



## Impact of Board Diversity and Institutional Ownership on Performance and Risk of LQ45 Firms

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### Abstract

This study examines the influence of board diversity (gender, nationality, and age) and institutional ownership on company performance and risk among companies listed on the LQ45 index from 2020 to 2023. This study employs a quantitative approach, utilising secondary data collected from company annual reports. The sample comprises 25 companies and 100 observations spanning 4 years. The analysis was conducted using multiple linear regression in StataMP 17 to determine the influence of independent variables on company performance, measured by Return on Assets (ROA), and on company risk, calculated using the Debt-to-Equity Ratio (DER). The results indicate that board diversity has a significant positive effect on ROA, while gender and age diversity do not show a substantial impact on company performance. On the other hand, institutional ownership has a significant adverse effect on ROA, indicating that higher institutional ownership tends to reduce a company's performance. All independent variables also had no significant impact on company risk (DER). These findings suggest that, although board diversity and institutional ownership can theoretically enhance oversight and decision-making, their practical implications remain limited due to the low proportion of female, foreign, and young directors, as well as the lack of active institutional involvement. This study contributes to the corporate governance literature in the Indonesian capital market and suggests that future research should include mediation or moderation variables to gain a more comprehensive understanding.

JEL Classification: G30, M14, G32

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## Introduction

COVID-19 disrupted Indonesia's economic growth, impacting stability. The government, companies, banks, and regulators are working together to address financial fallout (Rababah et al., 2020). Economic growth fell from 5.02% in 2019 to 2.97% in 2020 (Direktorat Jenderal Kekayaan Negara, 2020).

As a consequence, the pandemic affected both macroeconomic indicators and company performance, increasing business risks by driving down profits and rising debt levels. This is evident in the LQ45 index, which during 2020-2023, reflects fluctuations in Return on Assets (ROA), a profitability measure, and Debt to Equity Ratio (DER), a risk indicator. ROA reached its lowest in 2020 (0.06), peaked in 2022 (0.10), and declined slightly in 2023, while DER fluctuated between 2.2 and 2.6, signaling unstable capital structures. These dynamics illustrate the uncertainty and challenges Indonesian firms face in sustaining profitability and managing risk during this period.

Company performance and risk are strongly linked to governance practices. Financial ratios from annual reports give managers and investors useful insights (Kinasih & Nofirda, 2022). Board structure and ownership shape how decisions are made. However, research is divided on whether board diversity and institutional ownership improve performance and reduce risk (Innayah et al., 2021; Saragih et al., 2020).

Corporate governance has received increasing global attention, particularly regarding the structure of the board of directors and corporate ownership—two elements believed to influence corporate performance and risk. However, research findings indicate inconsistencies in this relationship, underscoring the need for further in-depth investigation.

Among governance mechanisms, gender diversity is widely discussed. The inclusion of women on boards is the main goal (Liem, 2023). Several countries require a certain proportion of female board members (Wisudanto & Fikri, 2023). In Indonesia, 43% of women hold senior management positions. This is the second-highest figure in the world, demonstrating the government's support for female candidates in top positions (Raharjanti, 2019). However, research on gender diversity and performance risk continues to yield inconsistent findings. Studies by Arenas-Torres et al. (2021); Harijanto and Widiatmoko (2023); and Innayah et al. (2021) found that gender diversity significantly influences firm performance. Still, Artha et al. (2021); Raharjanti (2019); and Wirawan and Willim (2024) found no effect. Gender diversity can enhance risk-taking, as shown by Krismelina and Kristanti (2023); Innayah et al. (2021); and Setiawan and Khoirotunnisa (2020), who found that gender diversity on boards of directors influences risk. In contrast, Pertiwi et al. (2021) argued the opposite.

Beyond gender, diversity in nationality also represents a critical dimension of board composition. Lubis et al. (2022) argue that adding foreign directors to the board can enhance the quality of its decision-making, as foreign members bring diverse ideas and perspectives, including language, life experiences, culture, behavior, and regional laws, thereby improving the decision-making process. Previous research has shown mixed results. Arenas-Torres et al. (2021); EmadEldeen et al. (2021); Putri and Danarsari (2020) found that performance is affected by nationality diversity, whereas Innayah et al. (2021) found that it has no effect. The Resource Dependence Theory explains that organizations depend on their external environment to obtain vital resources. In this context, foreign directors become influential because they provide access to international networks, global knowledge, and external credibility, all of which are essential to the company's survival and success. This Theory aligns with Sari (2019), which suggests an influence on risk, whereas Innayah et al. (2021) and Pertiwi et al. (2021) did not find any influence between citizenship diversity and risk.

