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Board of Director Characteristics and Financial Distress in the ASEAN Region: The Moderating Role of Sustainability Committee

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Abstract: This research is motivated by the emergence of the Covid-19 pandemic, which has caused a crisis for companies in various business sectors, potentially leading to financial distress. Board of director characteristics such as gender diversity, education, and tenure can be important aspects in navigating difficult circumstances. The sustainability committee is also a much-needed committee and is expected to strengthen board characteristics in mitigating financial distress. This study uses a quantitative approach with secondary data from 202 companies in the ASEAN region for the period 2020-2024. Data analysis was conducted using panel data regression, a moderated regression analysis, and robust standard error with the assistance of Eviews 12. The results show that gender diversity and education have no significant effect on financial distress, while tenure positively affects financial distress. The sustainability committee cannot moderate the effect of gender diversity and tenure on financial distress but can weaken the positive effect of education on financial distress. These findings indicate that financial distress can be reduced when the board of directors implements its intellectual insights together with the sustainability committee. However, companies should be wary of the average director tenure because it has the potential to increase financial distress.

Keywords: Financial Distress, Director Gender Diversity, Director Education, Director Tenure, Sustainability Committee.

INTRODUCTION

December 2019 was the beginning of unrest throughout the world due to the emergence of Coronavirus Disease 2019 (COVID-19). This pandemic has caused changes in the world economy, thus impacting the weakening of business activity in general (Fahik & Safriliana, 2022). Survey from ASEAN Studies Centre at ISEAS-Yusof Ishak Institute in 2024 showed that 59.9% of 1,994 respondents believed ASEAN was unable to return to pre-pandemic economic growth. This matter became the top three concerns about ASEAN in the survey (Seah et al., 2024). The Economic Research Institute for ASEAN and East Asia (ERIA) conducted a

survey of 1,333 companies across ASEAN countries in 2021. The results showed that all ASEAN countries experienced a decline in sales and operating profits. Some countries, such as Singapore, Thailand, and Malaysia, even recorded a decline of more than 50% of their companies (ERIA, 2021). If the company is unable to compete in crisis like this, it will suffer continuous losses until it experiences financial distress (Fachrunnisa et al., 2024).

Financial distress is a condition in which a company faces significant financial difficulties that could threaten the continuity of its business (Muien et al., 2024). Under these conditions, companies tend to face a number of operational constraints, including low sales, high expenses, unrealistic budget planning and pricing policies, limited cash flow for operational activities, limited cash balances, and poor debt management (Younas et al., 2021). Declining sales and profits, as well as a company's inability to repay debt or meet financial obligations, can be signs of financial distress (Kumar & Mohan, 2025; Halim & Riswan, 2024; Guizani & Abdalkrim, 2023). In facing these problems, companies need Good Corporate Governance (GCG) which is known for its contribution to the success and failure of companies (Alzayed et al., 2023). The board of directors is a key pillar in GCG that guiding the company direction, overseeing management actions, ensuring adequate internal control and risk management systems, and maintaining healthy relationships between the company, shareholders and other stakeholders (OECD, 2025). Through appropriate decision-making, the quality of the board of directors' leadership becomes a determining factor in the company's success in overcoming financial difficulties and achieving sustainable growth, where the quality of leadership is closely related to managerial characteristics (Wulandari & Romli, 2025).

PricewaterhouseCoopers (PwC) Malaysia in its Corporate Director Survey 2024 stated that several characteristics such as gender diversity, skills, and balanced tenure can improve decision-making and ultimately lead to increased company profits (PwC Malaysia, 2025). Survey from The Institute of Corporate Directors Malaysia (ICDM) in 2024 on the board of directors originating from ASEAN countries showed that gender diversity is important priorities that need to be improved in the ASEAN region (ICDM, 2024). Based on agency theory (AT), gender diversity can reduce conflict between management and shareholders. AT explains that companies have the potential for conflict between shareholders (principals) and management (agents) that usually occurs when management is unable to fulfill debt payment commitments and accompanied by the absence of dividend payments to investors due to financial distress (Khuong et al., 2025; Rizqiyani et al., 2024). The findings of Muien et al. (2024) dan Maier & Yurtoglu (2022) confirm that companies with a high proportion of women on their boards of directors can reduce financial distress.

