

## THE INFLUENCE OF ESG CONTROVERSIES ON COST OF DEBT WITH THE MODERATING ROLE OF ESG PERFORMANCE AND CORPORATE GOVERNANCE IN ASEAN-5

Lia Mustikawati<sup>1</sup>, Sylvia Veronica Nalurita Purnama Siregar<sup>2</sup>

Universitas Indonesia, Indonesia

Email: [lia.mustikawati32@office.ui.ac.id](mailto:lia.mustikawati32@office.ui.ac.id), [sylvia.veronica@ui.ac.id](mailto:sylvia.veronica@ui.ac.id)

### ABSTRACT

*This study investigates the impact of ESG (Environmental, Social, and Governance) controversies on the cost of debt, with a focus on the moderating roles of ESG performance, board independence, and board gender diversity. Using a sample of non-financial public companies listed on the ASEAN-5 stock exchanges from 2019 to 2023, the research explores how ESG controversies influence borrowing costs and the potential moderating effects of corporate governance mechanisms. The findings reveal that ESG controversies lead to an increase in the cost of debt, confirming the negative financial implications of such controversies. Among the corporate governance variables, only board independence is found to mitigate the relationship between ESG controversies and the cost of debt. Additionally, the results from robustness tests indicate that both board independence and gender diversity help lessen the effect of ESG controversies on debt costs. However, the moderating effect of ESG performance on the relationship between ESG controversy and the cost of debt is not supported. These findings suggest that while ESG controversies are costly for firms, strong governance practices—particularly in terms of board independence and diversity—can help reduce these financial penalties. The study contributes to the literature on corporate governance and ESG by highlighting the role of board structures in mitigating the financial costs of ESG risks.*

**KEYWORDS** ESG, ESG controversy, cost of debt, corporate governance, board independence, gender diversity, ASEAN-5.



*This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International*

### INTRODUCTION

The increase in global awareness of environmental, social, and corporate governance issues has made the implementation of *Environmental, Social, and Governance (ESG)* principles a necessity in business strategies. International regulations and standards, such as the *UN Global Compact* and the *Global Reporting Initiative (GRI)*, encourage companies to operate responsibly in terms of environmental, social, and governance aspects. The importance of disclosing the board's responsibilities related to sustainability issues and implementing appropriate *ESG* structures is essential to ensure effective oversight and accountability (Adebayo & Ackers, 2024; Budita & Fidiana, 2023; Husted & de Sousa-Filho, 2019).

The implementation of *ESG* in Asia has shown rapid growth, although it is still in its early stages compared to Europe and North America. Within *ASEAN*, the adoption of *ESG* has become increasingly important due to domestic regulatory pressures, integration with international financial systems, and global supply chain demands. Singapore, Indonesia, Thailand, and Vietnam are at the forefront of initiatives in sustainable finance, electric vehicles, and renewable energy. However, developing countries in *ASEAN* still face significant challenges, particularly in raising awareness and building capacity for *ESG* practices. The *ASEAN-5* (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) have been

developing *ESG* regulatory frameworks, such as green taxonomies and sustainability reporting obligations for listed companies. Singapore, for example, has mandated sustainability reporting since 2017, while Indonesia launched its *Green Taxonomy* in 2022. In South Korea, *ESG* is embedded in national strategies through programs like the *Korea Emission Trading System (K-ETS)* and support mechanisms for small and medium-sized enterprises (*ASEAN-Korea Centre*, 2023). South Korea has also developed a green taxonomy and introduced a sustainability governance code to support its transition to a low-carbon economy (*United Nations Development Programme*, 2024).

*ASEAN* is actively collaborating with South Korea on *ESG* implementation (*ASEAN-Korea Centre*, 2023). This cooperation includes initiatives to enhance sustainability, mitigate climate change, and strengthen capacity-building in *ESG*. One such initiative is the *Korea-ASEAN Carbon Dialogue* program, which focuses on carbon emission reduction and the transition to green energy. South Korea also contributes technical support and financing for sustainable projects in *ASEAN*, including renewable energy development and the improvement of governance standards aligned with *ESG* principles. This collaboration aims to accelerate the region's transition to a low-carbon economy while ensuring social inclusion and sound governance across all economic sectors.

The *International Sustainability Standards Board (ISSB)* released the *International Financial Reporting Standards (IFRS)* S1 and S2 on June 26, 2023. These standards aim to provide a consistent global framework for disclosing sustainability- and climate-related financial information. In adopting these standards, companies are required to identify, disclose, and assess various sustainability issues that may impact performance. Companies must comprehensively and accurately identify sustainability risks and opportunities to support effective monitoring and reporting. These standards help meet the information needs of sustainable investors, who are increasingly aware of the long-term impact of *ESG* factors on company performance, thereby encouraging sustainable investment.

Gracia and Siregar (2021) found that in *ASEAN* countries, sustainability policies can reduce a firm's cost of debt. While lenders take into account a company's sustainability practices through disclosures when assessing creditworthiness, sustainability performance scores are often not considered a critical factor. This may be because important information is more visible in sustainability disclosures than in performance metrics.

Research by Malik and Kashiramka (2024) demonstrates that higher *ESG* scores can reduce risk perceptions and lower corporate debt costs. This supports stricter *ESG* disclosure policies and enhances investors' understanding of the impact of *ESG* performance on investment risk and returns. In the context of global crises such as the COVID-19 pandemic, the study also indicates that companies with strong *ESG* practices tend to be more resilient to economic shocks and experience lower borrowing costs.

The influence of *ESG* strategies and practices on corporate financial performance has become a key focus in both academic and business discussions. However, the actual implementation of *ESG*, especially in Asian countries, remains limited. Based on this context, the author is interested in examining the influence of *ESG* and governance controversies, using a sample of public companies in the *ASEAN-5*. These countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) were selected because they reflect economic diversity,

different stages of development, and varied *ESG* regulatory environments, offering a rich context for analyzing *ESG* practices. In many developing countries, *ESG* disclosure is still voluntary, unlike in some developed countries where it is mandated by regulation. As regional leaders in *ESG* adoption and as integral parts of global supply chains, these countries are under strong pressure to meet international *ESG* standards. Moreover, as a major investment hub in Southeast Asia, research on *ASEAN-5* offers valuable insights for regional and global sustainability strategies.

