

Board Characteristics and Their Impact on Firm Performance

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Abstract

Purpose: This study examines the effects of board gender diversity, board experience, and board meetings attendance as board characteristics within the corporate governance framework on firm performance, measured by Return on Assets (ROA), in consumer non-cyclicals companies listed on the Indonesia Stock Exchange during 2021–2024. The study addresses inconsistent findings in prior corporate governance research and limited evidence from this sector.

Research Methodology: Secondary data were obtained from companies' annual reports and financial statements. The sample was selected using purposive sampling. Panel data regression was employed using the Random Effects Model (REM) with Panel Corrected Standard Errors (PCSE).

Results: Board gender diversity and board experience have no significant effect on firm performance (ROA), while board meetings attendance have a significant negative effect. Collectively, board characteristics significantly explain firm performance.

Conclusions: The findings suggest that firm performance depends not only on-board characteristics but also on the effectiveness of governance practices and firm-specific conditions.

Limitations: This study is limited to one industry sector, a four-year observation period, three board characteristics, and relatively low board gender diversity.

Contributions: This study contributes to the corporate governance literature by providing empirical evidence on the relationship between board characteristics and firm performance in Indonesia's consumer non-cyclicals sector, offering insights into the role of governance mechanisms in emerging markets.

Keywords: Board Characteristics, Board Gender Diversity, Corporate Governance, Firm Performance, Return on Assets

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1. Introduction

Firm performance is a reflection of the company's activities to realize its vision and mission, evaluated based on the contributions of employees, suppliers, and stakeholders who assist the company in developing, implementing, and monitoring strategic planning (Sephia, Robin, & Yulfiswandi, 2022). One of the ways that can be made to improve firm performance is through effective corporate governance structure management. Corporate governance plays a crucial role in strategy selection, resource allocation, and increasing corporate adaptation to ensure the firm remains competitive in a

dynamic environment ([Dwekat, Taweel, & Salameh, 2025](#)). By 2025, there are 19 companies planning to go public on the Indonesia Stock Exchange with large-scale assets, six of which are from the consumer non-cyclicals sector ([Tonce, 2025](#)). Companies preparing for an IPO and those already listed generally strive to demonstrate solid financial performance, including increasing Return on Assets (ROA), a key profitability indicator. The consumer non-cyclicals sector industry is a type of industry that produces or distributes primary necessities, such as food and beverages, household and personal care products, agricultural products, also basic necessities, characterized by stable market demand because it is not affected by economic conditions ([Utama, Sastrodiharjo, & Mukti, 2023](#)).

However, based on data obtained from the Indonesia Stock Exchange from six sample companies in the consumer non-cyclicals sector, it can be seen that firm performance (calculated based on return on assets) fluctuated significantly throughout 2021-2024. Companies with a nearly equal proportion of men and women on their boards of directors, with relevant board experience exceeding 60%, and near-perfect board meeting attendance, such as MLBI, UNVR, and KMDS, tend to have ROA values above 20%, indicating excellent or positive firm performance. Conversely, three sample companies (BTEK, MBTO, FLMC) with a low gender diversity on their boards and an average relevant board experience of 60%, are known to have negative ROA values, indicating that the companies experienced losses during the observation period, resulting in their assets not being able to generate profits. This reflects the low effectiveness of management in managing company assets to create profitability, despite the perfect proportion of board meeting attendance. Therefore, the phenomenon related to the influence of corporate governance attributes (board of directors) on firm performance, as measured by profitability, is very interesting to study, given the increasingly competitive dynamics of the Indonesian capital market.

Agency Theory suggests that an effective board mitigates agency conflicts by strengthening monitoring and strategic oversight, thereby improving managerial decision-making and firm performance. Resource Dependence Theory argues that directors contribute valuable knowledge, experience, and external networks that enhance organizational resources and strategic capabilities. Accordingly, board gender diversity, board experience, and board meetings attendance represent important board characteristics that may influence firm performance through improved governance quality and strategic decision-making. Research conducted by [Magoma and Ernest \(2023\)](#) outlines several potential benefits of a higher proportion of board directors in a company. Among them, women are considered more independent and are considered able to provide different perspectives, which will lead to improved firm performance.