In addition to gender diversity, the Instituto de Estudios Superiores de la Empresa (IESE) Business School's 2024 survey on boards of directors showed that board competencies developed through education, experience, and training are considered a central factor in board effectiveness in facing strategic challenges and major changes, including market dynamics, ESG issues, and global risks (Sakasai et al., 2024). PwC's 2025 report on board effectiveness also highlighted that investment in board education and development is the number one area that needs to be increased in the next five years (PwC, 2025). From the perspective of upper echelon theory (UET), directors' education forms a cognitive base and reflects experiences that influence how they process information, interpret risks, and determine strategic actions related to the company's sustainability (Sewpersadh, 2022; Yousaf et al., 2020). Research conducted by Wei et al. (2025) on companies listed on the Chinese Stock Exchange shows that higher board education significantly reduces financial distress.

Besides gender and education, experienced leaders will help companies when they face difficulties in paying debts due to financial distress through better cash management and leverage (Ha et al., 2021). From the resource dependence theory (RDT) perspective, the

directors' experience as board members and their familiarity with the company's resources, policies, and operations can be seen based on their tenure (Ali et al., 2022). Willis Towers Watson (WTW) stated that the balance between directors with long and short tenures allows them to benefit from the continuity of their knowledge (WTW, 2025). Maier & Yurtoglu (2022) confirmed that directors with longer tenures are associated with a lower risk of bankruptcy in distressed European companies.

BDC is part of GCG which is included in environment, social, and governance (ESG). One of the key aspects of ESG is the diversity of board members (Institute of Directors, 2024). This demonstrates that ESG is not just an environmental issue, it encompasses a broader scope, including how companies implement good corporate governance. In this regard, the sustainability committee (SC) plays a crucial role in aligning company operations with ESG, managing risks, and enhancing stakeholder trust, which ultimately can improve the company's economic performance (Shokomi & Yahaya, 2024). A survey from ICDM shows that SC take first place as a committee that needs to be improved in the future (ICDM, 2024). The survey also show that sustainability can provide hope for creating better sales and profit opportunities. This demonstrates the importance of having this committee in a company.

SC does not have a strong impact when standing alone, but when combined with GCG, it will produce high sustainability performance (Yang et al., 2024). Female directors and SC can complement each other, where female directors have a perspective on sustainability and SC provides the structure to implement the sustainability agenda (Almulhim & Metwally, 2025). The research results of Najaf et al. (2025) show that SC can improve company performance, especially when led by female directors. A highly educated board of directors also brings a better perspective in reducing potential conflicts and supporting policies related to sustainability (Sari & Setiawan, 2024; Cakti & Aryani, 2023). Abusharbeh et al. (2025) found that the presence of committee related to sustainability such as Environmental Management Team (EMT) and educated board can strengthen sustainability management and improve a company's financial performance through improved ESG and risk management.

In addition, a board with extensive experience together with a competent SC can improve the company's sustainability, which in turn has a positive impact on financial performance through improved risk management, increased transparency, and the development of sustainable innovation (Almaqtari et al., 2024). SC is present as a moderation tool that strengthens the board's discipline in considering long-term factors including financial risks (Tahat & Hassanein, 2024). Schoonjans (2024) found that directors with longer tenures play a role in ensuring the consistency and continuity of ESG policies. Research by Acharya et al. (2026) dan Binesh et al. (2025) shows that companies with high ESG performance have stronger stakeholder relationships, better reputations, and more stable funding access, making them more resilient to liquidity pressures and payment default risks.