In addition to gender and nationality, age diversity also affects decision-making and risk-taking. Having board members from different age groups creates diverse perspectives on market changes and trends. Younger

members often understand innovation and new technology better (Winantisan et al., 2024). They tend to use riskier strategies, which can lead to faster growth compared to older managers, who are often more risk-averse (Liem, 2023). Lindhiasiari and Muazaroh (2024) and Winantisan et al. (2024) found that age diversity influences performance, whereas Audio and Serly (2022) found the opposite. Age diversity also shapes risk management. Aisyah et al. (2023) and Pertiwi et al. (2021) found a negative impact on risk. On the other hand, Arioglu (2021) found a positive relationship between risk and board age.

Apart from board diversity, ownership structure, particularly institutional ownership, plays a vital role in shaping governance outcomes. Share ownership by institutional investors, including insurance companies, banks, and investment companies, will encourage better supervision of management performance, as such ownership provides power that can be used to support or oppose management (Wirastomo & Ali, 2021). Various researchers have conducted studies on the relationships among institutional ownership, performance, and risk, yielding varying results. Regarding company performance, Pandensolang and Utomo (2024); Solikhah and Suryandani (2022); and Holly and Lukman (2021) found an influence, but Siska et al. (2022); Ningsih and Wuryani (2021); and Raharjanti (2019) reported no influence. Similarly, regarding corporate risk, Kartikasari et al. (2022); D. Halim and Suhartono (2021); Wirastomo and Ali (2021) demonstrated the influence of institutional ownership. In contrast, Aminah and Wuryani (2021); Saragih et al. (2020) did not find such a relationship.

Most board diversity research, like Artha et al. (2021); Innayah et al. (2021); and Wisudanto and Fikri (2023), focuses on gender and nationality in banking. Studies of institutional ownership and age diversity are rare, even though both matter for performance and risk. This gap drives this research to explore new questions beyond banking.

This study's novelty lies in its broader scope, examining companies on the LQ45 index—spanning various industrial sectors—and simultaneously assessing board diversity by gender, nationality, and age, alongside institutional ownership, during the COVID-19 pandemic and recovery. This offers insights rarely explored in previous research.

Therefore, this study aims to examine the impact of board diversity and institutional ownership. This study tests how board diversity and institutional ownership affect firm performance (ROA) and risk (DER) in LQ45 companies for 2020–2023. These findings will help regulators (IDX, OJK), firms, and investors improve governance, oversight, and risk management.

## Literature Review

### Agency Theory

This study adopts the classical Agency Theory of Jensen and Meckling (1976), which emphasizes conflicts of interest between shareholders and managers and highlights the role of monitoring in reducing agency costs. This Theory also defines the relationship between investor protection and risk reduction for companies through the monitoring and control of self-interested behaviour (El Nahass et al., 2023). Agency conflict often arises when managers act in their own interests, neglecting owners' interests, due to the separation between owners and management (Raharjanti, 2019).

Board diversity is crucial in enhancing management oversight, and several studies indicate that diversity can strengthen monitoring, thereby reducing opportunistic behaviour (Brahma et al., 2021). Additionally, significant institutional ownership can reduce agency costs by enabling it to influence management decisions (Deniza et al., 2023). Thus, agency theory not only explains the relationship between owners and managers but also highlights the importance of board diversity and the role of institutional ownership in minimizing conflicts of interest and enhancing corporate value (Artha et al., 2021).

### **Resource Dependency Theory**

The resource dependency Theory proposed by Pfeffer and Salancik (1978) provides a theoretical basis for board diversity. According to the Resource Dependency Theory (RDT), businesses must acquire or trade resources to survive, and they are heavily reliant on their external environment. The caliber of the board's resources can enhance manager oversight and business performance. Building an RDT and proving that director diversity can give valuable and varied resources for the business (Innayah et al., 2021). In addition, diversity can enhance the board's input to management by bringing unique perspectives and insights from directors. Diversity can improve the information the board provides to managers by leveraging unique insights from diverse directors. Resource dependency Theory explains how boards can facilitate access to valuable resources (Artha et al., 2021).

### **The Influence of Gender Diversity in the Board of Directors on Company Performance**

With the evolution of time and feminist issues, gender diversity means that women and men have equal rights and obligations to occupy top management positions (Raharjanti, 2019). Although there are differences in decision-making styles, where men tend to be more decisive while women are more detailed and analytical, the presence of female directors brings a richer and deeper perspective to analysis and problem-solving (Liem, 2023; Lindhiasiari & Muazaroh, 2024). The presence of women on the board is also often seen as a positive signal for corporate governance and performance (Arenas-Torres et al., 2021; Innayah et al., 2021). According to Resource Dependence Theory, board diversity provides firms with broader perspectives, knowledge, and resources that can enhance the effectiveness of strategic decisions. Therefore, gender diversity is expected to contribute positively to firm performance.