Unlike prior studies that have primarily focused on *ESG* implementation, this study explores the impact of *ESG* controversies on the cost of debt for public companies in *ASEAN-5*, as well as the moderating roles of *ESG* performance and corporate governance. Research on *ESG* controversies has more commonly examined their relationship with the cost of equity (Hampl et al., 2024; La Rosa & Bernini, 2022). However, research into the link between *ESG* controversies and the cost of debt is still limited, despite debt being a critical component of corporate capital structure. This study measures board gender diversity using the *Blau Index*, which captures inequality and distribution between categories (women and men). Most previous studies have used a simple ratio, such as the percentage of women on the board of directors (Elamer & Boulhaga, 2024). This research also incorporates control variables, including the motivation index for achievement (formerly referred to as the masculinity index), and a country dummy variable.

This study aims to provide comprehensive empirical evidence on how *ESG* controversies affect the cost of debt and their implications for long-term sustainability and corporate social responsibility. The results are expected to enrich existing literature and offer empirical guidance for regulators, organizations, and investors in understanding the financial impacts of *ESG* controversies.

## RESEARCH METHOD

This research was conducted using a quantitative research design. The study employed secondary data obtained from *Refinitiv Eikon*, as well as financial statements and annual reports published by public companies. The companies examined are those listed on the Indonesia Stock Exchange, the Malaysia Stock Exchange, the Thailand Stock Exchange, the Philippine Stock Exchange, and the Singapore Stock Exchange. The research period spans from 2019 to 2023, as *ESG*-related reporting began to be implemented across the *ASEAN-5* in 2019. The selection of public companies as the research sample was based on the availability of both financial and non-financial data, such as *ESG* scores, *ESG* controversy scores, board independence levels, and board gender diversity—data which are accessible through *Refinitiv Eikon*, as well as through the companies' financial and annual reports published on their official websites.

The study model refers to the framework developed by Elamer and Boulhaga (2024) and La Rosa and Bernini (2022), with the cost of debt serving as the dependent variable. The control variables, *MAS* nation and dummy country, are regressed independently due to their high correlation, which leads to the exclusion of the dummy country variable when both are included in the same regression model.

Research models 3.1 and 3.2 are used to evaluate the impact of *ESG* controversies on the cost of debt (*HI*). Subsequently, models 3.3 and 3.4 are applied to assess the influence of *ESG*

controversies on the company's cost of debt, taking into account the moderating effects of *ESG* performance (*H2*), board independence (*H3*), and gender diversity (*H4*). The research model employed in this study is presented below.

$$COD_{it} = \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 BODIND_{it} + \beta_4 BODGEND_{it} + \beta_5 BODSIZE_{it} + \beta_6 FIRMSIZE_{it} + \beta_7 ROA_{it} + \beta_8 LIQ_{it} + \beta_9 LEV_{it} + \beta_{10} ICR_{it} + COVIDFE + COUNTRYFE + \varepsilon_{it} \quad (3.1)$$

$$COD_{it} = \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 BODIND_{it} + \beta_4 BODGEND_{it} + \beta_5 BODSIZE_{it} + \beta_6 FIRMSIZE_{it} + \beta_7 ROA_{it} + \beta_8 LIQ_{it} + \beta_9 LEV_{it} + \beta_{10} ICR_{it} + \beta_{11} MAS_{it} + COVIDFE + \varepsilon_{it} \quad (3.2)$$

$$COD_{it} = \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 ESGCONT_{it} \times ESG_{it} + \beta_4 BODIND_{it} + \beta_5 ESGCONT_{it} \times BODIND_{it} + \beta_6 BODGEND_{it} + \beta_7 ESGCONT_{it} \times BODGEND_{it} + \beta_8 BODSIZE_{it} + \beta_9 FIRMSIZE_{it} + \beta_{10} LIQ_{it} + \beta_{11} LEV_{it} + \beta_{12} ICR_{it} + COVIDFE + COUNTRYFE + \varepsilon_{it} \quad (3.3)$$

$$COD_{it} = \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 ESGCONT_{it} \times ESG_{it} + \beta_4 BODIND_{it} + \beta_5 ESGCONT_{it} \times BODIND_{it} + \beta_6 BODGEND_{it} + \beta_7 ESGCONT_{it} \times BODGEND_{it} + \beta_8 BODSIZE_{it} + \beta_9 FIRMSIZE_{it} + \beta_{10} LIQ_{it} + \beta_{11} LEV_{it} + \beta_{12} ICR_{it} + \beta_{13} MAS_{it} + COVIDFE + \varepsilon_{it} \quad (3.4)$$

The definitions and calculations of the variables in the research model above are explained in Table 1.

**Table 1. Definition of Variables**

Code	Definition
<b>Independent Variables</b>	
<i>ESGCONT</i>	The contentious ESG Score, which runs from 0 to 100, is derived from Refinitiv Eikon (Elamer & Boulhaga, 2024). To enhance data interpretation and differentiate it from the ESG score, the ESG controversy score is negated and divided by 100. A higher ESG controversy score indicates a larger level of ESG controversy faced by the company.
<b>Dependent Variables</b>	
<i>COD</i>	The cost of debt in year t is the proportion of a company's interest expense to its average debt (Malik & Kashiramka, 2024).
<b>Moderation Variables</b>	
<i>ESG</i>	The ESG performance is quantified by an ESG score derived from Refinitiv Eikon (Elamer & Boulhaga, 2024). The score runs from 0 to 100; in this study, the ESG score is divided by 100 to facilitate calculations. A higher ESG score indicates superior ESG performance by the company.
<i>BODIND</i>	Board independence is defined as the ratio of independent board members to the total number of board members (Elamer & Boulhaga, 2024).
<i>BODGEND</i>	Gender diversity is quantified by the Blau Index, wherein p denotes the proportion of entities inside a category or the percentage of each gender (male and female) on the board, and n signifies the number of categories or board members (Campbell & Mínguez-Vera, 2008; Issa & Fang, 2019).
<b>Control Variables</b>	
<i>BODSIZE</i>	Board size, total board (Elamer & Boulhaga, 2024).
<i>FIRMSIZE</i>	Company size, natural logarithm of total assets (Elamer & Boulhaga, 2024).