This research is a development of a previous study conducted by Alhaddad et al. (2025) with several updates. Previous research examined the influence of female directors on financial distress in Jordan for the period 2010–2021. This research expands the scope to the ASEAN region and examines the current period, 2020–2024. Furthermore, this study adds independent variables of education and tenure, thus including board of director gender diversity (BDG), board of director education (BDE), and board of director tenure (BDT). This study also considers the role of the moderating variable SC, which has not been used in previous studies. Discussion of SC in the relationship between BDC, especially BDG, BDE, and BDT, and financial distress is still limited, so further testing is needed to determine whether it can play a role in overcoming financial distress in ASEAN companies. This study aims to provide empirical evidence regarding the influence of BDG, BDE, and BDT, considering the presence of SC, in reducing financial distress. Therefore, this study is expected to fill the literature gap

and provide insights for companies to anticipate financial distress, make appropriate decisions, and improve financial stability, ultimately achieving better economic sustainability.

Based on phenomena, theories, and previous research, the authors develop the following conceptual framework and hypotheses.

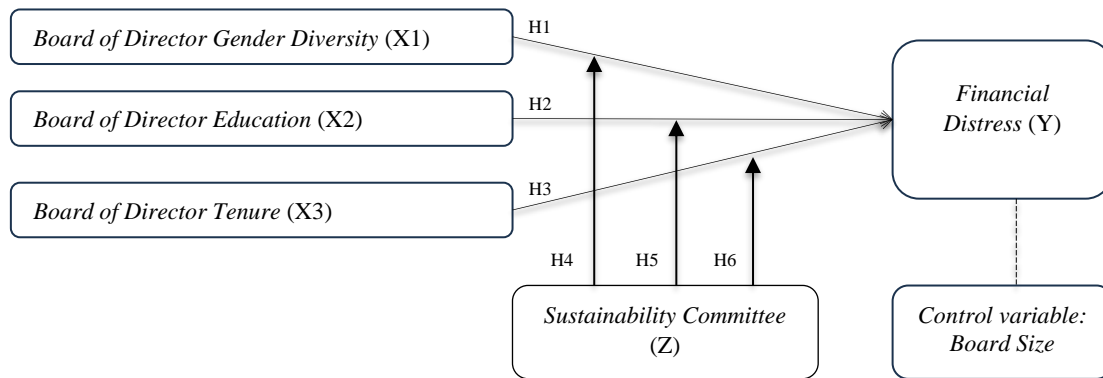


Figure 1. Conceptual Framework

H1 = Board of director gender diversity influences financial distress.

H2 = Board of director education influences financial distress.

H3 = Board of director tenure influences financial distress.

H4 = Sustainability committee moderates the effect of board of director gender diversity on financial distress.

H5 = Sustainability committee moderates the effect of board of director education on financial distress.

H6 = Sustainability committee moderates the effect of board of director tenure on financial distress.

METHOD

This study uses quantitative methods and secondary data sources derived from the Refinitiv database and annual reports obtained from the respective company websites. The research period covers the years 2020–2024, based on the phenomenon, the Covid-19 began to become pandemic and caused a crisis in 2020. Meanwhile, 2024 was chosen as the end point because the data related to research variables were more complete in that year. The population in this study is 5,206 non-financial companies in ASEAN countries.

Based on the purposive sampling results, this study will examine 202 companies consisting of 10 Philippine companies, 15 Indonesian companies, 41 Malaysian companies, 57 companies from Singapore, 74 Thai companies, and 5 companies from Vietnam. Independent variables in this study are Board of Director Gender Diversity (BDG), Board of Director Education (BDE), and Board of Director Tenure (BDT). Dependent variable is Financial Distress (FD) and moderating variable is Sustainability Committee (SC). This study uses Board Size (BS) as control variable to ensure that the number of boards does not interfere with the relationship between the independent and dependent variables. Measurements of each variable can be seen in Table 1.

