-0.106**	0.009	0.039	-0.036	**0.155**	1			
[7] BD_SIZE	**-0.323**	0.047	**0.09**	-0.018	**0.254**	**0.170**	1		
[8] FIR_SZ	**-0.464**	**-0.116**	**0.103**	0.015	**0.185**	**0.154**	**0.602**	1	
[9] MG_OWN	**0.118**	**0.093**	**-0.488**	0.023	-0.042	**-0.096**	**-0.135**	**-0.153**	1

Note(s): The **bold** label indicates a strong relationship between variables.

Table 6. Moderated Regression Analysis

ABS_DA	(1)	(2)	(3)
BD_GEN	-0.012	-0.006	0.073*
	(-0.964)	(-0.486)	-1.836
INS_OWN		-0.024***	-0.015
		(-2.291)	(-1.285)
BD_GEN*INS_OWN			-0.113**
			(-2.097)
LEV	0.000*	0.000*	0.000*
	(1.913)	(1.794)	(1.843)
ROA	-0.131***	-0.126***	-0.121***
	(-4.913)	(-4.694)	(-4.538)
BD_EDUL	-0.002	-0.002	-0.004
	(-0.141)	(-0.213)	(-0.381)
BD_SZ	-0.001	-0.001	-0.001
	(-0.401)	(-0.485)	(-0.477)
FIR_SZ	-0.018***	-0.018***	-0.018***
	(-9.800)	(-9.688)	(-9.755)
MG_OWN	0.031	0.001	-0.022
	(1.341)	(0.022)	(-0.786)
Adj. R^2	0.244	0.249	0.253
F-test	32.475***	29.251***	26.621***
Obs.	682	682	682

Note(s): ***, **, * significance at 1%, 5%, 10% level, respectively.

DA indicate a significant negative effect at the 1% level (t = -2.291, β = -0.024). This is in line with our theoretical and empirical arguments that the involvement of institutional ownership in external monitoring activities tends to be high in developing countries such as Indonesia. Consequently, their presence can prevent opportunistic behavior among directors in financial reporting and improve the quality of reported earnings.

Furthermore, Table 6 equation (3) has provided information that the test results of BD_GEN*INS_OWN on ABS_DA show a significant negative effect at the 5% level (t = -2.097, β = -0.113). Since a low ABS_DA value indicates good earnings quality, hypothesis 2 in this study is accepted. This analysis leads to the conclusion that institutional ownership strengthens the influence of the board of directors' gender diversity on earnings quality. According to Sharma et al. (1981), the moderating role of institutional ownership in this relationship is quasi-moderating.

Table 6 also reports our control variables' results. The testing results are consistent in all of our equations. Based on this, it was found that ROA and FIR_SZ have a negative effect on ABS_DA, while LEV has a positive effect on ABS_DA. This suggests that when company has a high ROA or large firm size, the board of directors may use less of their discretion on accruals, and it will increase the quality of earnings. Furthermore, if the companies have a high LEV, their board of directors may use their discretion on accruals more opportunistically and make the company report poor-quality earnings. Lastly, BD_EDUL, BD_SZ and MG_OWN does not affect ABS_DA.

A robustness check was performed to ensure that the primary test model's coefficients in the study remain robust when applied in different research settings. The form of robustness check performed was to use a different measure of the board of directors' gender diversity by using the proportion of female directors of the company. The results in Table 7 show that the main variables in each model consistently yield similar results to the primary test, where the results remain significant and have the same directions as those of the primary test. Therefore, it can be concluded that the regression model in this study is robust when applied to different settings.

Board of Directors Gender Diversity and Earnings Quality

Based on the results presented, this study provides evidence that the board of directors' gender diversity does not affect earnings quality. These findings suggest that gender diversity within the directors may not yet serve as a sufficiently effective corporate governance mechanism to mitigate various opportunistic behaviors in decision-making. Thus, its implementation has not been shown to improve the quality of reported earnings.

These findings do not align with the agency theory, which posits that the quality of a company's earnings is entirely under the control of the board of directors. According to this theory, board diversity mechanisms are necessary to prevent manipulative decisions that could potentially lead to poor reported earnings quality. However,

Table 7. Robustness Check

ABS_DA	(1)	(2)	(3)
BD_GEN	-0.01	-0.006	0.047
	(-0.709)	(-0.466)	(1.375)
INS_OWN		-0.025***	-0.017
		(-2.379)	(-1.476)
BD_GEN*INS_OWN			-0.086**
			(-2.037)
LEV	0.000*	0.000*	0.000*
	(1.903)	(1.788)	(1.840)
ROA	-0.132***	-0.125***	-0.123***
	(-4.920)	(-4.675)	(-4.609)
BD_EDUL	-0.001	-0.003	-0.002
	(-0.184)	(-0.241)	(-0.191)
BD_SZ	-0.001	-0.001	-0.001
	(-0.474)	(-0.516)	(-0.401)
FIR_SZ	-0.018***	-0.018***	-0.018***
	(-9.749)	(-9.687)	(-9.750)
MG_OWN	0.029	0.001	-0.008
	(1.288)	(0.025)	(-0.306)
Adj. R^2	0.244	0.249	0.251
F-test	32.394***	29.248***	26.393***
Obs.	682	682	682

Note(s): ***, **, * significance at 1%, 5%, 10% level, respectively.

this study finds that gender diversity within the directors is not an effective mechanism for enhancing the quality of firm earnings. A reasonable explanation for this lack of significance is that, in reality, Indonesian companies still involve fewer women in decision-making processes, as shown in the general overview of the research data (Table 2). On average, the diversity index resulting from gender diversity tends to be very low (13.1%). It is, therefore, not surprising that the gender diversity within the directors alone does not (partially) influence the quality of the company's earnings.