**H1:** *Gender diversity on the board of directors has a positive effect on company performance*

### **The Influence of Director Nationality Diversity on Company Performance**

In today's global business environment, board diversity is a significant strategic asset for companies. Foreign directors connect businesses with other markets, offer fresh investment ideas, and introduce advanced management techniques from diverse backgrounds (Elnahass et al., 2023). They also foster collaboration between technological and administrative skills, encouraging innovation within companies (Innayah et al., 2021). Research by EmadEldeen et al. (2021) supports the view that increasing the number of foreign directors can improve company performance. According to Resource Dependence Theory, nationality diversity enriches organizational resources by providing broader insights, knowledge, and networks that enhance decision-making and performance.

**H2:** *The diversity of directors' nationalities has a positive effect on the company*

### **The Influence of Age Diversity in the Board of Directors on Company Performance**

Age diversity in the board of directors reflects the age distribution of board members and can create a dynamic environment that benefits from a range of expertise (Lindhiasiari & Muazaroh, 2024). Directors from different age groups bring diverse perspectives on market changes, industry trends, and technological developments. Younger board members offer deep insights into innovation and current trends Putri and Danarsari (2020); Winantisan et al. (2024), while senior members contribute experience, wisdom, and strong networks (Lubis et al., 2022). According to Resource Dependence Theory, this diversity of experiences and knowledge strengthens decision-making and overall firm performance. Therefore, the synergy between younger directors' innovation and senior directors' experience is expected to support the hypothesis that board age diversity positively impacts company performance.

**H3:** *Board age diversity has a positive effect on company performance*

### **The Influence of Institutional Ownership of Directors on Company Performance**

Institutional ownership, which involves entities such as governments, financial institutions, and trust funds as shareholders, has a significant ability to monitor managerial performance (Holly & Lukman, 2021). However, other studies indicate that institutional ownership could be detrimental to a company's performance. D. Halim and Suhartono (2021) argue that this occurs due to potential conflicts of interest and

strategic misalignment between institutional investors and management. This situation can force companies to prioritise the interests of institutional shareholders who are in the majority, even if it means ignoring the interests of other shareholders, including both majority and minority shareholders. From the perspective of Agency Theory, institutional ownership is expected to align the interests of managers and shareholders through effective monitoring. However, when institutional investors pursue their own objectives, this monitoring function can become ineffective or even counterproductive, leading to negative impacts on company performance. Furthermore, institutional ownership has a significant negative effect on financial performance as measured by ROA, meaning that a high proportion of shares held by institutions leads them to act in their own interests at the expense of minority shareholders. This creates an imbalance in determining the company's strategic direction, resulting in an uncondusive environment that ultimately fails to enhance financial performance (Nasriani, 2021).

**H4:** *Institutional ownership has a negative effect on company performance*

#### **The Influence of Gender Diversity in the Board of Directors on Company Risk**

The presence of women on boards of directors can significantly facilitate better, lower-risk decision-making due to their more meticulous, cautious, and risk-averse nature compared to men (Lubis et al., 2022). Women on the board of directors can also improve management's monitoring of business operations. As explained by resource dependency theory, gender diversity on the board increases access to unique information and skills, thereby strengthening decision-making quality (Wisudanto & Fikri, 2023). This increased monitoring is directly correlated with better risk management, such that the greater the number of female directors, the lower the company's risk (Krismelina & Kristanti, 2023).

**H5:** *Gender diversity in the board of directors has a negative effect on corporate risk*

#### **The Influence of Director Nationality Diversity on Corporate Risk**

Given the risk-averse nature of foreign investors, researchers are interested in examining whether diversity in board member nationalities, as measured by the presence of foreign directors, can reduce risk. This diversity is closely related to the cognitive and informational wealth that board members bring to the table (Innayah et al., 2021). Foreign directors, as revealed by Innayah et al. (2021), bring new knowledge, unique expertise, objectivity, and improvements in organisational structure and efficiency. This suggests that companies strategically hire foreign directors to leverage the valuable information and knowledge they possess (Sari, 2019). According to Resource Dependence Theory, national diversity enriches boards with cross-cultural perspectives and global networks, thereby enhancing their ability to anticipate uncertainties and reduce corporate risk.

**H6:** *Director nationality diversity has a negative effect on corporate risk*

#### **The Influence of Age Diversity in the Board of Directors on Company Risk**

Age can be used as a measure of a person's experience with risk-taking in a company. Age is a potential risk factor because board members of different ages have different experiences and skills. Younger boards can learn new behaviours and ideas, while older directors are more likely to focus on the company's state and their career security (Aisyah et al., 2023). Currently, many young people are growing up with computers and the internet. Unlike the older generation, they possess a wealth of fieldwork experience and have access to a wide range of information, both online and offline (Pertwi, 2021). Resource Dependence Theory suggests that a mix of younger and older directors provides complementary perspectives, enabling firms to better identify, evaluate, and manage risks. Therefore, age diversity in the boardroom may affect corporate decision-making risk, as directors of different ages may have varying attitudes toward risk (Arioglu, 2021).

