

The Interplay between Board Gender Diversity, Earnings Quality, and Return Volatility: Considering the Reputation of Corporate Awards

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ABSTRACT: This study investigates the role of board gender diversity and earnings quality on return volatility by examining corporate reputation, as represented by Indonesia's Most Admired Company Award. This study examined 200 samples of companies in Indonesia's consumer cyclicals sector from 2018 to 2022. The data were analysed using a panel data estimation technique known as the random-effects model. The findings reveal that earnings quality can reduce return volatility, especially for companies that are ranked or have a good reputation. This study provides valuable insights for companies and policymakers, enhancing their understanding of the importance of earnings quality and corporate reputation for company sustainability. Overall, this study contributes to the literature by examining the relationships among board gender diversity, earnings quality, corporate reputation, and return volatility.

Keywords: board gender diversity, corporate reputation, corporate image awards, earning quality, stock return volatility.

I. INTRODUCTION

Investors may face the risk of stock price fluctuations that affect returns when investing in the stock market [1]. Several studies used return volatility to measure risk [2-7]. Uncertainty in stock return volatility threatens the stock market and obscures stock prices, which are considered the fairest representation of firm value [8]. However, controlled volatility indicates that the information distribution mechanism in a market functions properly [9]. High volatility increases the risk and instability of investing, causing investors' interest to fluctuate. Companies struggle to raise capital in the capital market because of the increased uncertainty in stock returns in a volatile market [10]. Consequently, investors must understand when stock prices change to determine when to buy or sell stocks. Calculating volatility enables market participants to control and reduce the market risk of traded assets, such as stocks.

We conduct this research on cyclical consumer companies in Indonesia for several following reasons. We analyse the role of board gender diversity and earnings quality on stock return volatility and the role of corporate reputation, represented by corporate image awards, in moderating the relationship. First, the Indonesian capital market is known for its high dynamics, as evidenced by the rapid increase in the number of investors and frequency of daily transactions. Data from the Indonesian Central Securities Depository show that, by the end of 2022 will reach 10.31 million investors, a 10-fold increase from 1.6 million investors in 2018. In addition, we focus on the consumer cycle sector because of the unique characteristics of consumer cycle companies in Indonesia, which offer non-essential and non-urgent products and services such as



clothing, processed food, hospitality, entertainment, and luxury goods. The demand for these products and services fluctuates in response to consumer demand. These demand fluctuations cause the company's financial conditions to fluctuate, resulting in higher stock return volatility relative to other more stable sectors.

Second, there is no regulation in Indonesia that requires female board members in companies, even though, gender equality is one of the requirements to achieve sustainable development goals, and Indonesia is committed to it. Therefore, gender engagement is interesting to study in the Indonesian context as gender diversity on boards is often associated with better outcomes and broader perspectives. Gender diversity on boards, a component of governance, is an important element affecting stock return volatility [11-13]. Good governance can help companies become more transparent, accountable, and better at decision-making, resulting in improved financial performance and shareholder value [14]. With gender variations on the board, the company can make policies from various perspectives [15] will affect investors' responses to the company and the volatility of stock returns. Therefore, assessing the elements of governance in a company, including gender diversity on the board, is important.

Third, previous studies used corporate social responsibility as a proxy for assessing corporate reputation [16, 17]. However, CSR assessments tend to be based on the company's disclosed activities [18] without considering the real impact of these activities, making it difficult to compare the company's reputation with that of other companies. However, we use data from Indonesia's Most Admired Company Award to assess corporate reputation. The assessment from Indonesia's Most Admired Company Award is thought to be fairer in representing corporate reputation, because it evaluates all companies in Indonesia using their assessment standards. Corporate reputation is an organisational attribute that indicates how well stakeholders, both internal and external, consider a company to be good [19, 20]. [21] state that corporate reputation is the result of each stakeholder's assessment of a company over time. Reputation is one of the key drivers of sustainable performance. Evaluations are based on stakeholder experiences, which provide information about the company's actions and how they compare with competitors [22]. Good corporate reputation positively impacts various stakeholder groups [22].

Few studies examined return volatility in Indonesia. Previous studies by [23-26] focused on calculating returns in general, whereas the calculation or estimation of volatility is considered superior to the calculation of ordinary stock returns because the calculation of volatility can calculate the risk of a stock [27]. High risk with high returns in the stock market means that shareholders will obtain greater returns if they take greater risks [6]. Speculative investors, who are characterised by high volatility, favour short-term gains. By contrast, less volatile markets allow investors to hold on to stocks for a long period to generate profits, and markets with low levels of volatility also indicate that investors are not at high risk [7]. However, the lack of in-depth literature in this field emphasises the need for additional research. Previous research produced conflicting results regarding the relationship between board gender diversity, earnings quality, and stock return volatility. [13] found a significant positive relationship between board gender diversity and stock return volatility. By contrast, [15] found that board gender diversity has a significant negative effect on stock return volatility. The research conducted by [27, 28] found that earnings quality has a positive effect on stock return volatility. In contrast [29, 31] reported that earnings quality has a negative effect on stock return volatility.