Table 1. Measurement of Variables

Variables	Measurement	Source
Dependent Variable		
Financial Distress (FD)	Leverage	Mukhtaruddin et al. (2022)
Independent Variables		

Variables	Measurement	Source
Board of Directors Gender Diversity (BDG)	Proportion of female directors divided by total directors	Alhaddad et al. (2025)
Board of Director Education (BDE)	Proportion of directors who have a master's degree or more divided by total directors	Sari & Setiawan (2024)
Board of Director Tenure (BDT)	Average tenure of board of directors	Livnat et al. (2021)
Moderating Variables		
Sustainability Committee (SC)	Dummy variable, 1 if there is SC, 0 if not	Tahat & Hassanein (2024)
Control Variables		
Board Size (BS)	Total company board	Sewpersadh (2022)

Data Analysis Techniques

Data analysis techniques will be carried out using descriptive statistics, panel data regression with Robust Standard Error (RSE), and hypothesis test consisting of F test, t test, and coefficient of determination. RSE serves to ensure the validity of results despite the potential for classical assumptions such as heteroscedasticity to be unmet. This approach has been applied in several previous studies to develop regression models when faced with problems in classical assumption tests (Fitri, 2025; Maradjabesi et al., 2025; Muttaqin, 2025; Yucel et al., 2025; Yusuf & Adio, 2025).

This study uses three regression models to analyze the relationship between independent, dependent, control, and moderating variables. Testing the influence of independent variables on dependent variables with control variables will be explained through Structure 1. Testing of moderating variables or Moderated Regression Analysis (MRA) will be explained through Structure 2 and 3. The determination of panel regression estimation model between Fixed Effect Model (FEM), Common Effect Model (CEM), and Random Effect Model (REM) shows that FEM is the best model for structures 1, 2, and 3. Thus, the three regression models in this study will use FEM with RSE.

The multiple linear regression equation for panel data used in this study is as follows.

$$FD_{it} = \alpha + \beta_1BDG_{it} + \beta_2BDE_{it} + \beta_3BDT_{it} + \beta_4BS_{it} + \epsilon_{it}$$

Information:

- FD = Financial Distress
- α = Constant
- β = Coefficient of each variable
- BDG = Board of Directors Gender Diversity
- BDE = Board of Director Education
- BDT = Board of Director Tenure
- BS = Board Size
- ϵ = Error

The following is a regression model used to test whether SC can be a moderator between independent and dependent variables using MRA.

$$FD_{it} = \alpha + \beta_1BDG_{it} + \beta_2BDE_{it} + \beta_3BDT_{it} + \epsilon_{it} \dots\dots\dots (1)$$

$$FD_{it} = \alpha + \beta_1BDG_{it} + \beta_2BDE_{it} + \beta_3BDT_{it} + \beta_4SC_{it} + \beta_5(BDG \times SC)_{it} + \beta_6(BDE \times SC)_{it} + \beta_7(BDT \times SC)_{it} + \epsilon_{it} \dots\dots\dots (2)$$

Information:

- BDG×SC = Interaction between board of directors gender diversity and sustainability committee
- BDE×SC = Interaction between board of director education and the sustainability committee

BDT×SC = Interaction between board of director tenure and sustainability committee

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Descriptive statistics were used to describe data characteristics of each variable through the mean, maximum, minimum, and standard deviation. The results of the descriptive statistics can be seen in Table 2.

Table 2. Descriptive Statistics

	FD	BDG	BDE	BDT	BS	SC
Mean	0.303386	24.47067	0.577714	8.402968	10.19604	0.872277
Maximum	0.776100	66.66670	1,000,000	25.44440	23,000,000	1,000,000
Minimum	0.000300	6.250000	0.100000	0.812500	4,000,000	0.000000
Std. Dev.	0.162912	11.15556	0.227030	4.450695	2.875201	0.333946
Observations	1010	1010	1010	1010	1010	1010

Source: Data Processing Results (2026)

The maximum value of FD as dependent variable (Y) is 0.7761 and the minimum value is 0.0003. This means that the highest value of LEV as a measure of FD is 0.7761 and the lowest is 0.0003. The higher the LEV value, the higher the financial distress in the company. The average value of FD is 0.303386 with standard deviation of 0.162912. Standard deviation indicates that distribution of FD data is within the range of ±0.162912 from the average. A lower standard deviation indicates a closer distance to the average value, meaning that data variation between companies is relatively low. BDG has maximum value of 66.6667 and minimum of 6.25. The results show that there are companies with 66.67% of their board of directors filled by women and the fewest are companies with a proportion of female directors of 6.25%. The average BDG value is 24.47067 and the standard deviation is 11.15556. This means that average number of female board directors in the company is 24.47%, with data variation of ±11.15556 from the average.