Code	Definition
<i>ROA</i>	Return on assets, the ratio of earnings before interest and taxes to total assets (Elamer & Boulhaga, 2024).
<i>LEV</i>	Leverage, the ratio of total liabilities to total assets (Malik & Kashiramka, 2024).
<i>LIQ</i>	Liquidity, current assets divided by current liabilities (Elamer & Boulhaga, 2024).
<i>ICR</i>	Interest coverage ratio, operating profit divided by interest expense (Malik & Kashiramka, 2024).
<i>MAS</i>	The Index of Motivation towards Achievement and Success is one of the six dimensions in Hofstede's (2011) organizational culture model that describes the distribution of roles between men and women (Kabir et al., 2023). This index was previously known as the masculinity index. The MAS Index ranges from 0 to 100 based on the study by The Culture Factor Group and Mediacom as of October 16, 2023 ( <a href="https://www.theculturefactor.com/country-comparison-tool">https://www.theculturefactor.com/country-comparison-tool</a> ). In this study, the scores are divided by 100 to simplify the calculations. A high score indicates a focus on competition and achievement, where success is measured based on who is the best (decisive). Low scores prioritize quality of life and concern for others (consensus-oriented), with success measured by well-being.
<i>COVID</i>	The time dummy variable takes the value of 1 for the year 2020, which is when the Covid-19 pandemic occurred, while the value is 0 for years other than 2020 (Malik & Kashiramka, 2024).
<i>COUNTRY</i>	Country dummy variable, with Indonesia as the reference category.

## RESULT AND DISCUSSION

### Results of the Classic Assumption Test

The normality test was conducted using *Skewness* and *Kurtosis* to determine whether the residuals of the regression model follow a normal distribution. The results show that for the four research models, the  $Prob > \chi^2$  value is 0.0000, indicating that the residuals are not normally distributed. However, in accordance with the *Central Limit Theorem (CLT)*, if the sample size is sufficiently large (commonly  $n > 30$  as a rule of thumb), the sample mean distribution is considered normal even if the population distribution is not (Gujarati, 2009; Wooldridge, 2016).

Multicollinearity arises when there is a strong correlation among the independent variables in the analytical model. To avoid multicollinearity, the *Variance Inflation Factor (VIF)* value must be less than 10. Research models 3.1 and 3.2 do not exhibit multicollinearity, while models 3.3 and 3.4 do, requiring data treatment using *z-score* transformation via *STATA*.

To detect heteroscedasticity, the  $Prob > \chi^2$  value is observed; if the value is above 0.05, then there is no heteroscedasticity problem. All models in this study display heteroscedasticity, indicated by  $Prob > \chi^2 = 0.0000$ . Therefore, robust standard errors will be used in the regression process.

All four models also exhibit autocorrelation problems, as evidenced by  $Prob > F = 0.0000$ , which is below the 0.05 threshold. Accordingly, the robust standard errors method will be employed in regression to address autocorrelation.

The use of the *Random Effects Model (REM)* in this study is based on theoretical justification and the characteristics of the panel data. *REM* was selected because it is designed



to handle variation between individual units (such as firms), which are assumed to be random and uncorrelated with the independent variables. The sampled companies are regarded as random representations of the broader population, thus justifying the treatment of individual effects as random (Baltagi, 2008). Furthermore, *REM* is more efficient than the *Fixed Effects Model (FEM)* in panel data contexts with many cross-sectional units and relatively short time spans (Greene, 2012).

The inclusion of dummy variables as controls in the *REM* model does not pose a problem, as they can account for variations caused by specific categorical factors, such as countries, time periods, or unique events (e.g., the *COVID-19* pandemic), without violating the underlying assumptions of *REM* (Wooldridge, 2010). These dummy variables enhance the model by explaining a portion of the unobserved variance, while *REM* continues to account for random effects. Although *REM* does not inherently correct for heteroscedasticity or autocorrelation, these issues can be addressed by applying robust standard errors, ensuring the validity of the estimation results (Greene, 2012).

### Analysis of the Relationship Variables to Cost of Debt

Descriptive statistical analysis was conducted to characterize the study's dataset (Table 2). The average *ESG* controversy score (*ESGCONT*) of -0.963 suggests that most non-financial public firms in the *ASEAN-5* experience minimal *ESG*-related disputes, with the highest score recorded at -0.18. The mean *ESG* performance score is 0.559, reflecting significant variability in the implementation of *ESG* policies (min = 0.031; max = 0.917).

The average cost of debt (*COD*) is 4%, ranging from a minimum of 0.0013% to a maximum of 8.7%. The average level of board independence (*BODIND*) in non-financial public companies in the *ASEAN-5* is 49.4%, with considerable fluctuation due to differences in governance regulations across countries. The average gender diversity (*BODGEND*) on corporate boards is 26.9%, with some companies showing zero female representation, highlighting ongoing challenges in achieving gender balance.

The average board size (*BODSIZE*) is 10 members, with notable variability indicating adjustments based on supervision needs and operational complexity. The average firm size (*FIRMSIZE*), measured by total assets, varies significantly, encompassing both very large and small enterprises. The mean return on assets (*ROA*) is 4.8%, although several firms report losses, reflecting profitability challenges.

The average liquidity (*LIQ*) ratio is 1.667, indicating a generally strong capacity to meet short-term obligations; however, some companies exhibit liquidity risk (min = 0.045). The average leverage (*LEV*) is 49.6%, showing wide disparities between firms that are heavily debt-financed and those with low debt levels. The average interest coverage ratio (*ICR*) is 10.023, suggesting that most companies are capable of meeting interest obligations through operational profits, although high interest costs remain a challenge for some.

Finally, the *Motivation towards Accomplishment and Success (MAS)* Index shows that the *ASEAN-5* countries maintain a balance between individual achievement orientation and social solidarity (average = 0.454), with Thailand emphasizing social welfare and the Philippines prioritizing personal achievement.

**Table 2. Descriptive Statistics of Research Variables**

<i>Variable</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. dev.</i>	<i>Min</i>	<i>Max</i>
<i>ESGCONT</i>	895	-0,963	0,128	-1,000	-0,180
<i>TQ</i>	895	1,486	0,755	0,305	3,084
<i>COD</i>	895	0,040	0,021	0,000013	0,087
<i>ESG</i>	895	0,559	0,168	0,031	0,917
<i>BODIND</i>	895	0,494	0,151	0,063	0,938
<i>BODGEND</i>	895	0,269	0,155	0,000	0,500
<i>BODSIZE</i>	895	9,752	3,284	3,000	21,000
<i>FIRMSIZE</i>	895	20,721	1,301	16,280	24,261
<i>FIRMSIZE*</i>	895	7.805.996.527	10.787.951.769	92.784.754	100.741.248.802
<i>ROA</i>	895	0,048	0,049	-0,063	0,154
<i>LIQ</i>	895	1,667	1,035	0,045	4,113
<i>LEV</i>	895	0,496	0,183	0,002	1,007
<i>ICR</i>	895	10,023	11,969	-17,103	34,231
<i>MAS</i>	895	0,454	0,086	0,340	0,640

Note: The research sample includes observations of 895 firm-years during the period from 2019 to 2023. Data on the variables *COD*, *ROA*, *LIQ*, *LEV*, and *ICR* have been winsorized. The \* symbol on the *FIRMSIZE* variable indicates that the figures are presented in USD. Table 3.1 explains the definition, calculation, source, and reference for the use of all variables.