According to [Eswaran \(2019\)](#) report, Southeast Asia has a female worker participation rate of 42%, which is higher than the global average of 39%. This is a positive sign, although the best implementation of gender equality is still dominated by European countries. Based on the World Economic Forum rankings, which are measured based on four assessment dimensions (economic opportunity, education, health, and political leadership), Iceland ranks first in the implementation of gender equality with a gap of 91.2%. Research conducted by [Gharios, Awad, and Seissian \(2024\)](#), [Tran, Le, Nguyen, and Ho \(2024\)](#), and [Bouchmel, Ouakdi, Ftiti, Louhichi, and Omri \(2022\)](#) demonstrated a significant contribution of board gender diversity to firm performance. Conversely, research by [Tanwer \(2025\)](#) and [Wang, Ma, Xue, and Zhang \(2024\)](#) indicated a negative effect of board gender diversity on firm performance. Meanwhile, previous research by [Amo, García-López, and Hamoudi \(2025\)](#), [Oyegoke, Iyoha, Eriabie, and Adeyemo \(2025\)](#), [Magoma and Ernest \(2023\)](#), [Singh, Singhania, and Aggrawal \(2023\)](#), [Kanakriyah \(2021\)](#), [Simionescu, Gherghina, Tawil, and Sheikha \(2021\)](#), and [Farhana \(2020\)](#) found that board gender diversity had no effect on firm performance.

A board of directors with relevant backgrounds brings a wealth of industry-specific insights that can improve the quality of corporate governance. This enables the board of directors to make informed decisions, contributing to the company's strategic resilience and adaptability ([Dwekat et al., 2025](#)). Mercedes-Benz selected board members with relevant experience to develop and restructure its corporate governance approach, and systematically integrate sustainability into its strategy ([Mercedes-Benz, 2024](#)). Another example comes from PT Garuda Indonesia (*Persero*) Tbk (GIAA), which has

appointed two foreign nationals as board members with a combined 25 years of aviation experience. Previous studies examining the effect of board experience on firm performance by [Dwekat et al. \(2025\)](#), [Danso, Adusei, Sarpong-Danquah, and Prempeh \(2024\)](#), and [Tejerina-Gaite and Fernández-Temprano \(2021\)](#) showed a tendency towards a positive effect. Conversely, studies conducted by [Fayyaz, Jalal, Venditti, and Antonucci \(2025\)](#) and [Fernández-Temprano and Tejerina-Gaite \(2020\)](#) showed that board experience has a negative effect on firm performance. Meanwhile, studies by [Oon and Chia \(2025\)](#), [Sidki, Boerger, and Boll \(2024\)](#), and [Nugraha \(2023\)](#) found that board experience has no effect on firm performance.

Board meetings are considered a valuable opportunity to help the board of directors discuss organizational policies and strategies in depth. Furthermore, board meetings are also useful for evaluating the firm's operational activities ([Tanwer & Garg, 2024](#)). Based on Otoritas Jasa Keuangan No 33/POJK.04/2014 concerning the Board of Directors and Board of Commissioners of Issuers or Public Companies, the board of directors is required to hold regular meetings, at least once a month, to ensure that company management is carried out collegially and monitored. Meetings can be held by the president director or other board members who submit a written request, and can also be requested by the board of commissioners if there is a specific need ([Otoritas, 2014](#)). Several previous studies have shown that board of director meetings have a positive impact on firm performance, consistent with the findings of research conducted by [Arsh, Ansari, Ahmad, Enam, Tabash, and Al-Absy \(2025\)](#). However, research by [Ofori, Padi, and Musah \(2025\)](#), [Abderahmane and Abdelillah \(2025\)](#), and [Bettinelli, Gentry, and Dibrell \(2023\)](#) found that board of director meetings negatively impacted firm performance. Meanwhile, research by [Kausar and Wajid \(2024\)](#), [Tanwer and Garg \(2024\)](#), [Al-Absy and AlMahari \(2023\)](#), and [\(Al-Absy, Mujeeb, & Hasan, 2023\)](#) showed no effect of board of director meetings on firm performance.

Although numerous studies have examined the relationship between board characteristics and firm performance, the empirical evidence remains inconclusive. Prior studies report mixed findings regarding the effects of board gender diversity, board experience, and board meetings attendance on firm performance, with positive, negative, and insignificant results. This inconsistency indicates that the effectiveness of board characteristics may depend on industry-specific governance practices and organizational contexts, creating a need for further investigation. Therefore, the implementation of good corporate governance becomes increasingly important, particularly through the characteristics and activities of the board of directors. Methodologically, this study employs the Blau Index to measure board gender diversity, providing a more comprehensive assessment of board heterogeneity than the commonly used gender diversity measure. In addition, the analysis incorporates firm liquidity, leverage, firm size, and sales growth as control variables to isolate the effects of board characteristics on firm performance and improve the robustness of the empirical findings.