Previous studies on stock return volatility provide varying results. These differing results may have been caused by other factors. According to [32] the dependent and independent variables have a weak or inconsistent relationship, then some moderator variables may affect the relationship. One variables that may mediate the relationship between board gender diversity and earnings quality is corporate reputation because corporate reputation is a determinant in the formation of risk and return expectations. Research by [20, 33] found that corporate reputation reduces corporate risk, because investors are more likely to invest in companies with good reputations. The inconsistent findings of previous studies, as well as the insufficient amount of research on return volatility in the Indonesian context, suggest a lack of attention, prompting this study. This study seeks to broaden existing knowledge by investigating the role of corporate reputation, as represented by corporate image awards, in strengthening the influence of board gender diversity and earnings quality on stock return volatility. Previous research concentrated on calculating returns in general without addressing the volatility value of these returns. Therefore, this study contributes to the literature on the determinants of return volatility by conceptualising the relationship between board gender diversity and earnings quality on stock return volatility, and corporate reputation as a moderating variable.



II. LITERATURE REVIEW

The Signalling theory describes the relationship between companies' provision of information and investor responses, which can affect investment decisions [31]. The market reacts positively if the information contains a positive value, and vice versa. With an increase in the percentage of female employees, gender diversity has become an important element of diversity in all organisations [11]. Companies with better organisational performance appoint at least two female directors [15]. More effective board communication with investors is driven by women's participation on boards, which improves the diffusion and quality of firm-specific information [13].

[12] suggested that the presence of women on boards can help companies report better and increase investor confidence in financial statements. Companies are likely to experience improved market performance and strengthen their competitive advantage due to these gains, which can influence stock return volatility. [34] found that organisations with diverse board members can outperform their competitors financially in terms of gender and ethnic diversity by 25% and 36%, respectively. Companies with higher-than-average diversity scores generated 19% innovation revenue, which is the revenue earned from new products within three years. In addition, these businesses perform better financially, with lower diversity scores and EBIT margins of 9%. Businesses with diverse board members have better decision-making processes and avoid groupthink because the variety of board members' backgrounds can increase the number of perspectives the board has, resulting in better decisions [35]. The benefits of gender diversity in an organisation result in a decrease in the volatility of the company's stock returns, which is associated with the company's low risk because return volatility is one way to measure company risk. Studies by [15] found that greater board gender diversity reduces the volatility of stock performance. This study is in line with research by [11], who found that board gender diversity has a negative effect on stock return volatility.

H1: Board gender diversity has a negative effect on stock return volatility.

Information asymmetry between individuals, organisations, investors, and management in signalling theory results in certain parties providing signals about certain situations to reduce the asymmetry caused by social selection problems in imperfect information situations [36]. Hence, management uses signals to reduce information asymmetry. Corporate earnings disclosures are an example of such disclosures. The market response to earnings information can be demonstrated by the various responses given by earnings published in financial statements; the response is influenced by the quality of the company's earnings [27]. High earnings quality indicates that the company has good financial performance, and earnings can accurately reflect the continuation of future profits because the profits generated are higher than or equal to the planned profits. [30] stated that high earnings quality can reduce stock mispricing by holding back irrational trading by noise traders, consequently making the stock market more efficient and reducing and stabilising stock return volatility. Research by [31] found that earnings quality negatively affects stock returns volatility. These results are consistent with those of [29]. High earnings quality leads to low stock return volatility. This situation occurs because the company is considered able to disclose information about earnings quality, which can reflect good future cash flow, so that investors will assume that the shares can be used for long-term investment; as a result, the issuer's stock volatility tends to be low.

H2: Earning Quality has a negative effect on stock return volatility.

Signalling theory describes the relationship between companies' information provision and investor responses that can influence investment decisions [31]. Corporate reputation can be described as an organisational attribute that shows how well stakeholders, both internal and external, consider a company to be good [20]. [21] state that corporate reputation is the result of each stakeholder's assessment of a company over time. Reputation is a key driver of sustainable performance and its evaluation is based on stakeholder experience, which provides information about a company's actions and how it compares to competitors [22]. A good corporate reputation has a positive impact on various stakeholder groups [22]. Capital market participants may perceive companies with better reputations as more solid companies;



therefore, corporate image can be considered an intangible factor that determines investor loyalty and trust because the volatility of stock returns may also reflect irrational investor sentiment [31], which can be determined by corporate reputation. The existence of corporate reputation further exacerbates the unfavourable impact of board gender diversity and earnings quality on stock return volatility because reputed organisations are deemed more trusted and dependable [9]. [20] stated that investors expect high returns from companies with good reputations. This aligns with the research conducted by [37] who found that corporate reputation reduces volatility because investors tend to maintain shares in the company in the hope of obtaining greater profits in the future because of the company's good reputation. This research is consistent with [20, 33] who found that corporate reputation reduces company risk because investors are more likely to invest in companies with a good reputation. Companies with a good reputation are generally considered safer and more stable.

H3: Corporate reputation strengthens the negative effect of board gender diversity on stock return volatility.

H4: Corporate reputation strengthens the negative effect of earning quality on stock return volatility

III. MATERIAL AND METHOD

This study uses secondary data gathered from various sources, including annual reports, stock price data from Yahoo Finance, the official website of the Corporate Image Index, and other relevant sources. This study analysed a sample of 200 consumer cyclicals enterprises in Indonesia. This study employed panel data from 2018 to 2022.