Source: Stata reprocessed results (2024)

Table 3 displays the regression outcomes for models 3.1, 3.2, 3.3, and 3.4. The *R-squared* value of 0.38 in model 3.1 indicates that 38% of the variation in loan costs is explained by the independent variable *ESG* controversy, along with the nation dummy control variable. In model 3.2, 11.9% (*R-squared* = 0.119) of the variation in loan costs is attributable to *ESG* controversies and the *Masculinity Index*, which are used as control variables. The *R-squared* value of 0.381 in model 3.3 shows that 38.1% of the variability in the cost of debt is explained by the independent variables *ESG* controversy, *ESG* performance, board independence, and gender diversity while also considering their interactions as moderating factors. Model 3.4, with an *R-squared* value of 0.119, indicates that 11.9% of the variation in the cost of debt can be attributed to *ESG* controversies and their interaction effects with *ESG* performance, board independence, and gender diversity.

**Table 3. Regression Results on the Influence of ESG Controversies on Cost of Debt**

<b>Dependent Variable:</b> <i>Cost of Debt (COD)</i>	<b>With Country dummy</b>				<b>With Masculinity Index</b>			
	<b>Model 3.5</b>		<b>Model 3.7</b>		<b>Model 3.6</b>		<b>Model 3.8</b>	
	<i>Coef.</i> (x10 <sup>-3</sup> )	<i>p-value</i>	<i>Coef.</i> (x10 <sup>-3</sup> )	<i>p-value</i>	<i>Coef.</i> (x10 <sup>-3</sup> )	<i>p-value</i>	<i>Coef.</i> (x10 <sup>-3</sup> )	<i>p-value</i>
<i>ESGCONT</i>	4,616	0,087*	1,789	0,337	3,309	0,165	0,607	0,442
<i>ESG</i>	6,511	0,079	7,652	0,053	4,512	0,168	5,687	0,117
<i>ESGCONT_ESG</i>			1,168	0,012			1,178	0,012
<i>BODIND</i>	-3,058	0,282	-2,523	0,316	-1,384	0,406	-0,783	0,446
<i>ESGCONT_BODIND</i>			-0,532	0,106			-0,544	0,091*
<i>BODGEND</i>	-0,347	0,473	-0,113	0,492	-4,180	0,224	-3,741	0,249
<i>ESGCONT_BODGEND</i>			-0,201	0,347			0,016	0,488
<i>BODSIZE</i>	0,427	0,048	0,388	0,067	-0,726	0,006***	-0,778	0,004***

Dependent Variable:	With Country dummy				With Masculinity Index			
<i>FIRMSIZE</i>	-1,897	0,015 **	-1,949	0,013 **	-0,751	0,228	-0,790	0,217
<i>ROA</i>	70,041	0,001	70,650	0,001	76,101	0,001	76,317	0,001
<i>LIQ</i>	1,880	0,013	1,917	0,013	1,964	0,019	2,006	0,018
<i>LEV</i>	7,601	0,081 *	8,240	0,070 *	7,026	0,140	7,796	0,120
<i>ICR</i>	-0,508	0,000 ***	-0,505	0,000 ***	-0,521	0,000 ***	-0,518	0,000 ***
<i>COVID</i>	-0,572	0,242	-0,579	0,238	-0,662	0,204	-0,643	0,210
<i>MAS</i>					41,029	0,000	41,174	0,000
<i>COUNTRY_PHL</i>	-	0,000	-	0,000				
	21,086		21,032					
<i>COUNTRY_MY</i>	-	0,000	-	0,000				
	24,580		24,540					
<i>COUNTRY_SG</i>	-	0,000	-	0,000				
	34,427		34,510					
<i>COUNTRY_TH</i>	-	0,000	-	0,000				
	37,240		37,315					
<i>Constanta</i>		0,099		0,096		0,041		0,038
<i>N</i>		895		895		895		895
<i>R-squared</i>		0,380		0,381		0,119		0,119
<i>Wald chi2</i>		221,31		251,03		76,34		87,45
<i>Prob &gt; chi2</i>		0,000		0,000		0,000		0,000
<i>Year Dummy</i>		Yes		Yes		Yes		Yes
<i>Country Dummy</i>		Yes		Yes		No		No

Note: The p-value in this regression result uses a one-tail test. The \*\*\* sign is significant at 1%; \*\* significant at 5%; \* significant at 10%.

Source: Stata reprocessed results (2024)

The regression results in model 3.1 show that *ESG* controversy (*ESGCONT*) and cost of debt (*COD*) have a significant positive relationship at the 10% level (coef. = 0.0046; *p*-value = 0.087). This indicates that a one-unit increase in *ESG* controversy leads to a 0.0046-unit increase in the cost of debt. In contrast, model 3.2 shows an insignificant relationship (*p*-value = 0.165), suggesting that *ESG* controversy is only significantly associated with the cost of debt in model 3.1. *ESG* controversies heighten the perception of company risk in the eyes of creditors, thereby increasing the cost of borrowing. According to Aksoy and Yilmaz (2023), lenders demand a higher risk premium from companies involved in *ESG* controversies due to perceived weaknesses in transparency and risk management. La Rosa and Bernini (2022) also affirm that *ESG* controversies increase reputational risk, which in turn affects the cost of capital, including the cost of debt. Such controversies send negative signals to the market and lenders, strengthening the link between *ESG* controversy and increased cost of debt. Thus, H1 is supported by the research findings.

The regression results from models 3.3 and 3.4 show that the interaction between *ESG* controversy and *ESG* performance (*ESGCONT\_ESG*) has a significant positive relationship with the cost of debt (*COD*), with a coefficient of 0.0012 significant at the 5% level. This suggests that even when firms exhibit strong *ESG* performance, involvement in *ESG* controversies still increases their cost of debt. These findings are consistent with Hampl et al. (2024), who report that *ESG* controversies positively moderate the relationship between *ESG*



performance and the cost of capital. Theoretically, this aligns with *legitimacy theory*, which posits that *ESG* controversies damage a company's reputation regardless of its performance (Dorfleitner et al., 2020). High *ESG* performance does not entirely mitigate the negative impact of *ESG* controversies, as creditors continue to perceive elevated risk (La Rosa & Bernini, 2022). Companies with good *ESG* performance are often more transparent in disclosing controversies and more proactive in addressing them (Seneca *ESG*, 2023), but reputation remains a crucial determinant of lower borrowing costs (Maaloul et al., 2021). These findings underscore the importance of proactive strategies in managing *ESG* controversies. Firms must not only enhance *ESG* performance but also avoid involvement in controversial practices that could harm their reputation. Thus, a comprehensive sustainability strategy is essential to ensure the benefits of *ESG* performance are not negated by controversy. Therefore, H2 is not supported by the findings.

