THE EFFECT OF ESG AND CAPITAL STRUCTURE ON FIRM VALUE IN ASEAN-5

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ABSTRACT

The research is driven by the increasing demand for sustainable finance and the inconsistency of previous findings in emerging markets. This quantitative study addresses heteroskedasticity and cross-sectional correlation using panel data regression with Driscoll-Kraay Standard errors. A total of 1,070 observations for 2015-2024 are generated by the sample, which includes 107 non-financial companies in five ASEAN-5 countries. The t-test results indicate that the influence depends on the firm value proxy used. ESG and DER were not statistically significant in Model 1 (Tobin's Q). Nevertheless, PBV was significantly and positively impacted by both primary variables in Model 2 (PBV). The regression model (F-test) was statistically significant overall. These results suggest that the ASEAN-5 capital market is highly responsive to ESG and optimal debt usage (DER) when value is measured by PBV, which is consistent with both the Trade-off Theory and the Stakeholder Theory. The implication is that management is encouraged to prioritize ESG investments strategically, as these have been shown to improve market valuation (PBV) substantially.

Keywords: ESG; Capital Structure; Firm Value; ASEAN-5.

1. INTRODUCTION

The contemporary economy's structural changes and rapid global developments have necessitated that companies balance financial success with critical sustainability considerations, including environmental, social, and governance issues. This substantial change in business philosophy signifies a transition from pursuing shareholder value maximization to creating value for all stakeholders. In this context, the Environmental, Social, and Governance (ESG) framework has proven to be a leading indicator. ESG serves as a comprehensive framework for measuring a company's commitment to environmental sustainability and social well-being while also supporting its economic growth objectives. (Xaviera et al., 2023). The integrity of a company's long-term risk management is indicative of its strong ESG implementation. Companies that incorporate ESG are better able to adapt to evolving environmental regulations, social unrest, and governance crises. Consequently, ESG has evolved from a mere compliance or Corporate Social Responsibility (CSR) initiative to a strategic pillar that influences global competitiveness. (Aydoğmuş et al., 2022).

The macroeconomic consequences of inadequate ESG practices, including corruption scandals and environmental disasters, have led regulators and markets to demand greater transparency and accountability. Investor attention to companies' ESG performance is increasing as global concerns regarding climate change, social welfare, and governance transparency continue to escalate. ESG scores are now being incorporated into the investment decisions of numerous investors, as they are regarded as a reflection of a company's prospective sustainability and long-term risk. Socially Responsible Investing (SRI) has emerged due to the

widespread use of ESG scores as screening criteria by large institutional investors, including pension funds and global asset managers, when making investments. In this context, ESG is not only a strategic factor influencing firm value but also a non-financial reporting instrument. (Olivia et al., 2025).

The primary measure of managerial success in increasing shareholder wealth is firm value, which reflects market perceptions of the business's prospects and stability. Based on Stakeholder Theory, (Jeanice & Kim, 2023) describes that a company's value is determined not only by its financial performance but also by its ability to meet the expectations of a range of stakeholders, including the government, investors, and the community. Consequently, it is anticipated that a company's engagement with stakeholders will be strengthened and its public reputation improved through meticulous ESG management. This will progressively mitigate business risks, attract new investment, and ultimately enhance the company's value.

The COVID-19 pandemic, which commenced in late 2019 and persisted for several years, was the most pronounced exogenous (external) disruption to impact global financial markets and supply chains since the 2008 Global Financial Crisis. (Kuckertz et al., 2020)The business environment was significantly transformed by the pandemic, which had two primary consequences:

1. Increased Social Focus (S): The pandemic diverted investor attention from environmental (E) to social (S) factors. During the crisis, organizations that prioritized social performance (including employee protection, workplace safety, and community support) exhibited enhanced operational resilience and enhanced market perception. Companies with a robust social license to operate began to be valued by the market.
2. Financial Resilience Test (Capital Structure): Companies were subjected to severe liquidity constraints because of COVID-19. Companies were compelled to promptly modify their capital structures, either by restructuring existing loans or increasing short-term debt to remain solvent.