The maximum value of BDE is 1 and the minimum is 0.1. This means that there are companies with 100% of their board of directors having a master's degree or higher, and the lowest is a company with value of 10%. The average value of BDE is 0.577714 with a standard deviation of 0.22703. The maximum value of the BDT is 25.4444 and the minimum is 0.8125. This means that there are companies with directors average tenure of 25.4 years and there are companies with directors average tenure of 8 months. BDT has standard deviation of 4.450695 and average value of 8.402968. BS has maximum value of 23 and minimum of 4. There are companies that have board size of 23 people and minimum of 4 people. The average value of BS is 10.19604 and its standard deviation is 2.875201. SC is a dummy variable, so its maximum value is 1 and its minimum is 0. However, SC has average value of 0.872277, meaning that approximately 87.23% of companies have sustainability committee. SC has standard deviation of 0.333946 which indicates that data distribution is relatively small because the majority of observations have a value of 1.

Panel Data Regression Analysis

The first regression equation shows the influence of BDG, BDE, and BDT on FD using the control variable BS. The regression results in the first equation can be seen in Table 3.

Table 3. FEM Regression Results of Structure 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.180233	0.037133	4.853726	0.0083
BDG	0.000533	0.000338	1.578299	0.1896

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BDE	0.051461	0.041228	1.248209	0.2800
BDT	0.006854	0.001627	4.211729	0.0136
BS	0.002242	0.002531	0.885844	0.4257
R-squared				0.907010
Adjusted R-squared				0.883300
F-statistic				38.25403
Prob(F-statistic)				0.000000

Source: Data Processing Results (2026)

The regression model for structure 1 is as follows.

$$FD = 0,180233 + 0,000533BDG + 0,051461BDE + 0,006854BDT + 0,002242BS + \epsilon$$

Table 3 shows the Prob (F-statistic) value below 0.05, which is $0.000000 < 0.05$. Thus, the regression model structur 1 is feasible and it can be said that all independent variables can affect FD. The Adjusted R-squared value of 0.8833 means that BDG, BDE, BDT, and BS together affect FD by 88.33% and the remaining 11.67% is influenced by other factors. The t-test results show that BDG has regression coefficient of 0.000533 and probability value $0.1896 > 0.05$. This indicates that BDG does not have a significant effect on FD, so H1 is rejected. BDE has regression coefficient of 0.051461 with probability $0.28 > 0.05$. Thus, it can be concluded that BDE does not have a significant effect on FD, so H2 is also rejected. BDT has regression coefficient of 0.006854 with probability value $0.0136 > 0.05$. Thus, it can be concluded that BDT has a significant positive effect on FD, so H3 is accepted.

BS has regression coefficient of 0.002242 with probability value $0.4257 > 0.05$. Thus, it can be concluded that BS has no effect on FD. This indicates that board size does not have a strong contribution in explaining the FD conditions in non-financial companies in ASEAN. The control variables in this study only serve to control the possible influence of other factors on the relationship between BDG, BDE, BDT and FD. This can also indicate that board of director characteristics as the main variable have a more dominant role in explaining FD.

Moderated Regression Analysis (MRA) Testing

Tables 4 and 5 produced a regression model that was used to see whether SC could be a moderator in this study.

Table 4. FEM Regression Results of Structure 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.203532	0.029095	6.995535	0.0022
BDG	0.000525	0.000334	1.569422	0.1916
BDE	0.053909	0.039769	1.355565	0.2467
BDT	0.006656	0.001597	4.168173	0.0141
R-squared				0.906901
Adjusted R-squared				0.883309
F-statistic				38.43991
Prob(F-statistic)				0.000000

Source: Data Processing Results (2026)

Based on Table 4, the regression model for structure 2 is as follows.

$$FD = 0,203532 + 0,000525BDG + 0,053909BDE + 0,006656BDT + \epsilon$$

The constant value is 0.203532 indicates that if BDG, BDE, and BDT are constant or 0, FD increases by 0.203532. BDG has regression coefficient of 0.000525 and probability value $0.1916 > 0.05$, which means BDG has no significant effect on FD. BDE has regression coefficient of 0.053909 and probability value of 0.2467 which is greater than 0.05, indicating that there is no significant effect on FD. BDT has regression coefficient of 0.006656 and

probability value $0.0141 < 0.05$. This means that there is a significant positive effect of the BDT on FD.