The authors determined the relationships among board gender diversity, earnings quality, stock return volatility, and corporate reputation following [9, 12, 38, 39]. Stock return volatility is calculated as the dependent variable using the annualised return standard deviation [38]. The authors also compiled independent variables, namely, board gender diversity and earnings quality. To calculate board gender diversity, we use the percentage ratio of the board of women to board size adoption [12]. The second independent variable was earnings quality. We used the ratio of operating cash flows to net income adoption [39]. For the moderation variable, the author adopted [9] a dummy variable of 1 for companies included in Indonesia's Most Admired Company Award rank and 0 for those that were not. The control variables can affect the dependent and independent variables. The control variables are size, debt-to-asset ratio, return on assets, and listing age [40-43]. The natural logarithm of total assets is denoted by size, the ratio of total debt to total assets is characterised by the debt asset ratio, the ratio of net profit after tax to total assets is defined as return on assets, and the difference between the observation and listing years is the listing age. E-views 13 software was used for the regression analysis. This study's panel data analysis technique used the Common Effect, Fixed Effect, and Random Effect methods. To determine the most suitable method, researchers used the Chow, Hausman, and Lagrange Multiplier (LM) tests. An additional analysis was conducted by dividing companies that were included in Indonesia's Most Admired Company rank award into companies that were not. In addition, a robustness test was conducted to test whether the research model is robust if the measurement of the corporate reputation variable used the award assessment score from Indonesia's Most Admired Companies.

Table 1. Variable measurements

No	Variable Measurement	Measurement
1	Stock return volatility	$SRV = \sqrt{\frac{1}{n-1} \sum_{t=1}^{n} (Return - Mean)^2}$



2	Bord Gender Diversity	$BGD = \frac{Board\ of\ Woman}{Board\ Size} \times 100$
3	Earning Quality	$EQ = \frac{Operating\ Cash\ Flow}{Net\ Income}$
4	Corporate Reputation	Dummy variable equal to 1 for companies ranked in Indonesia's Most Admired Company Award, and 0 for those that are not.
5	Size	Size = Ln Total Assets
6	DAR	$DAR = \frac{Total\ Debt}{Total\ Assets}$
7	ROA	$ROA = \frac{Net\ Income}{Total\ Assets}$
8	Listing age	LA = Year of data collection - Year of initial listing

Source: Author Processed

To test this effect on return volatility, we estimated the following equation:

Model 1

SRVi,t =
$$\alpha$$
 + β 1BGDi,t + β 2EQi,t + β 3ROAi,t + β 4SIZEi,t + β 5DARi,t + β 6LAi,t + ϵ (1)

Models 2 and 3 are used to test the moderating effect of corporate reputation proxied by corporate awards.

Model 2

SRVi,
$$t = \alpha + \beta 1$$
BGDi, $t + \beta 2$ EQi, $t + \beta 3$ CRi, $t + \beta 4$ ROAi, $t + \beta 5$ SIZEi, $t + \beta 6$ DARi, $t + \beta 7$ LAi, $t + \varepsilon$ (2)

Model 3

SRVi,
$$t = \alpha + \beta$$
1BGDi, $t + \beta$ 2EQi, $t + \beta$ 3CRi, $t + \beta$ 4CR_BGDi, $t + \beta$ 5CR_EQi, $t + \beta$ 6ROAi, $t + \beta$ 7SIZEi, $t + \beta$ 8DARi, $t + \beta$ 9LAi, $t + \epsilon$ (3)

Model 4 was used to test the robustness of the model using Indonesia's Most Admired Company Award assessment score for corporate reputation.

Model 4

SRVi,t =
$$\alpha$$
 + β 1BGDi,t + β 2EQi,t + β 3CRSKORi,t + β 4CRSKOR_BGDi,t + β 5CRSKOR_EQi,t + β 6ROAi,t + β 7SIZEi,t + β 8DARi,t + β 9LAi,t + ϵ (4)

IV. DATA ANALYSIS

Table 2 provides the descriptive statistics for all the variables, including measures such as means, standard deviations, and minimum and maximum values. The mean return volatility of 0.385542 indicates reasonable return fluctuations. However, the maximum value of return volatility of 1.781600 is likely due to significant events or information, resulting in a maximum value that is higher than that of companies in the same sector. However, the minimum volatility value is 0.037120, reflecting high price stability, with a standard deviation of 0.288051. Board gender diversity shows an average value of 16.42% which indicates a fairly high proportion of women and a balanced commitment to the company's representation of gender. This diversity increased, as indicated by a maximum value of 57.14%, indicating a strong commitment to gender equality. The standard deviation of board gender diversity 13.51009 indicates that gender diversity on the board varies among companies, with some companies having a much higher proportion of women than others. Earnings quality reflects a firm's financial health. The average earnings quality of 0.544835 is good, indicating sound accounting practices and reliable financial reporting. However, some companies