The interaction between board independence and cost of debt (*ESGCONT\_BODIND*) is not significant in model 3.3 (coef. = -0.0005; *p*-value = 0.106), but becomes significant in model 3.4, which includes the *Masculinity Index*, with a coefficient of -0.0005 at the 10% level. This indicates that board independence in *ASEAN-5* countries effectively mitigates the impact of *ESG* controversies on cost of debt. These findings are consistent with Malik and Kashiramka (2024), who note that sound corporate governance—including board independence—can reduce the adverse financial consequences of *ESG* risks. According to *agency theory*, an independent board limits managerial opportunism and enhances oversight, thereby boosting creditor confidence and reducing the cost of debt (Anderson et al., 2024; Bhojraj & Sengupta, 2003; Piot & Missonier-Piera, 2007). Therefore, H3 is supported by this study.

The regression results in models 3.3 and 3.4 show that the interaction between *ESG* controversy and gender diversity (*ESGCONT\_BODGEND*) is not significant, with coefficients of 0.0002 (*p*-value = 0.347) in model 3.3 and 0.00002 (*p*-value = 0.488) in model 3.4. This implies that the presence of women on boards does not significantly reduce the cost of debt associated with *ESG* controversies. While female directors are generally more cautious in risk management and improve transparency (Aksoy & Yilmaz, 2023), their impact is more pronounced when there are at least three women on the board (Issa & Hanaysha, 2023). Moreover, the effectiveness of female board members may also be influenced by industry type, governance structure, and environmental performance. Female directors in countries with low *power distance* and strong *feminine* cultural norms tend to contribute more meaningfully and be more widely recognized than in more *masculine* cultures (Kabir et al., 2023). Therefore, H4 is not supported by the study's findings.

Board size (*BODSIZE*) shows a significantly negative relationship with the cost of debt (*COD*), with models 3.2 and 3.4 confirming this effect. However, companies must evaluate the number of board members carefully, as effectiveness in reducing borrowing costs depends not just on size but also on firm characteristics, monitoring budgets, organizational complexity, and board quality (Fields et al., 2012; Nguyen et al., 2021).

Firm size (*FIRMSIZE*) has a significant negative relationship with cost of debt in models 3.1 and 3.3. Larger firms typically exhibit stronger resilience to cash flow shocks, possess better reputations, and are viewed more favorably by investors and creditors—enabling them to secure financing at lower interest rates (Aksoy & Yilmaz, 2022; Malik & Kashiramka, 2024; Goss & Roberts, 2011).

The *Interest Coverage Ratio (ICR)*, a measure of a company's ability to meet its interest obligations, shows a significant negative relationship with cost of debt in all models (3.1 to 3.4). A higher *ICR* reflects greater financial stability, reducing the perceived risk for lenders (Malik & Kashiramka, 2024).

The regression results of models 3.1 and 3.3, which include the COUNTRY dummy variable, show that firms in the Philippines, Malaysia, Singapore, and Thailand have significantly lower borrowing costs compared to those in Indonesia. The cost of debt differential ranges from 0.021 to 0.037 units, reflecting variations in capital market conditions, credit policies, financial risks, and regulatory environments. This finding underscores the need for Indonesian firms to evaluate country-specific risk factors contributing to higher borrowing costs.

### Robustness Test of ESG Controversy–Cost of Debt Relationship

Models 3.1 through 3.4 constitute the primary models for analyzing the relationship between *ESG* controversy and cost of debt. To ensure the robustness of the results, two additional tests were conducted: (1) the inclusion of the prior year's cost of debt (*lagged COD<sub>t-1</sub>*) as a control variable, and (2) the use of an alternative dependent variable—the ratio of cost of debt to the *Weighted Average Cost of Capital (WACC)*. Models 4.1, 4.3, and 4.4 test the effect of *ESG* controversies on the cost of debt, while models 4.2, 4.5, and 4.6 examine the moderating roles of *ESG* performance, board independence, and gender diversity on this relationship.

$$\begin{aligned} COD_{it} &= \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 BODIND_{it} + \\ &\quad \beta_4 BODGEND_{it} + \beta_5 BODSIZE_{it} + \beta_6 FIRMSIZE_{it} + \beta_7 ROA_{it} \\ &\quad + \beta_8 LIQ_{it} + \beta_9 LEV_{it} + \beta_{10} ICR_{it} + \beta_{11} LCOD_{it-1} + \beta_{12} MAS_{it} + \varepsilon_{it} \end{aligned} \quad (4.1)$$

$$\begin{aligned} COD_{it} &= \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 ESGCONT_{it} \times ESG_{it} + \\ &\quad \beta_4 BODIND_{it} + \beta_5 ESGCONT_{it} \times BODIND_{it} + \beta_6 BODGEND_{it} + \\ &\quad \beta_7 ESGCONT_{it} \times BODGEND_{it} + \beta_8 BODSIZE_{it} \\ &\quad + \beta_9 FIRMSIZE_{it} + \beta_{10} LIQ_{it} + \beta_{11} LEV_{it} + \beta_{12} ICR_{it} + \\ &\quad \beta_{14} LCOD_{it-1} + \beta_{13} MAS_{it} + \varepsilon_{it} \end{aligned} \quad (4.2)$$

$$\begin{aligned} KD_{it} &= \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 BODIND_{it} + \\ &\quad \beta_4 BODGEND_{it} + \beta_5 BODSIZE_{it} + \beta_6 FIRMSIZE_{it} + \beta_7 ROA_{it} \\ &\quad + \beta_8 LIQ_{it} + \beta_9 LEV_{it} + \beta_{10} ICR_{it} + COVIDFE + COUNTRYFE + \varepsilon_{it} \end{aligned} \quad (4.3)$$

$$\begin{aligned} KD_{it} &= \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 BODIND_{it} + \\ &\quad \beta_4 BODGEND_{it} + \beta_5 BODSIZE_{it} + \beta_6 FIRMSIZE_{it} + \beta_7 ROA_{it} \\ &\quad + \beta_8 LIQ_{it} + \beta_9 LEV_{it} + \beta_{10} ICR_{it} + \beta_{11} MAS_{it} + COVIDFE + \varepsilon_{it} \end{aligned} \quad (4.4)$$