**H7:** *Age diversity has a negative effect on corporate risk*

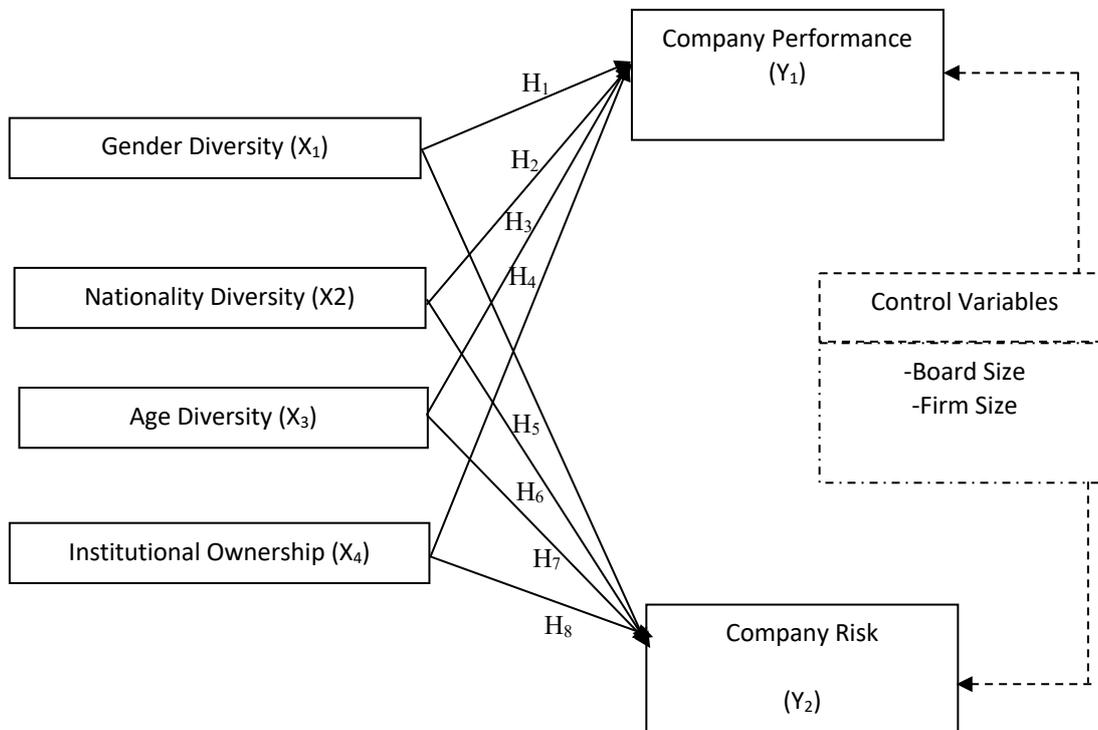
#### **The Influence of Institutional Ownership of Directors on Company Risk**

Institutional ownership is a control mechanism used by management to maintain shareholders' welfare. This is because institutional shareholders have the right to vote to discipline management (K. I. Halim & Novianty, 2023). Companies with large institutional ownership tend to grow and make better investment decisions

that are both profitable and risky (Alysa et al., 2023). Because it suppresses opportunistic behavior that is not aligned with the company's goals, institutional share ownership is essential for effective management oversight. In line with Agency Theory, institutional investors generally act as effective monitors of management, ensuring prudent decision-making and reducing the likelihood of excessive risk-taking. This makes it easier to oversee the company's decision-making process (Wildan & Fitria, 2022).

**H8:** *Institutional ownership has a positive effect on corporate risk*

### Research Model



**Figure 1.** Research Model

### Method

This research employed a quantitative approach utilizing secondary data from company annual reports. Data were obtained by accessing the company's annual reports on the official website [www.idx.co.id](http://www.idx.co.id). The population in this study includes all companies listed on the LQ45 index from 2020 to 2023. Using purposive sampling, the study selected 25 companies that were consistently included in the index over the four-year period, yielding 100 firm-year observations.

The independent variables are board diversity—measured by gender, nationality, and age—and institutional ownership, defined as the proportion of shares held by institutions. Board diversity may enhance monitoring, broaden perspectives, and improve decisions, while institutional ownership is expected to help align managers' and shareholders' interests through monitoring.