show excellent earnings quality, as evidenced by the maximum earnings quality value of 39.90941, due to efficient operations and effective financial management. Meanwhile, there are also poor-earnings quality values, indicated by a minimum value of -49.40318, suggesting that the company requires special attention. The standard deviation of earnings quality of 6.947177 shows that earnings quality varies between companies, with some companies showing much higher earnings quality than others. For corporate reputation, we use dummy variables of 1 and 0, so the maximum value obtained is 1 and the minimum is 0. Company size shows data with an average value of 28.37267 indicating that the company is well established and has a significant influence on its industry. Some companies reached 31.68185 which is included in the category of large companies with extensive resources and outreach. Furthermore, the minimum company size is 24.56546, which means that the company is developing and has the potential to grow. The debt-toassets ratio shows an average of 0.435528, which means that companies have a fairly good debt total asset ratio with a balance between their own capital and debt capital. Maximum of debt asset ratio is 0,908037 and the minimum is 0,016251. The standard deviation is 0.211237, indicating that the debt-to-assets ratio varies among companies, with some companies having much higher or lower leverage levels. The average ROA is 0.019064, indicating a fairly good figure. Some companies showed much higher profitability, with a maximum ROA value of 0,428333, reflecting highly efficient operations and effective asset management. Conversely, some companies have a minimum ROA value of -0,623694, indicating that the company suffers losses and requires performance improvement. A standard deviation of 0.097942 shows that ROA varies between companies, with some companies having much higher or lower levels of profitability than others. A company's listing age signifies how long it has been in the stock market. An average of 16,82500 shows that the companies in this study were listed on the stock exchange for an average of 16,8 years, indicating a considerable level of maturity and market experience. However, some companies are relatively young, with a listing age of 0,000, indicating that they are just beginning their journey in the stock market when this research was conducted. However, there are also companies that have been listed for a long time, with a listing age of 38 years, indicating that they are well established and have a proven reputation in the market. The standard deviation of 10,18642 suggests that listing age varies between companies, with some companies having longer market experience than others.

Table 2. Descriptive statistics

Variable	Mean	Maximum	Minimum	Std. Dev
SRV	0,385542	1,781600	0,037120	0,288051
BGD	16,42042	57,14286	0,000000	13,51009
EQ	0,544835	39,90941	-49,40318	6,947177
CR	-	1,000000	0,000000	-
SIZE	28,37267	31,68185	24,56546	1,489615
DAR	0,435528	0,908037	0,016251	0,211237
ROA	0,019064	0,428333	-0,623694	0,097942
LA	16,82500	38,00000	0,000000	10,18642

Source: E-views data processing results (2024)

To test for a strong relationship between the dependent variables, a multicollinearity test was conducted to calculate the variance inflation factor (VIF) and tolerance. The results presented in Table 3 indicate no multicollinearity problem between the independent variables. This can be observed from the VIF values which were all less than 10, and the tolerance values (1/VIF) were all greater than 0.1 [44]. In addition, the correlation matrix in Table 4 confirms the absence of multicollinearity, as the correlation values between the variables are less than 0.9 [45].



Table 3. Multicollinearity test results: variance inflation factor

Variable	VIF	1/VIF
BGD	1,453	0,688
EQ	1,058	0,945
CR	2,877	0,347
CR_BGD	2,544	0,393
CR_EQ	1,459	0,685
SIZE	1,193	0,838
DAR	1,240	0,806
ROA	1,296	0,771
LA	1,050	0,952

Source: E-views data processing results (2024)

Table 4. Multicollinearity test results: Pearson correlations

Variable	BGD	EQ	CR	CR_BGD	CR_EQ	SIZE	DAR	ROA	LA
BGD	1,000								
EQ	0,128	1,000							
CR	-0,048	0,054	1,000						
CR_BGD	0,264	0,046	0,701	1,000					
CR_EQ	0,010	0,127	0,540	0,440	1,000				
SIZE	0,054	-0,037	0,191	0,131	0,078	1,000			
DAR	-0,285	0,025	-0,113	-0,059	-0,112	0,105	1,000		
ROA	-0,069	0,054	0,342	0,141	0,181	0,300	-0,158	1,000	
LA	-0,066	-0,021	0,132	0,122	0,097	0,123	0,088	-0,008	1,000

Source: E-views data processing results (2024)

To test the effect of board gender diversity and earnings quality on return volatility with corporate reputation as a moderator, we first conducted a Chow test to determine whether the model is a fixed-effect model (FEM) or common-effect model (CEM). After the FEM model was selected, we conducted a Hausman test to determine whether the model is a FEM or random-effects model (REM). The REM model is selected based on the Hausman test. Therefore, hypothesis testing in all models used the REM model.

Table 5 presents the results of panel data regression analysis. The findings reveal a significantly positive relationship between gender diversity of the board and stock return volatility (B= 0.00535, sig=0.0102<0.05). These findings suggest that gender diversity positively influences return volatility in a beneficial way. With the rising ratio of female employees, gender diversity is an important element of diversity in every firm [11]. This study emphasises that diversity can help the board's decision-making process because it provides new perspectives on various issues presented and combined with the exchange of ideas from board members with different backgrounds and experiences [46, 47]. These results are consistent with research by [13] stating that board gender diversity has a positive effect on stock return volatility. Differences in the risk preferences of female and male directors may affect investment decisions and corporate strategies. Ultimately, this may affect shareholder perception and return volatility [13]. In addition, the presence of female directors, especially independent directors, may reflect changes in progressive and bold corporate strategies [47] which may be riskier for some shareholders, thereby increasing return volatility. Furthermore, [12] suggested that gender-diverse boards may concentrate more on short-term issues such as social and environmental responsibility than on long-term issues such as profits and shareholder value. This could lead to more risk-averse strategies. This may limit a business's growth potential and raise return volatility because of investors' decisions.