$$\begin{aligned} KD_{it} &= \beta_0 + \beta_1 ESGCONT_{it} + \beta_2 ESG_{it} + \beta_3 ESGCONT_{it} \times ESG_{it} + \\ &\quad \beta_4 BODIND_{it} + \beta_5 ESGCONT_{it} \times BODIND_{it} + \beta_6 BODGEND_{it} \\ &\quad + \beta_7 ESGCONT_{it} \times BODGEND_{it} + \beta_8 BODSIZE_{it} \end{aligned} \quad (4.5)$$

$$\begin{aligned}
 & +\beta_9FIRMSIZE_{it} + \beta_{10}LIQ_{it} + \beta_{11}LEV_{it} + \beta_{12}ICR_{it} + COVIDFE \\
 & + COUNTRYFE + \varepsilon_i \\
 KD_{it} = & \beta_0 + \beta_1ESGCONT_{it} + \beta_2ESG_{it} + \beta_3ESGCONT_{it} \times ESG_{it} + \\
 & \beta_4BODIND_{it} + \beta_5ESGCONT_{it} \times BODIND_{it} + \beta_6BODGEND_{it} + \\
 & \beta_7ESGCONT_{it} \times BODGEND_{it} + \beta_8BODSIZE_{it} \\
 & + \beta_9FIRMSIZE_{it} + \beta_{10}LIQ_{it} + \beta_{11}LEV_{it} + \beta_{12}ICR_{it} + \beta_{13}MAS_{it} \quad (4.6) \\
 & + COVIDFE + \varepsilon_i
 \end{aligned}$$

The *lagged COD<sub>t-1</sub>* control variable (*LCOD*) is used to enhance the model's validity through the *Generalized Method of Moments (GMM)* using data from 179 companies during the period 2020–2023. The regression results in Table 4 show that *ESG* controversy (*ESGCONT*) is significant and positively associated with the cost of debt (*COD*) only in model 4.2, with a coefficient of 0.537 and a *p*-value of 1%, which is consistent with the findings of the main model. The reputational decline resulting from *ESG* controversies increases the cost of debt, as creditors perceive such companies to be less transparent in their management practices (La Rosa & Bernini, 2022; Aksoy & Yilmaz, 2023).

Among the three moderating variables, only the interaction between *ESG* controversy and board independence (*ESGCONT\_BODIND*) shows a significant negative impact on the cost of debt, with a coefficient of -0.091 at the 5% level. Independent boards are associated with stronger oversight, enhanced creditor confidence, and reduced borrowing costs (Bhojraj & Sengupta, 2003; Piot & Missonier-Piera, 2007; Anderson et al., 2024). Thus, H5 and H7 are supported by the research findings through the first robustness test involving the inclusion of the *lagged COD<sub>t-1</sub>* control variable (*LCOD*).

Model 4.1 further indicates that the previous year's cost of debt (*LCOD*) is positively related to the current cost of debt (*COD*). This suggests that creditors consider a company's historical financing record when assessing new credit risk, thereby influencing current borrowing costs (Aksoy & Yilmaz, 2023).

**Table 4. Influence of ESG Controversies on Cost Debt Costs (*COD*)**

Dependent Variable	Model 4.1		Model 4.2	
Cost of Debt ( <i>COD</i> )	Without moderating variable		With moderating variable	
Variables	Coef. (x10 <sup>-3</sup> )	p-value	Coef. (x10 <sup>-3</sup> )	p-value
<i>ESGCONT</i>	2,499	0,481	537,307	0,006***
<i>LCOD</i>	528,465	0,049**	45,359	0,429
<i>ESG</i>	-83,414	0,010**	-6,801	0,358
<i>ESGCONT_ESG</i>			-5,998	0,283
<i>BODIND</i>	-61,363	0,291	-11,442	0,186
<i>ESGCONT_BODIND</i>			-90,899	0,032**
<i>BODGEND</i>	255,156	0,004	-7,835	0,311
<i>ESGCONT_BODGEND</i>			-25,079	0,281
<i>BODSIZE</i>	-5,019	0,001**	-2,057	0,024**
<i>FIRMSIZE</i>	16,388	0,012	0,599	0,444
<i>ROA</i>	-61,736	0,385	194,390	0,079
<i>LIQ</i>	-24,865	0,029**	-6,737	0,283
<i>LEV</i>	-35,710	0,245	-11,785	0,431
<i>ICR</i>	-0,149	0,440	-1,165	0,050*
<i>MAS</i>	-117,430	0,024**	14,918	0,320
<i>Constanta</i>		-0,146		0,589

Dependent Variable	Model 4.1	Model 4.2
<i>N</i>	716	716
<i>Wald chi2</i>	382,34	737,67
<i>Prob &gt; chi2</i>	0,000	0,000
<i>Year Dummy</i>	<i>No</i>	<i>No</i>
<i>Country Dummy</i>	<i>No</i>	<i>No</i>

Note: The research sample includes observations from 179 companies or 761 firm-years during the period from 2020 to 2023. The year (*COVID*) and country (*COUNTRY*) dummy variables were not included in the research model to maintain the validity of the research model. The p-value in the regression results uses a one-tail test. The \*\*\* sign is significant at 1%; \*\* significant at 5%; \* significant at 10%.

Source: Stata reprocessed results (2024)

Weighted Average Cost of Capital/WACC calculates the average cost of capital by considering the cost of equity and debt, based on the proportion of the company's debt and equity (Kumar, 2016). The WACC formula is  $WACC = \frac{D}{D+E} \times k_D \times (1 - t_c) + \frac{E}{D+E} \times k_e$ , which involves the cost of debt ( $k_D$ ) calculated by adding the risk-free interest rate to the credit spread according to the company's credit rating, as well as the cost of equity ( $k_E$ ) obtained through the Capital Asset Pricing Model (CAPM), taking into account the risk-free rate, beta, and risk premium. In this study, the cost of debt ( $k_D$ ) is obtained from Refinitiv Eikon, reflecting the additional cost that the company must bear if it issues new debt, and is calculated based on the weighting of short-term and long-term debt costs, using interest rates and interest rates on the relevant credit curve.