Table 5 FEM Regression Results of Structure 3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.191331	0.033510	5.709675	0.0047
BDG	0.001234	0.000714	1.727750	0.1591
BDE	0.090173	0.047505	1.898172	0.1305
BDT	0.005813	0.001283	4.530517	0.0106
SC	0.010304	0.021156	0.487040	0.6517
BDG_SC	-0.000751	0.000548	-1.369863	0.2426
BDE_SC	-0.044890	0.016901	-2.656096	*0.0566
BDT_SC	0.001416	0.001484	0.954568	0.3939
R-squared				0.908082
Adjusted R-squared				0.884213
F-statistic				38.04475
Prob(F-statistic)				0.000000

*Significance level $\alpha = 0.1$

Source: Data Processing Results (2026)

Table 5 shows the regression results when the SC variable is entered into the model to determine its moderating role in the relationship between BDG, BDE, BDT, and FD. The regression model for structure 3 is as follows.

$$FD = 0,191331 + 0,001234BDG + 0,090173BDE + 0,005813BDT + 0,010304SC - 0,000751BDGSC - 0,044890BDESC + 0,001416BDTSC + \epsilon$$

This regression model can be said to be feasible because it has Prob. (F-statistic) value below 0.05, namely $0.0000 < 0.05$. BDG, BDE, BDT, and SC together influence FD by 88.42% as seen from Adjusted R-squared which is 0.884213. SC has regression coefficient of 0.010304 with probability value $0.6517 > 0.05$. This indicates that SC does not have a significant effect on FD. The interaction between BDG and SC has regression coefficient of -0.000751 and probability value $0.2426 > 0.05$. These results indicate that SC cannot moderate the effect of BDG on FD, so that H4 is rejected. Based on the type of moderation, in this relationship SC is not a moderating variable because it does not directly affect the dependent variable, and its interaction with the independent variable has no effect on the dependent variable.

The interaction between BDE and SC has regression coefficient of -0.04489 with probability value of 0.0566. These results indicate that the interaction of BDE and SC has a significant negative effect on FD at the 0.1 significance level, because the probability value of $0.0566 < 0.1$, which means that H5 is accepted. In this relationship, SC acts as a pure moderator because it only has an effect when interacting with its independent variable. The negative coefficient indicates that SC weakens the positive effect of BDE on FD. This means that when there is SC in a company, the ability of BDE to increase FD is smaller. In other words, BDE will decrease FD when a company has SC. The interaction between BDT and SC has regression coefficient of 0.001416 and probability value $0.3939 > 0.05$. These results indicate that SC cannot moderate the effect of BDT on FD so that H6 is rejected. In this relationship, SC is also not a moderating variable because it does not directly affect the dependent variable, and its interaction with the independent variable has no effect on the dependent variable.

Discussion

The Influence of Board of Director Gender Diversity on Financial Distress

The results of regression analysis indicate that board of director gender diversity (BDG) does not significantly influence financial distress. This indicates that BDG has not been able to directly influence the financial distress of companies in the ASEAN region. Based on observations, the number of women on board of directors in many companies is still relatively small compared to men. These results are in line with the findings of Sari & Setiawan (2024) who showed that gender diversity does not significantly influence financial distress because the number of women holding board director positions is still low. The relatively small proportion means that women on the board do not have sufficient power to significantly influence the company's strategic decisions.