The results indicate a negative and significant relationship (B = -0.00455; sig = 0.0941 <0.1) between earnings quality and return volatility. The results of this study are consistent with those of [29-31] suggesting that earnings quality has a negative effect on the volatility of stock returns. Thus, the higher a company's earnings quality, the lower the stock return volatility. This situation occurs because the company is considered capable of disclosing information about earnings quality, which can reflect good future cash flows. Consequently, investors assume that shares can be held for a long time, resulting in minimal volatility of the issuer's shares. These findings are consistent with signalling theory in accounting, which is based on information asymmetry among individuals, organisations, investors, and management, resulting in certain parties acting to provide signals about specific situations to reduce the asymmetry caused by social selection issues in imperfect information situations [36]. This result implies that management provides signals to reduce information asymmetry. An example of such a signal is corporate earnings disclosure. High earnings quality indicates that the company has good financial performance, and earnings can accurately reflect the continuation of future profits because the profits generated are higher than or equal to the expected profits. [30] stated that high earnings quality will be able reduces stock mispricing by restraining irrational trading by noise traders, consequently making the stock market more efficient, allowing it to reduce and stabilise stock return volatility. Additionally, an increase in earnings quality can lead to a decrease in stock volatility because high earnings quality tends to provide more accurate and reliable information about the future performance of the business. This can reduce uncertainty and increase earnings predictability, thereby reducing information risk [29]. Investors have greater confidence in the information provided by a company, and companies with high earnings quality are thought to have solid future cash flows, leading them to assume that the stock has good future prospects and can be used for long-term investment.

The results for the interaction between corporate reputation and gender diversity of the board is insignificant (B= -0.00643; sig=0.1220>0.1) on return volatility. Corporate reputation has been examined as a determinant of risk and return expectations. [20] stated that investors expect high returns from companies with good reputations. However, when board gender diversity was included, the company's reputation was neither strengthened nor weakened. This is because the board's influence on business risk is determined not only by the number or absence of women on the board but also by their qualities, such as the degree of education and educational institutions [48]. Therefore, when a company's reputation is influenced by board gender diversity variables that reveal only gender variations and do not involve other characteristics, the relationship between company reputation and gender diversity variables has no influence on stock return volatility. This result aligns with the research conducted by [12, 20] who reported that board gender diversity and corporate reputation have no effect on return volatility.

The relationship between corporate reputation and earnings quality has a regression coefficient of -0.03705, indicating a significant negative relationship (sig= 0.0971<0.1) with return volatility. This indicates that corporate reputation strengthens the negative effects of earnings quality on return volatility. High earnings quality indicates that a company's financial performance is good, and earnings can accurately reflect the sustainability of future earnings because the earnings generated are higher than or equal to planned earnings. [30] state that high earnings quality can reduce stock mispricing by restraining irrational trading by noise traders, consequently making the stock market more efficient and reducing and stabilising stock return volatility. [31] also found that high earnings quality causes low stock return volatility. It is because the corporation is thought to be able to provide information about earnings quality, which can reflect positive future cash flow. Consequently, investors believe that stocks are suitable for long-term investments. Thus, the issuer's stock volatility is likely minimal. Low stock volatility indicates that the growth or decrease in a company's current stock returns relative to its historical returns is consistent. Corporate reputation is a determinant of risk and return expectations. Investors often believe that companies offer good investment opportunities [49]. Market actors are mostly concerned with their corporate reputation. They concluded that companies with relatively good reputations are able to maintain superior



profits over time [50]. [20] stated that investors expect high returns from companies with a high reputation. This aligns with the research conducted by, [37], who found that a company's corporate reputation is assumed to reduce volatility because investors tend to maintain their share ownership in a company expecting to earn greater profits in the future due to the company's good reputation. These results agree with accounting signalling theory, which shows how information provided by companies to investors correlates with each other and can affect investment decisions [31]. The market can be predicted to react positively if the information contains positive values and negatively if it contains negative values. The results of this study are similar to those of [20, 33] that corporate reputation can reduce corporate risk because investors are more likely to invest in companies with a good reputation, which are usually considered safer and more stable investments.

Table 5. Regression analysis results

Variable	Model 1	Model 2	Model 3
BGD	0,00405 (0,0321)**	0,00421 (0,0257)**	0,00535 (0,0102)**
EQ	-0,00490 (0,0736)*	-0,00475 (0,0836)*	-0,00455 (0,0941)*
CR		0,0002 (0,9969)	0,16163 (0,1150)
CR_BGD			-0,00643 (0,1220)
CR_EQ			-0,03705 (0,0971)*
ROA	0,12196 (0,5891)	0,15409 (0,5119)	0,07975 (0,7299)
SIZE	-0,04389 (0,0257)**	-0,04614 (0,0200)**	-0,04545 (0,0212)**
DAR	0,24686 (0,0620)*	0,34030 (0,0193)**	0,25626 (0,0587)*
LA	-0,00244 (0,3718)	-0,00269 (0,3278)	-0,00217 (0,4278)
Adjust R2	0,0353	0,041242	0,0479
F-value	2,2156	2,2228	2,1135
Sig. F	0,0432	0,03407	0,0302
N	200	200	200

Source: E-views data processing results (2024)

Notes: *, **, and *** represent significance at the 10 %, 5 %, and 1% levels, respectively.