Lara et al. (2017) contend that there is little distinction in the behavior of women and men occupying top management positions. Therefore, they argue that the inclusion of women in these roles may not significantly enhance monitoring mechanisms within the financial reporting process and, consequently, may not have a discernible impact on the quality of reported earnings. Furthermore, Sila et al. (2016) contend that female directors exhibit similar risk-taking behavior to their male counterparts. In addition, Hashim et al. (2019) argue that directors' gender diversity alone may not be enough to enhance the quality of reported earnings. They suggest that a lack of women in top leadership positions limits the true impact of diversity on boards. Overall, we can explain that the presence of gender diversity within a company's board of directors has yet to demonstrate significant effectiveness in enhancing the quality of earnings. This is because both women and men in board positions often exhibit similar behaviors. Moreover, there is a common belief that women in top positions exhibit risk preferences similar to those of men. Therefore, the presence of women on boards of directors may not change financial decision-making. These findings support previous results (Binashour et al., 2021; Hashim et al., 2019; Lara et al., 2017).

Institutional Ownership, Board of Directors Gender Diversity, and Earnings Quality

This study provides evidence that institutional ownership strengthens the effect of gender diversity among the directors' members on earnings quality. This suggests that gender diversity in the boardroom alone may not suffice as a corporate governance tool to enhance earnings quality. Instead, it should be complemented by enhanced monitoring mechanisms facilitated by institutional ownership to more effectively improve the quality of reported earnings.

These results align with agency theory, indicating that enhancing monitoring mechanisms is crucial for mitigating conflicts of interest within companies. Institutional investors play an essential role in this, as they tend to hold a dominant and significant proportion of shares in companies, which gives them sufficient power to carry out optimal monitoring (Kutha & Susan, 2021; Mallin, 2018, p. 123). This is consistent with the reality of this study, as shown by the general data presented in Table 2, which shows that, on average, the proportion of share ownership

in the sampled companies is mainly dominated by institutional ownership (65% of the total outstanding shares). It is reasonable to expect that the monitoring function of institutional ownership in companies tends to be effective.

Arianpoor & Farzaneh (2022) argue that substantial institutional ownership in firms is likely to have the strength and incentive to conduct monitoring and influence management decisions. Furthermore, Panda & Leepsa (2019) argue that in developing countries, there is a high involvement of institutional ownership in monitoring activities towards management. In conclusion, it can be inferred that gender diversity among directors is not an effective mechanism for preventing opportunistic behavior in the financial decision-making process. This is due to the fact that men and women do not tend to behave differently when they are in top management positions (Lara et al., 2017; Sila et al., 2016). However, the ineffectiveness of the gender diversity mechanism can be overcome if it is accompanied by an increase in the share of institutional ownership of company shares. Thus, besides the limited presence of female directors contributing better perspectives to financial decision-making, there is also the external monitoring support provided by institutional ownership in the decision-making process. Ultimately, this may be more effective in preventing various opportunistic behavior within the board and improving the quality of reported earnings.

CONCLUSIONS

The study aims to find empirical evidence regarding the effect of the board of directors' gender diversity on earnings quality. Furthermore, this study also investigates the moderating role of institutional ownership on the effect of the board of directors' gender diversity on earnings quality. In our analysis, the agency theory perspective was used to explain the phenomenon regarding institutional ownership, board of directors' gender diversity, and earnings quality. This is because institutional ownership and the board of directors' gender diversity is a corporate governance mechanism expected to reduce the board's incentive to manipulate earnings opportunistically. As a result, we expect the implementation of those two mechanisms to increase the quality of earnings. Several conclusions can be drawn from the results and discussions presented. Firstly, the board of directors' gender diversity does not affect earnings quality. Secondly, institutional ownership strengthens the effect of the board of directors' gender diversity on earnings quality.

Theoretically, the results of this study have implications, suggesting that agency theory remain relevant in describing the current reality regarding directors, institutional ownership, and earnings quality. Practically, the results of this study have implications for companies, suggesting that if they want to improve their earnings quality, they should not only consider diversity in their board of directors, but also maximize the monitoring mechanisms of institutional ownership by increasing the proportion of shares they own in the company. This would enable their companies to achieve high earnings quality more effectively. In addition, the study findings have implications for investors, suggesting that when determining which companies have good earnings quality, they are likely to make such judgments by observing the diversity of the company's board of directors and the extent to which institutional investors are willing to invest in the company's shares. There is a limitation to this study. The gender diversity index scores in this study are very low, as all the companies in the sample still lack female representation on their boards of directors. As a result, future researchers could consider investigating the board of directors' gender diversity from a male perspective by focusing on their proportions.

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