2. Literature Review and Hypotheses Development

2.1 Agency Theory

Agency Theory was first proposed by Michael C. Jensen and William Meckling in 1976, explaining the relationship between principals (shareholders) and agents (management) to carry out certain actions for the benefit of the principal, including in making decisions, resulting in a conflict of interest. This conflict of interest between principals and agents arises because of the possibility that management may not behave in accordance with the goals of shareholders, thus giving rise to agency costs ([Godfrey, Hodgson, Tarca, Hamilton, & Holmes, 2010](#)). The implementation of good corporate governance can encourage companies to consistently apply ethical business principles and create a healthy, efficient, and transparent work environment, thereby minimizing conflicts of interest between principals and agents ([Salim, Lioe, Harianto, & Adelina, 2022](#)). From this perspective, board characteristics may influence the effectiveness of governance. A more diverse board may enhance the quality of discussion and reduce the risk of groupthink, enabling more objective monitoring. Directors with greater experience are expected to make better strategic decisions and exercise more effective oversight. Likewise, regular board meetings provide opportunities to evaluate corporate performance, monitor management actions, and respond promptly to emerging business issues ([Gharios, Awad, &](#)

[Seissian, 2024](#)). Consequently, Agency Theory suggests that board characteristics can affect firm performance through improvements in monitoring effectiveness and strategic decision-making.

2.2 Resource Dependence Theory

Resource Dependence Theory was proposed by Pfeffer & Salancik in 1978 which emphasizes the strategic role of the board of directors in providing organizations with valuable resources, knowledge, expertise, and external networks. According to RDT, the board not only performs a monitoring function but also facilitates organizational access to critical resources that enhance competitiveness and long-term performance ([Oyegoke et al., 2025](#)). From the Resource Dependence Theory perspective, board gender diversity enriches the board with diverse knowledge, perspectives, and problem-solving approaches, which can improve the quality of strategic decisions. Likewise, directors with extensive experience possess accumulated expertise, industry knowledge, and professional networks that support more effective strategic planning and organizational adaptability ([Fernández-Temprano & Tejerina-Gaite, 2020](#)). Regular board meetings also provide a platform for directors to exchange information, evaluate business opportunities and risks, and coordinate strategic decisions. Therefore, Resource Dependence Theory suggests that board characteristics may contribute to firm performance by strengthening the board's advisory and resource-provision functions in addition to its monitoring role.

2.3 Firm Performance

Profitability is the net result of a number of policies and decisions taken by company management. Furthermore, profitability provides useful clues regarding the effectiveness of operational and financing policies, reflecting firm performance ([Brigham & Ehrhardt, 2017](#)). According to Agency Theory, effective corporate governance reduces agency conflicts between managers and shareholders by strengthening monitoring and accountability. As the primary decision-making body, the board of directors is expected to oversee managerial actions, mitigate opportunistic behavior, and ensure that corporate resources are managed efficiently. Consequently, effective governance is expected to improve firm performance by enhancing operational efficiency and profitability. Resource Dependence Theory complements this perspective by emphasizing that firm performance is also influenced by the board's ability to provide valuable resources, expertise, information, and external networks. Directors with diverse gender, relevant experience, and active participation in board meetings can facilitate access to strategic resources and improve the quality of strategic decisions, thereby strengthening the firm's competitive position and long-term performance ([Oyegoke et al., 2025](#)). This study measures firm performance using Return on Assets (ROA) to measure management's effectiveness in utilizing corporate assets to generate profits and reflects the firm's operational efficiency.

2.4 Board Gender Diversity

Board gender diversity reflects the heterogeneity of gender composition within the board of directors to promote gender equality, aiming to eliminate gender disparities in various aspects of life ([Andersen & Taylor, 2013](#)). From the Agency Theory perspective, gender-diverse boards are expected to strengthen monitoring effectiveness by reducing groupthink, encouraging independent judgment, and improving the quality of board deliberations. Complementing this perspective, Resource Dependence Theory argues that board diversity broadens the pool of knowledge, skills, perspectives, and external networks available to the firm ([Wijaya & Memarista, 2024](#)). This study measures board gender diversity using the Blau Index because it captures the degree of heterogeneity in board composition rather than merely the proportion of female directors. Compared with a simple gender diversity, the Blau Index provides a more comprehensive representation of board diversity. However, it measures demographic diversity only and does not reflect differences in directors' competencies, influence, or participation in board decisions. Furthermore, gender diversity is also an indicator of good corporate governance practices ([Magoma & Ernest, 2023](#)). Ultimately, the proportion of the board of directors can help attract and retain top talent as companies strive to demonstrate appreciation for diversity ([Tran et al., 2024](#)). In the Indonesian corporate governance context, where boards of directors are responsible for managing the company's operations and implementing corporate strategy, greater

gender diversity is expected to improve the quality of governance and contribute to higher firm performance. Therefore, the following hypothesis is proposed:

H₁: The gender diversity of the board of directors has a positive effect on firm performance