In Table 6, additional analysis is conducted by separating the companies that are included in the rank from those that are not included in the rank. The results show that earnings quality has a significant negative effect (B= -0.036595; sig=0.0400<0.05) on return volatility for highly reputable companies but not for non-reputable companies. This strengthens the primary finding that earnings quality has a negative effect, and corporate reputation strengthens the negative relationship between earnings quality and return volatility. The corporate reputation that can strengthen the negative effect of earning quality on return volatility is a good corporate reputation. Good corporate reputation positively impacts various stakeholder groups [22]. Capital market participants consider them to be more stable companies. Companies with good reputations are more likely to maintain greater profits over time [50]. [37] stated that a firm's reputation is assumed to reduce return volatility, because investors tend to retain shares of reputable companies in the hope of obtaining greater profits in the future. Therefore, one can conclude that companies with high earnings quality and good reputation can reduce return volatility as risk indicators.

Table 6. Regression Analysis Results: Ranked and Unranked Firms

Variable	Ranked Companies	Unranked Companies
BGD	0,003467 (0,2326)	0,002163 (0,3965)
EQ	-0,036595 (0,0400)**	0,002492 (0,1986)
ROA	0,61610 (0,1692)	-0,841660 (0,3212)
SIZE	-0,13863 (0,1166)	-0,000993 (0,0119)**



DAR	0,48695 (0,0101)**	0,006563 (0,1489)
LA	-0,01160 (0,0044)	-0,001943 (0,5762)
Adjust R2	0,3168	0,0437
F-value	3,4741	2,2668
Sig. F	0,011	0,039

Source: E-views data processing results (2024)

Notes: *, **, and *** represent significance at the 10 %, 5 %, and 1% levels, respectively.

Here, we assess the robustness of our results using the corporate reputation scores of Indonesia's Most Admired Company awards for corporate reputation measurement. Our analysis shows that, with a corporate reputation score, the results are similar to those of the primary analysis, indicating that the model is robust. Table 7 shows that board gender diversity has a significant positive effect (B= 0.00498; sig=0.0145<0.05) on return volatility, earnings quality has a significant negative effect (B= -0.00459; sig=0.0931<0.1) on return volatility, corporate reputation score cannot moderate (B= -0.00487; sig=0.1575>0.1) board gender diversity on stock return volatility, and corporate reputation score can strengthen the negative effect (B= -0.03857; sig=0.0924<0.1) of earning quality on stock return volatility. This consistency indicates that earnings quality can reduce return volatility, and corporate reputation can reduce return volatility when it interacts with corporate reputation.

Table 7. Regression Analysis Results: Company Reputation Measured by Score

Variable	Stock Return Volatility (Model 4)
BGD	0,00498 (0,0145)**
EQ	-0,00459 (0,0931)*
CRSKOR	0,11939 (0,1390)
CRSKOR_BGD	-0,00487 (0,1575)
CRSKOR_EQ	-0,03857 (0,0924)*
ROA	0,10097 (0,6636)
SIZE	-0,46492 (0,0250)**
DAR	0,22979 (0,1408)
LA	-0,00176 (0,5188)
Adjust R2	0,0418
F-value	1,9656
Sig. F	0,0453
N	200

Source: E-views data processing results (2024)

Notes: *, **, and *** represent significance at the 10 %, 5 %, and 1% levels, respectively.

V. CONCLUSION

This study investigates how board gender diversity and earnings quality influence stock return volatility, and how company reputation, as measured by Indonesia's Most Admired Company Award, moderates these two variables. Furthermore, we expand the research by distinguishing between organisations that are regarded as Indonesia's most admired and those that are not. For assessment purposes, we collected data on companies in the consumer cyclical sector on the Indonesia Stock Exchange for the period 2018-2022. Our findings verify several hypotheses. These findings indicate that earnings quality has a detrimental effect on stock return volatility, particularly when ranking or recognising companies. However, board gender diversity has a favourable impact on stock return volatility in Indonesia. Furthermore, the additional analyses imply that a company's earnings quality and its inclusion in Indonesia's Most Admired Company can reduce the volatility of returns for consumer cyclicals in Indonesia. In contrast, for companies not included in the