**Table 5. Influence of ESG Controversies on Cost Debt Costs ( $k_D$ )**

Dependent Variable	Model 4.3		Model 4.5		Model 4.4		Model 4.6	
Cost of Debt ( $k_D$ )	with <i>dummy country</i>				with <i>Masculinity Index</i>			
Variables	Coef. (x10 <sup>-3</sup> )	p-value	Coef. (x10 <sup>-3</sup> )	p-value	Coef. (x10 <sup>-3</sup> )	p-value	Coef. (x10 <sup>-3</sup> )	p-value
<i>ESGCONT</i>	5,529	0,034 **	4,825	0,079 *	4,570	0,075 *	4,167	0,120
<i>LCOD</i>								
<i>ESG</i>	6,487	0,185	6,738	0,171	7,003	0,175	7,194	0,164
<i>ESGCONT_</i> <i>ESG</i>			0,203	0,358			0,127	0,414
<i>BODIND</i>	-4,137	0,204	-4,028	0,208	-2,277	0,328	-2,175	0,334
<i>ESGCONT_</i> <i>BODIND</i>			-0,048	0,458			-0,093	0,417
<i>BODGEND</i>	19,730	0,001	19,562	0,001	18,939	0,001	18,907	0,001
<i>ESGCONT_</i> <i>BODGEND</i>			-0,582	0,040 **			-0,443	0,092 *
<i>BODSIZE</i>	-0,010	0,488	0,003	0,497	-0,339	0,144	-0,336	0,150
<i>FIRMSIZE</i>	-0,881	0,131	-0,894	0,125	-0,429	0,303	-0,429	0,301
<i>ROA</i>	-48,750	0,002 ***	-47,878	0,002 ***	-40,646	0,001 ***	-39,685	0,007 ***
<i>LIQ</i>	1,995	0,020	1,962	0,022	2,290	0,009	2,254	0,010
<i>LEV</i>	15,807	0,001 ***	15,667	0,002 ***	18,434	0,000 ***	18,316	0,000 ***
<i>ICR</i>	-0,141	0,009 ***	-0,141	0,008 ***	-0,147	0,007 ***	-0,146	0,007 ***
<i>COVID</i>	-10,662	0,000	-10,717	0,000	-20,537	0,016	-10,617	0,000

Dependent Variable	Model 4.3		Model 4.5		Model 4.4		Model 4.6	
<i>MAS</i>			0,000		-10,581	0,000 ***	-20,262	0,017 **
<i>COUNTRY_PHL</i>	-7,904	0,003	-8,000	0,003				
<i>COUNTRY_MY</i>	-4,243	0,097	-4,296	0,094				
<i>COUNTRY_SG</i>	-8,869	0,002	-8,979	0,001				
<i>COUNTRY_TH</i>	-3,395	0,140	-3,585	0,126				
<i>Constanta</i>		0,051		0,051		0,046		0,045
<i>N</i>		881		881		881		881
<i>R-squared</i>		0,162		0,164		0,141		0,142
<i>Wald chi2</i>		285,66		322,15		250,11		268,53
<i>Prob &gt; chi2</i>		0,000		0,000		0,000		0,000
<i>Year Dummy</i>		Yes		Yes		Yes		Yes
<i>Country Dummy</i>		Yes		Yes		No		No

Note: The research sample includes observations of 177 companies or 881 unbalanced firm-years during the period from 2019 to 2023. The dependent variable is the cost of debt (*KD*) obtained from Refinitiv Eikon. The p-value in this regression result uses a one-tail test. The \*\*\* sign is significant at 1%; \*\* significant at 5%; \* significant at 10%.

*ESG* controversy (*ESGCONT*) is positively and significantly related to the cost of debt (*kD*) in model 4.3 (coef. = 0.006;  $p$ -value < 0.05), as well as in models 4.4 and 4.5 (coef. = 0.005;  $p$ -value < 0.1). These findings support H5 and are consistent with the main model 3.1. Robustness tests using models 4.5 and 4.6 reveal a significant negative relationship between the interaction of *ESG* controversy and gender diversity on the board (*ESGCONT\_BODGEND*) and the cost of debt (*kD*), indicating that higher gender diversity is associated with lower borrowing costs. Gender diversity can help mitigate the negative effects of *ESG* controversies by strengthening governance and promoting more prudent risk management. A diverse board sends a positive signal to investors and creditors that the company is well-managed, potentially reducing its exposure to *ESG* controversies. Therefore, the results of the second robustness test support both H1 and H4 in this study.

The *Masculinity Index* (*MAS*) also shows a significant negative relationship with the cost of debt. Companies operating in more *masculine* cultures tend to use less debt, supporting the findings of Mogha and Williams (2021), who identified a negative relationship between masculinity and the debt-to-equity ratio across 68 countries. In this context, firms in the Philippines, Singapore, and Malaysia exhibit lower debt costs compared to those in Indonesia, a difference attributed to the relatively higher *MAS* scores in these countries.

*Return on Assets* (*ROA*) and the *Interest Coverage Ratio* (*ICR*) are negatively associated with the cost of debt, suggesting that more profitable companies with stronger earnings coverage tend to rely on internal financing rather than external debt. In contrast, leverage is positively related to the cost of debt, implying that firms with higher debt levels face greater borrowing costs due to an increased risk of default (Bhojraj & Sengupta, 2003).

## CONCLUSION

This study examines the impact of *ESG* controversies on corporate cost of debt, focusing on the moderating roles of *ESG* performance and corporate governance within the *ASEAN-5* region. Data from 179 firm-years (895 data points) over the 2019–2023 period were analyzed using regression models with robust *Random Effects Model* (*REM*) estimation to



assess the influence of *ESG* factors and *Board of Directors (BOD)* characteristics, including board independence and gender diversity. The findings reveal that *ESG* controversies significantly increase the cost of debt, as companies involved in such controversies are perceived by creditors to pose higher risk. Notably, while strong *ESG* performance does not mitigate the adverse effects of *ESG* controversies on debt costs, board independence plays a crucial role in reducing this impact by enhancing managerial oversight and strengthening creditor confidence. Gender diversity, on the other hand, was not found to significantly influence this relationship, although a positive effect was observed in companies with a more balanced gender composition. The study also identifies that firm-level factors such as company size, interest coverage ratio, and liquidity are strongly associated with the cost of debt. Larger firms, those with higher *Interest Coverage Ratios (ICR)*, and more liquid companies tend to experience lower borrowing costs due to their perceived financial stability. Furthermore, the research highlights notable differences in the cost of debt across *ASEAN-5* countries. Firms in the Philippines, Malaysia, Singapore, and Thailand generally face lower debt costs compared to those in Indonesia, reflecting the influence of local capital market conditions and regulatory environments. These results underscore the importance of robust governance structures—particularly board independence—in mitigating the financial risks associated with *ESG* controversies. They also suggest that, in the context of emerging markets, enhancing transparency and oversight mechanisms is essential for maintaining creditor trust and minimizing financing costs.