2.5 Board Experience

Board experience reflects the accumulated knowledge and expertise possessed by directors through their tenure and professional involvement ([Fernández-Temprano & Tejerina-Gaite, 2020](#)). Agency Theory suggests that experienced directors are better able to monitor management, evaluate strategic decisions, and reduce information asymmetry because they have a deeper understanding of the firm's operations and governance processes ([Dwekat et al., 2025](#)). From the perspective of Resource Dependence Theory, experienced directors also provide valuable organizational resources through their industry knowledge, professional expertise, and external networks, enabling firms to respond more effectively to environmental challenges and business opportunities. This study measures board experience as the proportion of directors with more than five years of experience. While this measure reflects accumulated organizational knowledge, it may not fully capture differences in managerial competence, industry specialization, or leadership capability. Moreover, prolonged tenure may enhance the board's connections, facilitating collaboration with strategic partners, opening up opportunities for market exploration, and assisting in the company's performance evaluation process ([Fayyaz et al., 2025](#)). Besides that, the experience possessed by the board of directors also plays a role in helping the company obtain important resources by monitoring relations with suppliers, distributors, and key customers ([Sidki et al., 2024](#)). In Indonesian companies, where directors play a central role in corporate management and business strategy, greater board experience is expected to enhance governance effectiveness and improve firm performance. Therefore, the following hypothesis is proposed:

H₂: Board of directors' experience has a positive effect on firm performance

2.6 Board Meetings Attendance

A board of directors meeting is a routine meeting of the board of directors to discuss policies or issues within the company ([Kausar & Wajid Shakeel Ahmed, 2024](#)). The frequency of board of directors meetings reflects the level of board oversight of company management as a form of operational risk mitigation in the company ([Ofori et al., 2025](#)). Agency Theory argues that regular board meetings improve governance effectiveness by providing opportunities to evaluate managerial performance, monitor corporate activities, and reduce agency conflicts through more intensive oversight. Resource Dependence Theory further suggests that board meetings facilitate the exchange of information, expertise, and external knowledge among directors, thereby supporting better strategic decisions and organizational responsiveness. In this study, board meetings attendance are measured using the directors' attendance rate, which reflects the extent of directors' participation in governance activities. This measure emphasizes the quality of board engagement rather than merely the number of meetings. Nevertheless, a high attendance rate does not necessarily indicate effective discussions or better governance outcomes, as meeting effectiveness also depends on the quality of deliberations, agenda relevance, and directors' contributions to strategic decision-making ([Arsh et al., 2025](#)). Within the Indonesian corporate governance framework, effective board meetings are expected to improve coordination and strategic oversight, thereby contributing to better firm performance. Therefore, the following hypothesis is proposed:

H₃: Board of directors meetings have a positive effect on firm performance

Based on the disclosure of the theoretical basis and the description of previous research, this research can be described through the following conceptual framework in the Figure 1:

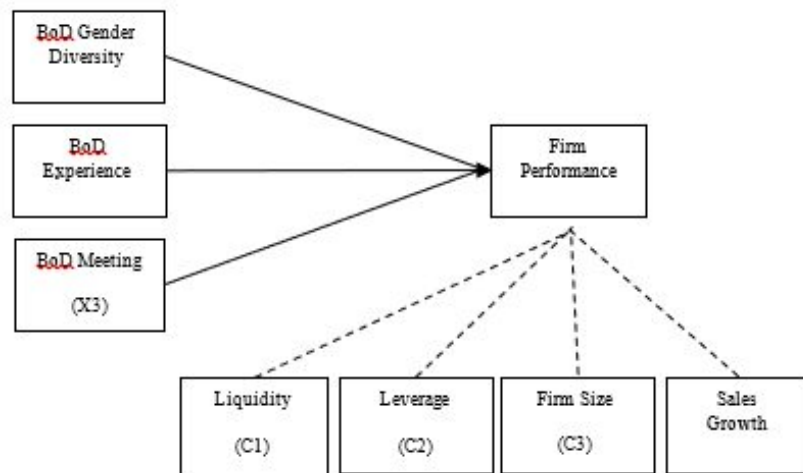


Figure 1. Conceptual framework

This study includes three independent variables, such as the gender diversity of the board of directors, directors' experience, and board meetings attendance with firm performance as the dependent variable. Meanwhile, there are four control variables: liquidity, leverage, firm size, and sales growth. Current ratio is used to measure liquidity in this study, which serves as an indicator of a company's ability to meet its short-term obligations. Leverage is measured using debt to equity ratio to assess the extent to which a company utilizes debt financing. In this study, firm size is measured by total sales to represent the potential for economies of scale and greater organizational resource capacity. Sales growth reflects a company's ability to increase revenue from its operational activities.

3. Research Methodology

The sample was selected using purposive sampling based on the following criteria: consumer non-cyclicals companies consistently listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period; companies that published complete annual reports and audited financial statements for the observation period; companies that did not experience negative equity during the observation period. After applying these criteria, the final sample consisted of 85 companies. The empirical model used in this study is specified as follows in Formula 1 :

$$ROA_{it} = \beta_0 + \beta_1 DGD_{it} + \beta_2 DE_{it} + \beta_3 DM_{it} + \beta_4 CR_{it} + \beta_5 DER_{it} + \beta_6 FS_{it} + \beta_7 SG_{it} + \mu_i + \epsilon_{it} \quad (1)$$

where ROA represents firm performance, DGD is board gender diversity, DE denotes board experience, DM represents board meeting attendance, CR is liquidity, DER is leverage, FS is firm size, SG is sales growth, (i) denotes firms, and (t) denotes the year.