ranking, the primary independent factors have been shown to have no influence on return volatility. The effect of earnings quality on companies with good reputations is mainly because investors tend to retain the shares of reputable companies in the hope of obtaining greater profits in the future, so that companies with high earnings quality and good reputation can reduce return volatility which is a measure of risk. In the additional analysis, the measurement of the company's reputation score showed results similar to the main results. This proves that earnings quality can reduce return volatility and that company reputation can reduce return volatility when it interacts with company reputation. Companies with a good reputation tend to be more financially stable. Financial reports must be clear, accurate, and understandable to investors. Accurate financial reports provide a strong foundation for investors to evaluate a company's performance and forecast its prospects, eliminating investor uncertainty and concern. Organisations with high reputations typically have clear development opportunities. Good reputation reflects public trust in a company's products, services, and management. Trust is an important asset for attracting new customers, establishing strategic partnerships, and expanding market share. These clear growth prospects increase investor optimism and promote stable returns. Our findings have several implications for investors, business executives, and regulators. Investors should use caution when investing in the shares of firms with a poor reputation. Managers of companies, particularly those not featured in the rankings, must enhance their business performance to develop good products and increase the transparency and quality of financial reporting. Consequently, it enhances a company's reputation and boosts investors' trust. In addition, this study has research limitations, such as the computation of the board gender diversity variable, which is only focused on gender, namely, the number of women on the board, and does not include other board characteristics. Future studies should delve further into the features of companies' boards, particularly those of female board members, to present a more comprehensive picture.

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Author Contribution

All authors made an equal contribution to the development and planning of the study.

Conflict Interest

The authors declare that they have no known conflict financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Ethical Statement

No applicable because this article does not contain any studies with human or animal subjects.

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REFERENCES

- 1. Zada, H., Maqsood, H., Ahmed, S., & Khan, M. Z. (2023). Information shocks, market returns and volatility: A comparative analysis of developed equity markets in Asia. SN Business & Economics, 3(1).
- Ding, J. (2024). Role of risk aversion in operational decisions with remanufacturing under emissions price volatility. Computers & Industrial Engineering, 189.
- Vagnani, G., Tian, J., & Dong, Y. (2023). Outward foreign direct greenfield investments and firms predicted long-term stock volatility levels and connectedness: Evidence from China. Financial Research Letters, 58.
- 4. Duong, K. D., Dang, H. G., Tran, T. N. D., & Pham, H. (2024). How do financial constraints and market competition affect innovations: Evidence from Vietnam. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(3).
- 5. Aye, G. C., Balcilar, M., Demirer, R., & Gupta, R. (2018). Firm-level political risk and asymmetric volatility. *Journal of Economic Asymmetries*, 18.
- 6. Ren, X., Cao, Y., Liu, P. J., & Han, D. (2023). Does geopolitical risk affect firms' idiosyncratic volatility? Evidence from China. *International Review of Financial Analysis*, 90.
- Kita, A., & Tortorice, D. L. (2021). Same firm, two volatilities: How variance risk is priced in credit and equity markets. *Journal of Corporate Finance*, 69.
- 8. Dai, Z., Zhou, H., Wen, F., & He, S. (2020). Efficient predictability of stock return volatility: The role of stock market implied volatility. *North American Journal of Economics and Finance*, 52.
- 9. Bravo, F. (2016). Forward-looking disclosure and corporate reputation as mechanisms to reduce stock return volatility. *Revista de Contabilidad-Spanish Accounting Review*, 19(1), 122–131.
- 10. Ikizlerli, D. (2022). The relation between trading volume and return volatility: Evidence from Borsa Istanbul. *Business and Economics Research Journal*.
- 11. Abou-El-Sood, H. (2021). Board gender diversity, power, and bank risk taking. International Review of Financial Analysis, 75.
- Sila, V., Gonzalez, A., & Hagendorff, J. (2016). Women on board: Does boardroom gender diversity affect firm risk? *Journal of Corporate Finance*, 36, 26–53.
- 13. Poletti-Hughes, J., & Briano-Turrent, G. C. (2019). Gender diversity on the board of directors and corporate risk: A behavioural agency theory perspective. *International Review of Financial Analysis*, 62, 80–90.
- 14. Cardoso, G., Carr, D. D., & Rogers, P. (2019). Does corporate governance matter for stock returns volatility in the Brazilian context? *Corporate Governance (Bingley)*, 19(6), 1236–1252.
- 15. Nadeem, M., Suleman, T., & Ahmed, A. (2019). Women on boards, firm risk and the profitability nexus: Does gender diversity moderate the risk and return relationship? *International Review of Economics and Finance*, 64, 427–442.
- 16. Sindhu, M. I., Windijarto, W. K., Wong, L., & Maswadi, L. (2024). Implications of corporate social responsibility on the financial and non-financial performance of the banking sector: A moderated and mediated mechanism. *Heliyon*, 10(9).
- 17. Tarjo, T., et al. (2022). Corporate social responsibility, financial fraud, and firm's value in Indonesia and Malaysia. Heliyon, 8(12).
- 18. Cao, V. Q. (2023). How does corporate social responsibility affect innovative work behaviour? *Global Business and Finance Review*, 28(4), 34–50.
- 19. Gotsi, M., & Wilson, A. M. (2001). Corporate reputation: Seeking a definition.
- 20. Febra, L., Costa, M., & Pereira, F. (2023). Reputation, return and risk: A new approach. European Research on Management and Business Economics, 29(1).
- 21. Arora, N., Saggar, R., & Singh, B. (2021). Nexus between risk disclosure and corporate reputation: A longitudinal approach. *Journal of Strategy and Management*, 14(4), 529–544.
- 22. Tischer, S., & Hildebrandt, L. (2014). Linking corporate reputation and shareholder value using the publication of reputation rankings. *Journal of Business Research*, 67(5), 1007–1017.
- 23. Behera, C., Rath, B. N., & Mishra, P. K. (2024). The impact of monetary and fiscal stimulus on stock returns during the COVID-19 pandemic. *Journal of Asian Economics*, 90.
- 24. Madyan, M., Sasikirono, Sumiati, & Meidiaswati, H. (2020). The impact of public ownership and share warrants on market performance of IPOs: Evidence from the Indonesian Stock Exchange (IDX). *Asia Pacific Management Review*, 25(4), 226–234.
- 25. Rudiawarni, F. A., Sulistiawan, D., & Sergi, B. S. (2024). The role of the net purchase of stocks by foreign investors in boosting stock returns: Evidence from the Indonesian stock market. *Economic Modelling*, 135.
- Sharma, S. S., Thuraisamy, K., Madyan, M., & Laila, N. (2019). Evidence of price discovery on the Indonesian stock exchange. *Economic Modelling*, 83, 2–7.
- 27. Tsafack, G., Becker, Y., & Han, K. (2023). Earnings announcement premium and return volatility: Is it consistent with risk-return trade-off? *Pacific Basin Finance Journal*, 79.
- 28. Aboody, D., Hughes, J., & Liu, J. (2005). Earnings quality, insider trading, and cost of capital.
- 29. Fonou-Dombeu, N. C., Mbonigaba, J., Olarewaju, O. M., & Nomlala, B. C. (2022). Earnings quality measures and stock return volatility in South Africa. Future Business Journal, 8(1).
- 30. Mitra, R. K. (2016). The association between earnings quality and firm-specific return volatility: Evidence from Japan. *Review of Accounting and Finance*, 15(3), 294–316.