The dependent variables are Return on Assets (ROA), defined as net income divided by total assets, and Debt-to-Equity Ratio (DER), defined as total liabilities divided by shareholders' equity. ROA measures firm performance; DER, firm risk. Using both indicators provides a comprehensive view, since high profitability does not always mean low risk. Firms with strong returns may still operate with significant leverage. Thus, analyzing both ROA and DER captures the dual dimensions of performance and risk in LQ45 companies. These variables are measured as follows:

**Tabel 1.** Pengukuran Variabel

Variable	Measurement of Variables	Source
Company Performance (Y1)	$DER = \frac{\text{Profit before tax}}{\text{Total assets}}$	(Innayah et al., 2021)
Company Risk (Y2)	$DER = \frac{\text{Total liabilities}}{\text{Total equity}}$	(Fisabilillah et al., 2020)
Gender Diversity (X1)	$WD = \frac{\text{Number of female directors}}{\text{Total board members}}$	(Innayah et al., 2021)
Nationality Diversity (X2)	$FD = \frac{\text{Number of foreign directors}}{\text{Total board members}}$	(Innayah et al., 2021)
Age Diversity (X3)	$AD = \frac{\text{Number of directors under age 50}}{\text{Total board members}}$	(Andrian & Setiawan, 2022)
Institutional Ownership (X4)	$OI = \frac{\text{Number of institutional shares}}{\text{Total outstanding shares}}$	(Siska et al., 2022)
Board Size	Total number of board members	(Innayah et al., 2021)
Company Size	Company size = Ln x Total assets	(Innayah et al., 2021)

This study employs multiple linear regression analysis. We use institutional ownership, director gender diversity, director nationality diversity, and director age diversity as independent variables to investigate the association between risk and corporate performance. After collecting the data, we process it in StataMP 17. In the Stata testing stage, we include descriptive statistics and preliminary tests: the Chow test, Breusch-Pagan Lagrange multiplier test, Hausman test, classical assumption tests, and hypothesis testing. To address potential heteroskedasticity and autocorrelation, we apply robust standard errors, specifically cluster-robust and Driscoll-Kraay corrections, to ensure the reliability of the estimates.

Building on the analyses described above, this study presents two regression equations.

Model 1.

$$ROA = \alpha + \beta_1.WDX1 + \beta_2.FDX2 + \beta_3.ADX3 + \beta_4.OIX4 + \beta_5.BS + \beta_6.FS + \epsilon$$

Model 2.

$$DER = \alpha + \beta_1.WDX1 + \beta_2.FDX2 + \beta_3.ADX3 + \beta_4.OIX4 + \beta_5.BS + \beta_6.FS + \epsilon$$

Where:

ROA= Company Performance

DER= Company Risk

WD = Proportion of female directors

FD = Proportion of foreign directors

AD = Proportion of age directors

IO = Institutional ownership

BS = Control variable of board size

FS = Control variable of company size

$\alpha$  = Alpha value

$\epsilon$  = Error value

## Result and Discussion

Descriptive statistical tests provide an overview of the research objects, including minimum, maximum, mean, and standard deviation. The results of descriptive statistical analysis for the variables in this study are presented in Table 3:

**Table 2.** Descriptive Statistical Results

Variable	Minimum	Maximum	Average	Std. Deviation
ROA	-0.0280445	0.4542669	0.0824445	0.0844627
DER	0.0544836	16.07858	2.380716	3.136323
WD	0	0.6	0.1238571	0.1263458
FD	0	0.4444444	0.0911717	0.1335884
AD	0	0.8333333	0.2793067	0.2058611
IO	0.4391122	0.9451796	0.6218925	0.1204728
BS	4	17	8.25	2.9349
FS	30.42479	35.31545	32.40826	1.375647
Observation:	100			

Source: Output StataMP 17, 2025

Table 2 shows that the Company Performance (ROA) variable has an average of 0.0824445, indicating that most companies in the sample performed relatively well, despite some experiencing losses. The Company Risk variable (DER) has an average of 2.380716, indicating that most companies in the sample use relatively high debt financing compared to their equity. The Gender Diversity (WD) variable has an average of 0.1238571, indicating that most companies do not yet have significant female representation in leadership. The Nationality Diversity (FD) variable has an average of 0.0911717, reflecting the low involvement of foreign directors in these companies. The Age Diversity (AD) variable has an average of 0.2793067, indicating that most directors are still predominantly over 50 years old. However, there are companies with a majority of young directors. Institutional Ownership (IO) averages 0.6218925, indicating that most of the company's shares are held by institutions, which can influence the company's direction and managerial decisions.