3.1 Firm Performance

Based on agency theory, Return on Asset (ROA) is used as a firm performance indicator, reflecting the effectiveness of managers in managing company assets to generate profits. A relatively high return on assets indicates that agency conflicts can be minimized through efficient resource management, while a low ROA indicates potential inefficiency and conflicts of interest between managers and shareholders (Gharios et al., 2024). The Return on Asset is calculated using the following Formula 2:

$$ROA = \frac{NetProfit}{TotalAsset} \quad (2)$$

3.2 Board Gender Diversity

As women's contributions to social roles increase, female directors are seen as offering new resources that enable companies to adapt to increasingly diverse challenges in line with changing times (Wang

[et al., 2024](#)). Gender equity is considered to have numerous benefits in supporting improved firm performance. Therefore, based on agency theory, gender equity can be used as a means by principals to minimize conflicts of interest between principals (shareholders) and agents (management). The Board Gender Diversity is measured using the Blau Index Formula [3](#):

$$\text{Blau Index} = \left(1 - \sum_{i=1}^k p_i^2 \right) \quad (3)$$

3.3 Board Experience

Board members with professional experience in the industry in which the company operates will develop a solid knowledge base regarding industry performance and the company's competitive environment, enabling the board to provide effective input to company management ([Fernández-Temprano & Tejerina-Gaite, 2020](#)). This experience provides assurance that the board has the capacity to run the company effectively, thus ensuring shareholder confidence that the board will act in their best interests. Board Experience is measured using the Formula [4](#):

$$\frac{\text{Number of board members with related experience}}{\text{Total board of director members}} \quad (4)$$

3.4 Board Meetings Attendance

Board meetings provide more time for the board to discuss important issues, develop and evaluate policies, and effectively oversee company management ([Tanwer & Garg, 2024](#)). Board meetings are a tool to ensure management accountability, improving performance and reducing the severity of negative feedback directed at management ([Kausar & Wajid Shakeel Ahmed, 2024](#)). Through these regular meetings, shareholders expect management to make business decisions that align with their interests, thereby improving firm performance and minimizing conflicts of interest. Board Meetings attendance is measured using the Formula [5](#):

$$\frac{\text{Number of attendees at board of directors meetings}}{\text{Total board of directors meetings held}} \quad (5)$$

4. Results and Discussions

4.1 Results

4.1.1 Data Analysis

4.1.1.1 Descriptive Statistical Test

Descriptive statistical testing was conducted to analyze the general picture of the total power used in the study (n), the minimum value, maximum value, average value (mean), and standard deviation of each research variable, such as firm performance (ROA), gender diversity of the board of directors (DGD), experience of the board of directors (DE), board of directors meetings (DM), liquidity (CR), leverage (DER), firm size (FS), and sales growth (SG). The following are the results of descriptive statistical testing of each research variable:

Table 1. Results of descriptive statistical analysis

Variables	N	Minimum	Maximum	Mean	Std. Deviation
ROA	340	-0.562	0.944	0.054	0.103
DGD	340	0.000	0.500	0.200	0.208
DE	340	0.250	1.000	0.791	0.217
DM	340	0.615	1.000	0.979	0.055

Variables	N	Minimum	Maximum	Mean	Std. Deviation
CR*	340	0.178	13.396	2.241	2.032
DER*	340	0.064	38.172	1.726	3.703
FS*	340	24.292	32.458	28.701	1.855
SG*	340	-6.299	0.802	0.022	0.588

Based on Table 1, the study comprises a total of 340 data points from 85 companies in the primary consumer goods sector listed on the Indonesia Stock Exchange during the 2021–2024 period. The dependent variable in this study, ROA, shows a minimum value of -0.562 and a maximum value of 0.944. The mean ROA value of 0.054 indicates that, in general, the sampled companies are able to generate a profit equivalent to 5.4% of their total assets. The standard deviation of 0.103 indicates a high level of variation in ROA, suggesting that the profitability of the companies in the research sample tends to vary.

The independent variable representing the gender diversity of the board of directors (DGD) has a minimum value of 0.000, indicating a homogeneous board composition (in terms of gender). Meanwhile, the maximum DGD value is 0.500, representing a balanced proportion of male and female directors. The mean DGD value is 0.200 (or 20%), indicating that the gender diversity on boards of directors in Indonesia's basic necessities sector remains low. A standard deviation of 0.208 indicates significant variation in the data, suggesting a tendency toward heterogeneity.