- 31. Rajgopal, S., & Venkatachalam, M. (2011). Financial reporting quality and idiosyncratic return volatility. *Journal of Accounting and Economics*, 51(1–2), 1–20.
- 32. Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Psychological Association, Inc.*
- 33. Brahmana, R. K., You, H. W., & Lau, E. (2022). Does reputation matter for firm risk in developing countries? *International Journal of Finance and Economics*, 27(2), 2110–2123.
- 34. Diversity Wins. (2020). Diversity wins: How inclusion matters. Retrieved from https://www.nytimes.com/2020/03/31/us/equal-pay-coronavirus-economic-impact.html
- 35. Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, 97(2), 207–221.
- 36. Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment.
- 37. Fernández-Gámez, M. A., Gil-Corral, A. M., & Galán-Valdivieso, F. (2016). Corporate reputation and market value: Evidence with generalized regression neural networks. *Expert Systems with Applications*, 46, 69–76.
- 38. Naufa, A. M., Lantara, I. W. N., & Lau, W. Y. (2019). The impact of foreign ownership on return volatility, volume, and stock risks: Evidence from ASEAN countries. *Economic Analysis and Policy*, 64, 221–235.
- 39. Penman, S. H., & Zhang, X.-J. (1999). Accounting conservatism, the quality of earnings, and stock returns.
- 40. Vo, X. V. (2015). Foreign ownership and stock return volatility: Evidence from Vietnam. *Journal of Multinational Financial Management*, 30, 101–109.
- 41. Cosset, J. C., Somé, H. Y., & Valéry, P. (2016). Credible reforms and stock return volatility: Evidence from privatization. *Journal of Banking & Finance*, 72, 99–120.
- 42. Nejad, A. E., & Hoseinzade, S. (2021). Idiosyncratic return volatility and the role of firm fundamentals: A cross-country analysis. *Global Finance Journal*, 50.
- 43. Habibi, H., & Mohammadi, H. (2022). Return and volatility spillovers across the Western and MENA countries. *North American Journal of Economics and Finance*, 60.
- 44. Bager, A., Roman, M., Algelidh, M., & Mohammed, B. (2017). Addressing multicollinearity in regression models: A ridge regression application. Retrieved from https://mpra.ub.uni-muenchen.de/81390/
- 45. Bouaziz, D., Salhi, B., & Jarboui, A. (2020). CEO characteristics and earnings management: Empirical evidence from France. *Journal of Financial Reporting and Accounting*, 18(1), 77–110.
- 46. Alharbi, R., Elnahass, M., & McLaren, J. (2022). Women directors and market valuation: What are the 'Wonder Woman' attributes in banking? *Journal of International Financial Markets, Institutions and Money, 80*.
- 47. Elnahass, M., Alharbi, R., Mohamed, T. S., & McLaren, J. (2024). Women directors' attributes and demographics: New insights into bank risk. *Research in International Business and Finance*, 71.
- 48. Al-Dubai, S. A. A. (2023). Do level, field, and place of board members' education impact financial risk disclosure? A Saudi empirical evidence. *Heliyon*, 9(12).
- 49. Shefrin, H., & Belotti, M. L. (2001). Do investors expect higher returns from safer stocks than from riskier stocks? Editorial commentary for *Journal of Psychology and Financial Markets*.
- 50. Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal*.