The role of women on boards of directors can still be influenced by prevailing social norms, potentially limiting their involvement in the decision-making process (Purwaningsih et al., 2025). This can be seen from the dominance of men occupying board positions, who are believed to be more capable of controlling the company, resulting in some companies having only one or at most three woman directors (Sari & Setiawan, 2024). The results of this study are in line with Khuong et al. (2025), Purwaningsih et al. (2025), Khan et al. (2024), Siagian (2024), dan Nuswantara et al. (2023) which stated that there was no significant effect of the proportion of woman directors on financial distress. The results also indicate a positive relationship between BDG and financial distress, as in the studies of Abdulwahab et al. (2025) dan Mohammed et al. (2024), which implies that gender diversity in the board of directors tends to increase financial distress.

The Influence of Board of Director Education on Financial Distress

The regression analysis results indicate that board of director education (BDE) does not significantly influence financial distress. The results of this study are inconsistent with previous theories. However, they support the findings of Farooq et al. (2025), which showed that director education level has no effect on financial distress because higher education does not always guarantee the ability to control managerial behavior in assessing strategic decisions and aligning executive pay with company performance. This can create a conflict of interest that is not in line with AT.

Mahardini & Framita (2022) found similar results, indicating that education level cannot reduce financial distress due to a lack of experience in dealing with crises. A higher educational degree can enrich intellectual insight, but it does not guarantee that all board members have adequate experience in dealing with a company's economic crisis. A strong educational background can support improved corporate decision-making, but financial distress can also be influenced by various external factors, such as changes in consumer demand, government policies, and fluctuations in raw material prices (Oktaviani et al., 2023). Therefore, an educational background that is not aligned with the company's business field can prevent a company from sustaining its operations (Sari & Setiawan, 2024).

The Influence of Board of Director Tenure on Financial Distress

The results of the regression analysis indicate that board of director tenure (BDT) has a positive and significant effect on financial distress. This indicates that the longer board of directors average tenure, the greater company is likely to experience financial distress. Excessively long tenure can create a power-hungry effect, reduce supervisory independence, and innovation in decision-making, which can weaken the company's performance and financial management, thereby increasing the likelihood of financial distress (Tahir et al., 2023). Zeng et al. (2025) found that longer director tenure can increase opportunistic management behavior such as corporate misconduct.

The results of this study are in line with Abdulwahab et al. (2025), Ha et al. (2021), dan Tahir et al. (2023) which found that tenure had a significant positive effect on financial distress. This study confirms that excessively long tenure on the board of directors can lead to opportunistic behavior due to the trust gained from various parties, weakening oversight, internal control, and analytical capabilities, and increasing the risk of making decisions, especially regarding debt financing, which can increase financial distress.

Moderation of Sustainability Committee in the Influence of Board of Director Gender Diversity on Financial Distress

The regression analysis result shows that SC does not moderate the effect of BDT on financial distress. This indicates that although SC is tasked with ensuring the company to implement GCG, which is part of ESG and is a much-needed committee, SC is not yet strong enough in maximizing gender diversity to reduce financial distress. Despite gender diversity being a key aspect of ESG (Institute of Directors, 2024), its implementation is directed at the company's reputation, regulatory compliance, and stakeholder relations, so it does not directly influence strategic decisions related to the company's financial condition. This is in line with research from Metwally et al. (2025) which shows that ESG practices affect firm value through SC.

The results of this study are in line with the findings from Almaqtari et al. (2024) which shows that gender diversity does not always have a direct impact on financial results because its influence is highly dependent on the GCG context. Purwanti et al. (2023) also found that financial factors such as profitability and capital structure had a more significant influence on financial distress than GCG variables such as gender diversity. Therefore, the presence of SC does not always strengthen or weaken the relationship between gender diversity and financial distress.

Moderation of Sustainability Committee in the Influence of Board of Director Education on Financial Distress

The results of regression analysis indicate that SC can moderate the effect of BDE on financial distress. The regression coefficient of interaction between BDE and SC is negative, which means SC can weaken the positive effect of BDE on financial distress. Thus, companies with SC can help board directors with higher education in reducing financial distress. This supports the statement from Yang et al. (2024) where SC will have a stronger impact on performance when combined with GCG than when standing alone. This finding is in line with research from Almulhim & Metwally (2025) that demonstrates the presence of SC can enhance the positive impact of environmental, social, and governance practices on financial performance. The presence of an SC focuses on the oversight and implementation of ESG policies within the company, thus assisting board of directors in translating their competencies into corporate strategy.