Research conducted during the pandemic has shown that companies with high ESG scores outperform those with low ESG scores in terms of stock performance and volatility during the crisis's peak. (Putu et al., 2024). This phenomenon, which was referred to as ESG Alpha during the crisis, implies that ESG serves as an effective risk mitigator. Nevertheless, the pandemic's influence on the ASEAN-5 region is also multifaceted. Company value is ultimately harmed because of potentially suboptimal capital structure decisions, such as delaying investments or increasing costly debt, caused by mobility restrictions, factory closures, and supply chain disruptions, which reduce revenues. It is imperative to evaluate capital structure and ESG.

The correlation between ESG performance and capital structure has emerged as a critical issue in sustainable finance. Entities with superior ESG often have easier access to external financing due to their perceived lower risk profile, as demonstrated by various studies. The cost of corporate debt can be reduced as financial institutions gain greater confidence from high ESG quality. ESG is not merely a standalone factor in the rapidly evolving context of sustainable finance; it is an enabler that helps companies achieve their ideal capital structure at minimal cost and, holistically, optimize corporate value. Consequently, it is imperative to examine the concurrent interaction between ESG and capital structure to understand the mechanisms of value creation within a sustainable business ecosystem. (Suryatna, 2023).

2. LITERATURE REVIEW

2.1 Stakeholder Theory

From the perspective of Stakeholder Theory, a corporation's operational success is significantly contingent upon the quality of its connections with all stakeholders, including employees, consumers, governments, and local communities. Corporate responsibility, in principle, encompasses all stakeholders, not just shareholders. Consequently, the Environmental, Social, and Governance (ESG) framework exemplifies this notion, as ESG criteria provide tangible evidence of a company's commitment to the broader public interest. Efficient management of stakeholder relationships will enhance the corporate image and reputation, hence positively impacting the company's worth. (Suryatna, 2023).

2.2 Legitimacy Theory

Legitimacy Theory contends that the operations of corporations depend on a social contract with the communities in which they operate. To ensure sustainability, it is imperative that business entities comply with the norms, values, and regulations recognized by the broader community. In practice, companies employ Environmental, Social, and Governance (ESG) practices to establish credibility with stakeholders. Companies use sustainability reports to demonstrate environmental awareness and social accountability, which ultimately enhances corporate value. (Sany et al., 2024).

2.3 Trade-off Theory

The main principle of this theory is that companies will seek an ideal capital structure. This model explains that debt determination is based on the trade-off between the incentives and disincentives of using debt. The most significant benefit of debt is the tax shield. However, this benefit must be balanced against disadvantages such as the costs of financial distress (including bankruptcy risk) and agency costs. By weighing both sides, companies seek to maximize their market value. (Oktaviani et al., 2019).

According to Oktaviani et al., (2019) In contrast to over-leveraged entities, companies that maintain moderate debt levels typically demonstrate superior firm value. The results of this study unequivocally demonstrate a critical equilibrium between the financial risks of debt and the potential returns achievable through an optimal capital structure.

2.4 Pecking Order Theory

A study by (Dewi Sartika & Siddik, 2019) suggests that organizations that generate substantial profitability are inclined to limit their use of debt. This is because they can fund investment requirements from retained earnings. Conversely, organizations that demonstrate inadequate profitability depend more heavily on external financing via debt. Consequently, capital structure theory establishes a foundation for comprehending the impact of leverage and financial risk on firm value by analysing the composition of financing (debt-to-equity). In the context of this research hypothesis, it is anticipated that capital structure will be positively correlated with firm value, provided that its utilization is maintained at an optimal level.

2.5 Environmental, Social, and Governance

Environmental, social, and governance (ESG) emerged in response to the growing global recognition of the importance of sustainability in the corporate sector. ESG refers to the extent to which an organization integrates environmental, social, and governance factors into its operations. According to Dincă et al. (2022), not only does environmental, social, and governance (ESG) serve as a tool for reporting non-financial information, but it also functions as an indicator of the quality of corporate management over the long run.