The board of Directors Experience (DE) variable has a minimum value of 0.250, indicating that, in general, the companies in the sample have boards with relatively low experience levels. The maximum value of 1.000 indicates the existence of a company where all board members (100%) possess more than five years of experience. The mean value of 0.791 indicates that, overall, approximately 79.1% of board members across the sampled companies have more than five years of experience. This suggests that the majority of companies have relatively experienced boards. The standard deviation of 0.217 indicates that the variation in experience levels across companies is relatively low compared to the mean.

The board of Directors Meeting (DM) variable has a mean value of 0.979. This indicates that, in general, meeting attendance rates among the boards of the sampled companies are very high. The minimum value of 0.615 indicates a relatively good level of meeting attendance, while the maximum value of 1.000 indicates companies with perfect attendance. The very low standard deviation of 0.055 indicates minimal variation in the data across companies, suggesting a tendency toward homogeneity.

4.1.1.2 Estimation and Selection of Panel Data Regression Models

In panel data regression, there are three modeling approaches used: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Chow test was first performed to compare the Common Effects Model (CEM) and the Fixed Effects Model (FEM). The Chow test was conducted to determine the most appropriate panel data estimation model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). The results of the Chow test are presented in Table 2.

Table 2. Result of Chow Test

<i>Prob > F</i>	0.000
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The Hausman test was subsequently conducted to determine the most appropriate estimation model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) following the results of the Chow test. The results of the Hausman test are presented in Table 3.

Table 3. Result of Hausman Test

<i>Prob > chi2</i>	0.078
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The Lagrange Multiplier (LM) test was finally conducted to determine the most appropriate model between the Common Effect Model (CEM) and the Random Effect Model (REM) for panel data estimation. The results of the LM test are presented in Table 4.

Table 4. Result of Lagrange Multiplier Test

<i>Prob > chibar2</i>	0.000
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Based on the model selection test, the Random Effect Model (REM) is the most appropriate model for this study.

4.1.1.3 Multicollinearity Test

The multicollinearity test was conducted to examine the correlation among independent variables in the regression model. A good regression model should not exhibit multicollinearity, as a high correlation among independent variables may lead to unstable regression coefficients, increased standard errors, and difficulties in interpreting the individual effects of each variable on the dependent variable. The results of the multicollinearity test are presented in Table 5.

Table 5. Result of Multicollinearity Test

	DGD	DE	DM	CR	DER	FS	SG
DGD	1.000						
DE	-0.105	1.000					
DM	0.103	0.092	1.000				
CR*	-0.036	-0.092	0.020	1.000			
DER*	0.051	-0.035	0.026	-0.254	1.000		
FS*	-0.103	0.279	-0.149	-0.065	-0.010	1.000	
SG*	0.087	-0.033	-0.017	0.094	0.002	0.170	1.000

Based on the results of the multicollinearity test using the correlation matrix, all correlation values between the independent variables were found to be below 0.90. Therefore, the model is free from multicollinearity issues and is suitable for hypothesis testing.

4.1.1.4 Heteroscedasticity Test

The heteroscedasticity test aims to detect any unequal residual variances across observations in a regression model. A good regression model should have constant variance (homoscedasticity) to avoid biased standard errors that could influence the results of hypothesis testing in Stata output.

Table 6. Result of Heteroskedaticity Test

<i>Prob > chi2</i>	0.000
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Based on the results of the heteroskedaticity test in Table 6 a probability value of 0.000 indicating that the model exhibits heteroskedasticity and requires correction. The Panel Corrected Standard Errors method was employed to address this issue by generating standard errors that are robust to heteroskedasticity, thereby ensuring more accurate t-statistic and probability values.

4.1.1.5 Autocorrelation Test

The autocorrelation test aims to determine the correlation between residuals from one period and residuals from other periods in a regression model. A good regression model should be free of autocorrelation, as this can lead to inefficient coefficient estimates and inaccurate hypothesis testing conclusions.

Table 7. Result of Heteroskedaticity Test

<i>Wooldridge Test</i>	0.175
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Based on the results of the Wooldridge autocorrelation test in Table 7, the obtained probability value is 0.175. Therefore, it can be concluded that the model is free from autocorrelation.

4.2 Hypotheses Testing and Discussion

4.2.1 Coefficient of Determination

This study employs panel data to examine the impact of the board of directors' gender diversity, experience, and meetings on firm performance over a four-year period (2021–2024), thereby enabling a comparison of performance among companies in the consumer staples sector over time.

Table 8. Results of the Coefficient of Determination (R^2)

Statistic	Value
Adjusted R-squared	0.165
Prob(F-statistic)	0.000

Based on the results of panel data regression using the Random Effect Model (REM) in Table 8, a probability value of 0.0000 was obtained, which is smaller than the 0.05 significance level. These results indicate that the model fits and is simultaneously significant, and that all independent variables jointly influence firm performance (ROA). Furthermore, the adjusted R-squared value of 0.165, or 16.5% of the variation in firm performance, can be explained by the variables in this study, while the remainder (83.5%) can be explained by other variables outside the research model.