The results of this study also support AT, which states that board of directors with a high level of education are able to strengthen the supervision of sustainability performance which can encourage the increasing of financial performance while minimizing the potential conflict with stakeholders through SC Abusharbeh et al. (2025), Cakti & Aryani (2023), Najaf et al. (2025), dan Sari & Setiawan (2024). Abusharbeh et al. (2025) found that sustainability committees and board of directors with higher education can improve financial performance through improved ESG practices and more effective risk management. Najaf et al. (2025) also shows that companies with highly educated board of directors, such as PhD and SC, have higher financial performance. Strong financial performance indicates a company's financial health and reduces the risk of financial distress (Saadaoui et al., 2025).

Moderation of Sustainability Committee in the Influence of Board of Director Tenure on Financial Distress

The results of the regression analysis show that SC does not moderate the effect of BDT on financial distress. This indicates that although the SC plays a role in ensuring the continuity of sustainability policies so that companies gain a good reputation and more stable access to funding, the SC cannot be a strong forum for experienced board directors to hold office to reduce financial distress. The results of this study are inconsistent with AT, which states that the SC can be a place for experienced board directors to improve company performance and reduce risk. The tenure of directors is more reflective of individual's experience and understanding of the company's operations and sustainability. The existence of SC also does not always have a direct impact on performance or financial stability, as some companies establish SC as a symbolic mechanism to increase corporate legitimacy in the eyes of stakeholders, but does not always produce tangible results related to sustainability risk management (Orazalin et al., 2023).

The results of this study are in line with research Ardianto et al. (2024) which shows that greater diversity in tenure actually widens the gap in decision-making effectiveness, particularly regarding the management of a company's internal resources, including sustainability policies. Bella & Pratama (2025) also found that the length of a director's tenure does not automatically improve the quality of a company's sustainability policy, as the more crucial factor is the director's expertise and competence in understanding ESG issues. Therefore, tenure alone is not enough to lift a company out of financial distress, even with SC in place. Understanding and expertise in determining sustainability policies are essential for maintaining the company's financial stability.

CONCLUSION

Based on the results, BDG has no effect on FD in non-financial companies in the ASEAN region. These results indicate that men still dominate company leadership, thus significantly limiting their potential involvement in the strategic decision-making process. BDE also has the same result, which has no effect on FD. High education can provide board of director intellectual insight, but this is not enough to reduce the risk of FD because not all directors have the expertise to deal with crises or educational backgrounds that are not aligned with the business field. Conversely, BDT has a significant positive effect on FD. Longer tenure can increase opportunistic behavior, weaken internal supervision and control, and neglect in-depth analysis of the company's finances. The study also showed that SC could not moderate the influence of BDG and BDT on FD. Nevertheless, SC can moderate the influence of BDE on FD. SC can support the intellectual insight from board of directors to utilize sustainability mechanisms to reduce FD.

There is a limitation that cannot be avoided by the authors. The limitation found based on the test results that are related to the control variable. This study uses regression model 1 to test the effect of independent variables on dependent variable, using BS as control variable. Regression model 2 in the MRA approach shows the regression results without including BS. The interpretation of the results shows similar findings for each independent variable influence in both models. This means that BS has no impact in controlling the relationship between the main variables in this study. Future researchers are advised to use other variables to control the relationship between independent and dependent variables. Factors such as profitability and liquidity can be considered because these factors are directly related to the company's finances and therefore have the potential to influence them in the same research context.

Based on the research findings, several recommendations can be considered by non-financial companies in the ASEAN region. Considering the research findings showing a significant positive effect of BDT on FD, companies should maintain average board tenure at

a balanced or moderate level, as this could weaken internal controls. SC is also an essential component for companies. Although it does not directly overcome the risk of financial distress, it can assist a highly knowledgeable board of directors in optimizing sustainability to improve company performance. These steps are expected to strengthen company's defenses in facing a crisis and FD.

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