**Table 3.** Preliminary Test for Model Selection

Test	Model 1	Model 2	Decision Rule	Selected Model
Chow Test (OLS vs FE)	Prob > F = 0.0000	Prob > F = 0.0000	p < 0.05 use FE	FE
Breusch–Pagan LM Test (OLS vs RE)	Prob > Chibar2 = 0.0000	Prob > Chibar2 = 0.0000	p < 0.05 use RE	RE
Hausman Test (FE vs RE)	Prob > Chi2 = 0.0000	Prob > Chi2 = 0.1638	p < 0.05 use FE; p > 0.05 use RE	FE (Model 1) RE (Model 2)

Source: Output StataMP 17, 2025

Note: OLS (Ordinary Least Squares); FE (Fixed Effects); RE (Random Effects)

Table 3 summarizes the model specification tests for both research models. For Model 1, the Hausman test indicates that FE is the most appropriate model. For Model 2, the Hausman test is not significant, suggesting that RE is more suitable. Accordingly, the regression analysis was conducted using FE for Model 1 and RE for Model 2.

**Table 4.** Results of Heteroscedasticity and Autocorrelation

Model 1		Model 2	
Total sample	100	Total sample	100
Heteroscedasticity		Heteroscedasticity	
Chi2	196.39	Chi2	254.06
Prob > Chi2	0.0000	Prob > Chi2	0.0000
Autocorrelation		Autocorrelation	
F	69.355	F	6.883
Prob > F	0.0000	Prob > F	0.0149

Source: Output StataMP 17, 2025

Based on the analysis results, heteroscedasticity—meaning that error variability differs across observations—was found in Models 1 and 2. This is evident from the p-values of both models. Each model has a p-value of 0.0000, well below the 0.05 significance level. Autocorrelation was also identified. Autocorrelation means that the residuals, or the differences between observed and predicted values, from one observation are not independent of those from others. This suggests reliability differences may arise from background changes not captured by the model. In Model 1, the test showed autocorrelation (F probability value [p] = 0.0000), which is less than the alpha level of 0.05. A similar situation occurred in Model 2, with an F-probability value ( $p > F$ ) of 0.0149, also below the alpha level. The hypothesis testing results use fixed-effects regression with cluster-robust standard errors (which adjust for clustering) or Driscoll-Kraay standard errors (which further address heteroscedasticity and autocorrelation) to control for these issues.

**Table 5.** Research Hypothesis Test

Hypothesis		Path Coefficients	t-value	Sig.	Results
WD → ROA	H1	-0.088375	-1.09	0.287	Unsupport
FD → ROA	H2	0.1649613	1.78	0.088*	Support
AD → ROA	H3	0.0380695	0.94	0.354	Unsupport
IO → ROA	H4	-0.1862744	-3.17	0.004**	Support
WD → DER	H5	0.5269109	0.82	0.414	Unsupport
FD → DER	H6	0.0750879	0.05	0.961	Unsupport
AD → DER	H7	0.8684343	0.92	0.358	Unsupport
IO → DER	H8	-0.4374709	-0.93	0.355	Unsupport

Source: Output StataMP 17, 2025

Note: \*\* significance 5%; \* significance 10%

The analysis of board diversity, institutional ownership, and company performance, measured by Return on Assets, revealed several key insights. Female directors were not significantly affected by ROA (t-value = -1.09, p = 0.287). Similarly, age diversity, with a t-value of 0.94 and a p-value of 0.354, did not significantly affect ROA. In contrast, citizenship diversity displayed a significant positive effect on ROA, with a calculated t-value of 1.78, exceeding the t-table value of 1.711 and the significance level of 0.088, indicating significance at the 10% level. Institutional ownership, however, had a significant negative impact on ROA, as its t-value of -3.17 exceeded the t-table value of 2.064, and its significance level was low at 0.004.

The analysis of various diversity factors, institutional ownership, and company risk, measured by Debt-to-Equity Ratio (DER), indicates several non-significant relationships. Female directors, with a calculated t-value of 0.82 and a significance level of 0.414, do not significantly affect DER, as this t-value is smaller than the t-table value of 2.064, and the significance level is above 0.05. Similarly, citizenship diversity, represented by foreign directors, shows no significant effect on DER, as evidenced by a t-value of 0.05 and a high p-value of 0.961. Age diversity, specifically concerning young directors, likewise does not have a significant impact on DER, with a t-value of 0.92 and a significance level of 0.358, both falling below the threshold for statistical significance. Institutional ownership also shows no significant effect on DER, as its t-value of -0.93 is less than the absolute t-value of 2.064, and its significance level is 0.355.

**Table 6.** Regression Results for Control Variables

Variabel	Path Coefficients	t-value	Sig.
Board Size → ROA	-0.0002902	-0.10	0.922
Company Size → ROA	0.1962824	3.22	0.004
Board Size → DER	-0.0079887	-0.14	0.892
Company Size → DER	0.402235	1.83	0.067

The analysis of control variables reveals that company size positively and significantly affects financial performance (coefficient 0.1962824, p=0.004), indicating that larger firms tend to be more profitable as

measured by ROA. However, company size does not significantly affect corporate risk (coefficient = 0.402235,  $p = 0.067$ ). Board size has no significant impact on profitability or risk, with coefficients of -0.0002902 ( $p=0.922$ ) for ROA and 0.0798787 ( $p=0.892$ ) for DER.