4.2.2 Result of *t*-test

Table 9. Results of *t*-test

Variables	Coefficient	Std. Error	<i>z</i>	Prob.
C	-0.203	0.121	-1.680	0.093
DGD	0.014	0.019	0.730	0.464
DE	0.011	0.014	0.770	0.439
DM	-0.164	0.085	-1.920	0.055
CR*	0.009	0.001	6.240	0.000
DER*	-0.005	0.002	-2.680	0.007
FS*	0.014	0.003	3.940	0.000
SG*	0.012	0.022	0.530	0.593

Based on Table 9, the panel data regression equation model used in this study can be described as follows Formula 6 :

$$ROA = -0.203 + 0.014DGD + 0.011DE - 0.164DM + 0.009CR - 0.005DER + 0.014FS + 0.012SG + \mu + \varepsilon \quad (6)$$

This study uses a 10% significance level to test the effect of board gender diversity, board experience, and board meetings attendance on the performance of companies in the consumer non-cyclicals sector. This significance level is applied to minimize the risk of type II errors and provide a fair tolerance for statistical error. According to [Gujarati & Porter \(2009\)](#), a 10% significance level is an acceptable and commonly used basis in business and economic research, especially in models with high data variability.

The results of the research hypothesis test indicate that the gender diversity of the board of directors does not significantly impact firm performance. These results align with research by [Amo et al. \(2025\)](#), [Oyegoke et al. \(2025\)](#), [Magoma & Ernest \(2023\)](#), [Singh et al. \(2023\)](#), [Kanakriyah \(2021\)](#), [Simionescu et al. \(2021\)](#), and [Farhana \(2020\)](#), which found that gender diversity has no impact on firm performance. Although intense competition drives companies to enhance efficiency and profitability, this pressure has not resulted in uniform performance improvements. Research data reveals significant fluctuations in the Return on Assets (ROA) of companies in the basic necessities sector, with some firms recording positive ROA and others negative ROA during the study period. Statistical data from this study shows that the average gender proportion on boards of directors in Indonesia's basic necessities sector remains very low, at just 20% meaning its influence on strategic

decision-making processes is insufficient to drive significant changes in corporate performance. Consequently, performance fluctuations in this sector are driven more by other factors, such as operational efficiency, raw material price changes, pricing strategies, asset management effectiveness, capital structure, and the company's ability to adapt to market conditions. In other words, variations in corporate performance are influenced more by operational and financial factors than by the gender composition of the board of directors. Based on agency theory, gender diversity on the board of directors can improve oversight quality due to differences in perspectives, leadership styles, and the higher level of prudence that gender diversity can provide in the board structure ([Wang et al., 2024](#)). However, the results of this study indicate the opposite, driven by the low proportion of women on the boards of directors of companies in the basic necessities sector. This low proportion suggests that gender balance within the board remains limited, thereby failing to optimally strengthen the board's monitoring function as described in agency theory. In terms of industry characteristics, the basic necessities sector exhibits high demand stability because its products constitute essential needs for the public ([Chalis, 2025](#)). Consequently, company performance is driven more by operational and financial factors than by strategic factors stemming from the composition of the board of directors.

The results of the research hypotheses test indicate that board experience does not significantly influence firm performance. These results align with research by [Oon & Chia \(2025\)](#), [Sidki et al. \(2024\)](#), and [Nugraha \(2023\)](#) which found that board experience has no effect on firm performance. These findings indicate that the experience of board members is not the primary determinant of a company's ability to generate profit. Although the consumer staples sector continues to expand, evidenced by the growing number of companies listed on the Indonesia Stock Exchange and rising interest in Initial Public Offerings (IPOs), this growth is accompanied by increasingly intense competition. In this environment, companies must enhance operational efficiency, control costs, and optimize asset utilization to sustain profitability. The fluctuating performance observed in the consumer staples sector suggests that a company's success in improving performance is driven more by fundamental factors, such as financial structure, operational efficiency, and asset management than by the individual characteristics of board members. Ultimately, board experience does not necessarily lead to more effective decision-making unless it is supported by the organization's capacity to execute established strategies. Based on agency theory, board experience should enhance monitoring capabilities because experienced board members are considered to have a better understanding of business strategy, risk management, and operational oversight. Experience is also expected to minimize information asymmetry between the agent and the principal ([Fayyaz et al., 2025](#)). However, the results of this study indicate the opposite, thus disproving the agency theory perspective. In the Indonesian context, the ownership structure of companies in the consumer non-cyclicals sector tends to remain concentrated among controlling shareholders. This is understandable because 95% of companies listed on the IDX are family-owned, leading to the strategic decision-making process being dominated by a select group, and the experience of the board of directors is not a primary consideration ([Handoyo, 2025](#)). Consequently, the role of the board of directors, including the contribution of their experience, is suboptimal and does not significantly impact firm performance.