## REFERENCES

- Adebayo, A., & Ackers, B. (2024). Managing Trade-Offs Between Environmental, Social, Governance And Financial Sustainability In State-Owned Enterprises: Insights From An Emerging Market. *Australian Accounting Review*, 34(1). <https://doi.org/10.1111/Auar.12415>
- Aksoy, M., & Yilmaz, M. K. (2023). Does Board Diversity Affect The Cost Of Debt Financing? Empirical Evidence From Turkey. *Gender In Management: An International Journal*, 38, 504-524.
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board Characteristics, Accounting Report Integrity, And The Cost Of Debt. *Journal Of Accounting And Economics*, 37, 315–342.
- ASEAN-Korea Centre. (2023). *ESG Practices In ASEAN & Korea: Pathways Towards Sustainability*. Seoul: ASEAN-Korea Centre.
- Bhojraj, S., & Sengupta, P. (2003). Effect Of Corporate Governance On Bond Ratings And Yields: The Role Of Institutional Investors And Outside Directors. *The Journal Of Business*, 76(3), 455-475.
- Budita, D. M. S., & Fidiana, F. (2023). Pengaruh Kinerja Environmental, Social, Governance Dan Kekuatan Chief Executive Officer Terhadap Kinerja Keuangan. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 12(8).
- Campbell, K., & Mínguez-Vera, A. (2008). Gender Diversity In The Boardroom And Firm Financial Performance. *Journal Of Business Ethics*, 83(3), 435-451.

- Dorfleitner, G., Kreuzer, C. C., & Sparrer, C. (2020). ESG Controversies And Controversial ESG: About Silent Saints And Small Sinners. *Journal Of Asset Management*, 21, 393–412. <https://doi.org/10.1057/S41260-020-00178-X>
- Elamer, A. A., & Boulhaga, M. (2024). ESG Controversies And Corporate Performance: The Moderating Effect Of Governance Mechanisms And ESG Practices. *Corporate Social Responsibility And Environmental Management*. <https://doi.org/10.1002/Csr.2749>
- Fields, L. P., Fraser, D. R., & Subrahmanyam, A. (2012). Board Quality And The Cost Of Debt Capital: The Case Of Bank Loans. *Journal Of Banking & Finance*, 36(5), 1536-1547.
- Ghosh, A., & Roberts, G. S. (2011). The Impact Of Corporate Social Responsibility On The Cost Of Bank Loans. *Journal Of Banking & Finance*, 35(7), 1794–1810. <https://doi.org/10.1016/J.Jbankfin.2010.12.002>
- Gracia, O., & Siregar, S. V. (2021). Sustainability Practices And The Cost Of Debt: Evidence From ASEAN Countries. *Journal Of Cleaner Production*, 300, 126942. <https://doi.org/10.1016/J.Jclepro.2021.126942>
- Greene, W. H. (2012). *Econometric Analysis* (7th Ed.). Pearson Education.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5th Ed.). McGraw-Hill Irwin.
- Hampl, F., & Linnertová, D. V. (2024). How Do ESG Controversies Moderate The Nexus Between ESG Performance And Cost Of Capital? Evidence From European Listed Companies. *Managerial Finance*. <https://doi.org/10.1108/Mf-12-2023-0762>
- Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model In Context. *Online Readings In Psychology And Culture*, 2(1). <https://doi.org/10.9707/2307-0919.1014>
- Husted, B. W., & De Sousa-Filho, J. M. (2019). Board Structure And Environmental, Social, And Governance Disclosure In Latin America. *Journal Of Business Research*, 102, 220–227. <https://doi.org/10.1016/J.Jbusres.2018.01.017>
- Issa, A., & Fang, H. (2019). The Impact Of Board Gender Diversity On Corporate Sustainability Performance. *Journal Of Cleaner Production*, 208, 1176-1184.
- Issa, A., & Hanaysha, J. R. (2023). Breaking The Glass Ceiling For A Sustainable Future: The Power Of Women On Corporate Boards In Reducing ESG Controversies. *International Journal Of Accounting & Information Management*, 31(4), 623-646. <https://doi.org/10.1108/IJAIM-03-2023-0053>
- Kabir, A., Ikra, S. S., Saona, P., & Azad, M. A. K. (2023). Board Gender Diversity And Firm Performance: New Evidence From Cultural Diversity In The Boardroom. *LBS Journal Of Management & Research*, 21(1), 1-12. <https://doi.org/10.1108/LBSJMR-06-2022-0022>
- Kumar, R. (2016). *Valuation Theories And Concepts*. Academic Press.
- La Rosa, F., & Bernini, F. (2022). ESG Controversies And The Cost Of Equity Capital Of European Listed Companies: The Moderating Effects Of ESG Performance And Market Securities Regulation. *International Journal Of Accounting & Information Management*, 30(5), 641-663.
- Maaloul, A., Zeghal, D., Amar, W. B., & Mansour, S. (2023). The Effect Of Environmental, Social, And Governance (ESG) Performance And Disclosure On Cost Of Debt: The Mediating Effect Of Corporate Reputation. *Corporate Reputation Review*, 26, 1-8.
- Malik, N., & Kashiramka, S. (2024). Impact Of ESG Disclosure On Firm Performance And Cost Of Debt: Empirical Evidence From India. *Journal Of Cleaner Production*. <https://doi.org/10.1016/J.Jclepro.2024.141582>

- Mogha, V., & Williams, B. (2021). Culture And Capital Structure: What Else To The Puzzle? *International Review Of Financial Analysis*, 73. <https://doi.org/10.1016/j.irfa.2020.101614>
- Nguyen, T., Bai, M., Hou, Y., & Vu, M. C. (2021). Corporate Governance And Dynamics Capital Structure: Evidence From Vietnam. *Global Finance Journal*, 48, 100554.
- Piot, C., & Missonier-Piera, F. (2009). Corporate Governance Reform And The Cost Of Debt Financing Of Listed French Companies. <http://dx.doi.org/10.2139/ssrn.960681>
- Seneca ESG. (2023, September 20). How ESG Controversies Impact A Company [Part 1]. Retrieved From <https://senecaesg.com/id/insights/how-esg-controversies-impact-a-company-part-1/>
- Seneca ESG. (2023, September 20). How ESG Controversies Impact A Company [Part 2]. Retrieved From <https://senecaesg.com/id/insights/how-esg-controversies-impact-a-company-part-2/>
- United Nations Development Programme (UNDP). (2024). *Asia In Focus: ESG Investing And The Business And Human Rights Agenda*. UNDP.
- Wooldridge, J. M. (2010). *Econometric Analysis Of Cross Section And Panel Data* (2nd Ed.). MIT Press.
- Wooldridge, J. M. (2016). *Introductory Econometrics: A Modern Approach* (6th Ed.). Cengage Learning.