## Discussion

### The influence of Gender Diversity on Company Performance

This study finds no significant relationship between gender diversity and company performance, contradicting several prior studies e.g., [Innayah et al. \(2021\)](#) that show a positive effect. In contrast, the findings agree with [Artha et al. \(2021\)](#); [Raharjanti \(2019\)](#); and [Lindhiasari and Muazaroh \(2024\)](#), who also reported little or no impact. Thus, hypothesis one (H1) is not supported, indicating that the board's effectiveness, regardless of gender composition, matters for firm success.

Resource Dependence Theory holds that a company's survival and performance depend on its ability to obtain key resources from its environment. More board diversity should increase interaction and exchange of ideas, strengthening the company's understanding of its environment ([EmadEldeen et al., 2021](#)). However, the lack of a significant influence from female directors suggests their resources may not fit the company's needs, may be underused, or that their roles are mainly symbolic ([Artha et al., 2021](#)).

### The Influence of National Diversity on Company Performance

This study demonstrates that national diversity on boards has a positive effect on company performance, opposite to [Lubis et al. \(2022\)](#) but in agreement with ([EmadEldeen et al., 2021](#); [Arenas-Torres et al., 2021](#)). Thus, hypothesis two (H2) is supported, as foreign directors contribute beneficially to firm performance, especially in international contexts.

From Resource Dependence Theory, national diversity is a strategic resource. Foreign directors bring networks, knowledge, and global insights, strengthening a company's position in international markets. Companies that use this diversity well benefit from the global perspective of foreign directors. Agency theory suggests foreign directors can improve independent oversight and decision-making, reducing conflicts of interest between management and shareholders. National diversity adds value by offering broader perspectives and more objective strategic decisions.

### The Influence of Age Diversity on Company Performance

This finding aligns with the research by [Audio and Serly \(2022\)](#), which suggests that age diversity does not have a significant impact on company performance. Therefore, hypothesis three (H3) is rejected in this study. Consistent with these results, [Chandra et al. \(2023\)](#) also found that age diversity within the board of directors does not significantly influence company performance, reinforcing the conclusion that age diversity is not a critical determinant of firm outcomes.

Agency Theory expects younger directors to bring new perspectives and a spirit of innovation, improving governance. Resource Dependence Theory suggests they bring skills such as technical knowledge and connections with younger markets, as well as adaptability to business changes ([Khalimatussyadiyah et al., 2025](#)).

The findings suggest that the positive impact of age diversity on company performance remains unrealized, likely because young directors represent only an average of 27.93%, which falls short of the critical mass. As shown by [Brahma et al. \(2021\)](#), significant effects tend to emerge above a 30% threshold.

### The Influence of Institutional Ownership on Company Performance

The results of this study align with those of [Dewi and Amelia \(2023\)](#); [Pandensolang and Utomo \(2024\)](#), which show that institutional ownership and company performance are negatively correlated. Therefore, hypothesis four (H4) is accepted. This may occur because institutional investors are the majority

shareholders, as indicated by the average institutional ownership of 62.18% (Table 2). A significant negative impact of institutional ownership on financial performance, measured by ROA, suggests that large institutional shareholdings may cause these entities to act in their own self-interest, often at the expense of minority shareholders. This dynamic can lead to an imbalance in corporate policy decisions, creating an unfavorable environment that hinders financial performance (Nasriani, 2021).

Agency theory helps explain conflicts between shareholders and managers (Jensen and Meckling, 1976). When institutional investors hold the majority, conflicts can also arise between majority and minority shareholders. While cooperation between investors and management should reduce agency problems, the negative link between institutional ownership and performance suggests it does not always work. This may stem from a mismatch between short-term investor goals and the company's long-term strategy, hurting performance.

#### **The Influence of Gender Diversity on Corporate Risk**

This study finds that female directors do not have a significant effect on corporate risk, consistent with Pertiwi et al. (2021), and therefore rejects hypothesis five (H5). The low representation of female directors (12.38% average) may account for the absence of impact. The findings differ from Nissa and Suwarno (2024); Leviana et al. (2022), who found that gender diversity can reduce risk.

Innayah et al. (2021) state that Resource Dependence Theory (RDT) argues that board diversity, including gender, provides companies with valuable resources for strategic decision-making. While female directors could offer caution and thorough oversight, these effects are not seen because boards remain mostly male. Women's contributions may be limited by underrepresentation or symbolic roles, preventing them from strongly affecting the company's risk management.