The results of the research hypothesis test indicate that the variable board of directors' meetings has a negative effect on firm performance. These findings align with research by [Ofori et al. \(2025\)](#), [Abderahmane & Abdelillah \(2025\)](#), and [Bettinelli et al. \(2023\)](#) which found that meeting frequency negatively impacts firm performance. The significant performance variations observed among companies in the consumer staples sector suggest that the effectiveness of resource management differs across these firms. Companies facing greater challenges typically require more intensive coordination, often involving board meetings to evaluate strategies, manage risks, and establish new policies. However, an increase in meeting frequency does not necessarily translate into improved corporate performance, as strategic decisions require time to be implemented and to yield results in terms of financial outcomes. Based on agency theory, board meetings are essentially a monitoring mechanism to mitigate conflicts of interest between management and shareholders, thus improving firm performance. However, the findings of this study reveal that the beneficial effects of increasing the frequency of board meetings occur up to a tipping point, as excessively frequent meetings can be

inefficient and even counterproductive, rendering the board ineffective ([Bettinelli et al., 2023](#)). Excessively frequent board meetings can increase company expenses, such as increased travel costs, administrative costs, and meeting expenses. Furthermore, excessively frequent meetings can distract the board of directors from more productive activities or lead to reduced involvement in more direct business actions ([Abderahmane & Abdelillah, 2025](#)). Therefore, while board meetings attendance are important, their frequency should be optimized to balance oversight with operational efficiency, thus not hampering firm performance. In the Indonesian context, corporate ownership structures tend to be concentrated in the hands of controlling shareholders, such as families, which can limit the strategic role of board meetings ([Hidayat, 2025](#)). Important company decisions are often determined by the majority shareholder or top management before being discussed in the meeting forum, rendering board meetings ineffective in influencing decisions made.

5. Conclusions

5.1 Conclusion

This study examines the effects of board gender diversity, board experience, and board meetings attendance on firm performance, measured by Return on Assets (ROA), in Indonesian consumer non-cyclicals companies during the 2021–2024 period. The findings indicate that board gender diversity and board experience do not have a significant effect on firm performance, whereas board meetings have a significant negative effect. Furthermore, liquidity and firm size positively affect firm performance, leverage has a significant negative effect, and sales growth has no significant effect. Overall, the board characteristics and control variables are jointly significant in explaining firm performance, suggesting that firm performance is influenced not only by board characteristics but also by firms' financial conditions and organizational characteristics.

This study contributes to the corporate governance literature by extending the application of Agency Theory and Resource Dependence Theory in explaining the relationship between board characteristics and firm performance in Indonesian consumer non-cyclicals companies. It also provides a methodological contribution by measuring board gender diversity using the Blau Index and incorporating liquidity, leverage, firm size, and sales growth as control variables to provide a more comprehensive assessment of firm performance. Practically, the findings suggest that companies should prioritize board effectiveness rather than merely complying with corporate governance requirements by appointing directors with complementary competencies and expertise, utilizing directors' experience to strengthen strategic oversight, and ensuring that board meetings attendance emphasize the quality of discussions, strategic decision-making, and implementation of board resolutions. In addition, companies should maintain sound liquidity, manage leverage prudently, and optimize organizational resources to support sustainable firm performance.

5.2 Research Limitations

This study has several limitations that should be considered to inform future research. First, the study only used a sample of 85 companies in the consumer non-cyclicals sector, so the results cannot necessarily be generalized to other industrial sectors. Second, the study period was relatively short, only four years (2021–2024). Third, the study focused solely on the variables of board gender diversity, board experience, and board meetings, thus failing to address other governance factors that could potentially impact firm performance. Furthermore, there are limitations related to the low gender diversity of directors in consumer non-cyclicals companies.

5.3 Suggestions and Directions for Future Research

Future research is recommended to expand the research object by using a sample of companies from various industrial sectors so that the results can be generalized more widely. Further research is also recommended to extend the research period to be able to describe the condition of the company within a certain period, thus providing more comprehensive results. Future researchers are advised to add other independent variables related to corporate governance, such as the educational background of directors, the diversity of the board of directors' ages, managerial ownership, institutional ownership, compensation implementation, and audit committee characteristics that have the potential to influence firm performance. Future research is recommended to use samples with a higher gender diversity or

expand the scope of the research sector to allow a more comprehensive analysis of the influence of gender diversity on firm performance. In addition, future research can use a mixed methods approach with a sequential explanatory design to combine quantitative and qualitative data analysis. This approach is expected to provide a more comprehensive understanding in future research.

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Author Contributions

NM conceived and designed the study, collected and analyzed the data, interpreted the findings, and drafted the manuscript, while DW provided academic supervision, contributed to the research design and methodology, critically reviewed and revised the manuscript, and provided final approval for publication. All authors read and approved the final manuscript.

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