#### **The Influence of National Diversity on Corporate Risk**

This study finds no significant relationship between national diversity and corporate risk, supporting the rejection of hypothesis six (H6) and echoing the findings of Innayah et al. (2021) and Pertiwi et al. (2021). The average proportion of foreign directors (9%) appears insufficient to produce changes in risk management. This contrasts with Sari (2019), who observed a significant partial effect of foreign representation.

#### **The Influence of Age Diversity on Corporate Risk**

This study is consistent with Andriani and Winarno (2021), who found that board age does not have a significant effect on corporate risk. Andriani and Winarno (2021) explained that younger directors tend to be more willing to take risks to improve company performance, while directors over the age of forty are more prone to health-related or fatigue-related challenges, which may affect decision-making. However, the results of this study are not consistent with those of Pertiwi et al. (2021), who found an effect of age diversity on corporate risk. Therefore, hypothesis seven (H7) is rejected. According to the Resource Dependence Theory, age diversity among directors should be a strategic advantage. As explained by Pertiwi et al. (2021), "Age diversity increases experience, resources, knowledge, and networks among the board of commissioners," thereby strengthening decision-making quality in organizations. However, in this context, the benefits of age diversity are more evident in reducing bank credit risk than in DER policies. This indicates that while age diversity has positive value in enhancing oversight and risk management functions, its direct effects on funding policies such as the DER are not always significant, especially when the role of younger board members, which, based on Table 2, is still relatively low at only 27%, remains supplementary rather than serving as primary decision-makers.

#### **The Influence of Institutional Ownership on Corporate Risk**

This study suggests that institutional ownership is insufficient to significantly influence corporate risk. Therefore, hypothesis eight (H8) is rejected. According to Aminah and Wuryani (2021), high institutional

ownership is expected to influence manager behavior and mitigate agency conflicts. This finding is reinforced by the research of Saragih et al. (2020), which shows that debt policies in manufacturing companies listed on the Indonesia Stock Exchange are unaffected by institutional ownership. This means that, even though institutional investors are the majority shareholders and have the opportunity, resources, and ability to monitor managers, in practice, their influence on debt financing decisions is not significant. This may occur because, although institutional investors theoretically have considerable influence, in practice, they may not be sufficiently active in monitoring, or companies may still prefer to use internal funds rather than debt, especially in stable market conditions. This context is relevant to agency Theory: although institutional investors (principals) can monitor managers (agents), this collaboration may not always be effective in reducing opportunistic behavior or in promoting policies aligned with the company's long-term objectives, especially when there are priority misalignments or a lack of active oversight.

### **Control Variables**

In addition to analyzing the influence of the main independent variables on company performance and risk, this study also observes the role of control variables, namely board size and firm size. To isolate the precise impacts of board diversity and institutional ownership, these control variables are incorporated into the regression model to account for the effects of other company characteristics that may also affect performance and risk. According to the analysis's findings, board size has no discernible effect on ROA (company performance). Similarly, board size does not significantly affect company risk (DER). This suggests that changes in the number of board members, whether increases or decreases, do not result in statistically significant changes in company asset profitability or debt levels relative to company equity.

Meanwhile, the results of the company size analysis show that company size has a positive and significant effect on company performance (ROA). This indicates that larger companies tend to have better asset performance. However, company size does not have a significant effect on company risk (DER). Overall, the results of this control variable analysis enrich our understanding of the factors that simultaneously shape company performance and risk alongside board diversity and institutional ownership.

## **Conclusions and Recommendations**

The purpose of this study is to examine how institutional ownership and board diversity in terms of gender, nationality, and age affect ROA and DER for companies listed on the LQ45 index between 2020 and 2023. The results of the regression analysis indicate that board diversity, measured by nationality, has a significant impact on ROA. However, there is no appreciable effect of gender or age diversity on performance. In the meantime, ROA is significantly impacted negatively by the institutional ownership variable. None of the independent variables, however, substantially affects company risk as determined by DER.

The findings indicate that the limited proportion of female, foreign, and young directors, along with the passive role of institutional investors, reduces their contribution to improving company performance or mitigating corporate risk. In practice, this highlights the importance of companies, investors, and regulators strengthening diversity and encouraging more active participation by institutional owners to enhance governance effectiveness. Theoretically, the study contributes to the body of knowledge on corporate governance by providing new evidence from an emerging market context.

This study has several limitations, including a relatively short observation period, reliance on secondary data, and a simple measure of diversity. Furthermore, companies without female, foreign, or young directors were included as samples, which could have influenced the findings on the impact of diversity. Future research is recommended to explore mediating or moderating variables, such as ESG disclosure and the role of board committees, and to expand the sample and observation period to provide deeper, more comprehensive insights.

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