Refinitiv ESG is a corporate sustainability performance measurement tool that evaluates environmental, social, and governance (ESG) performance through a public, data-driven approach. In contrast to other rating providers, Refinitiv uses a percentile ranking methodology to evaluate a company's performance relative to its industry peers. (Davis & Jamie, 2024). The score is determined by selecting the 186 most pertinent and objective ESG indicators from over 630 company-level indicators. These indicators are used to assess ten key categories, including emissions, workforce, and governance. (Arvidsson & Dumay, 2022). This score, on a 0 to 100 scale, provides a comprehensive assessment of how effectively a company incorporates sustainability principles into its operations to reduce future risks.
(Pereira et al., 2018).

The Refinitiv ESG scoring system is divided into four primary quartiles, which correspond to letter grades ranging from D- to A+. Companies that achieve a score of 75 or higher (Category A) are considered to have exceptional ESG performance and a high level of information transparency. Conversely, scores below 25 (Category D) indicate poor performance and minimal information disclosure. (Husnaint & Basuki, 2020). Refinitiv's methodology is distinguished by its impartial handling of missing data, which penalizes companies that fail to report critical data points in their scores. This serves as an incentive for organizations to enhance transparency in disclosing their non-financial operations to preserve their credibility with global investors. (Chen et al., 2024).

Table 2.1 ESG Score

Numeric Score	Letter Rating	Performance Description
75 – 100	A-, A, A+	**Very Good:** Exhibits a high level of transparency and a relatively robust ESG performance.
50 – 75	B-, B, B+	**Good:** Exhibits superior ESG performance and a definitive commitment to ESG matters.
25 - 50	C-, C, C+	**Sufficient:** Demonstrates ordinary performance and data transparency that requires further enhancement.
0 - 25	D-, D, D+	**Poor:** Exhibits inadequate ESG performance and a lack of transparency in public data.

ESG is an essential metric for evaluating the sustainability and integrity of corporate governance. ESG not only improves reputation but also bolsters investor confidence and mitigates operational and reputational risks. This study posits that ESG is a critical factor in

determining company value. This is achieved through the direct impact of reputation and social performance, as well as the indirect impact of risk reduction and increased investor confidence.

2.6 Hypothesis Development

2.6.1 The Influence of ESG on Firm Value

Environmental, Social, and Governance (ESG) indicators are non-financial gauges of a corporation's dedication to corporate governance, environmental sustainability, and social responsibility. Companies that prioritize the interests of diverse stakeholders are more likely to generate stable value in the long term, according to Stakeholder Theory. Additionally, ESG signals to investors that the company has effective governance and proactively manages risks associated with social and environmental issues. A study by Prabawati & Rahmawati, (2022) Examining 184 public companies in ASEAN shows that ESG has a negative impact on firm value (Tobin's Q). This is because investors in the ASEAN region still view the costs of ESG reporting and implementation as burdens rather than as a competitive advantage. Conversely, research conducted by Sany et al., (2024) In non-financial companies in Thailand, a positive and significant relationship between ESG and firm value was found, indicating that sustainability practices increase market confidence. Research findings (Zhong et al., 2022) China also supports the view that ESG can enhance corporate value through reputation-building mechanisms and more efficient resource management.

H_{1a}: ESG has a positive effect on firm value, as measured by Tobin's Q.
H_{1b}: ESG has a positive effect on firm value, as measured by PBV.

2.6.2 The Influence of Capital Structure on Firm Value

A company's capital structure indicates its financing mix of debt and equity. A company pursues the optimal debt level to maximize its value, considering the tax benefits of debt (the tax shield) and bankruptcy costs, according to the Trade-Off theory. Companies with excessively high debt levels are susceptible to financial distress. In contrast, those that maintain a balanced debt ratio can increase their value by convincing investors that they can manage risks effectively. (Brigham & Houston, 2019).

Previous empirical studies on the correlation between capital structure and firm value often yielded heterogeneous results. For example, findings from Ayem & Nugroho (2016) on manufacturing companies listed on the Indonesia Stock Exchange (IDX) concluded that capital structure had no significant impact on corporate valuation. Conversely, Sofiani & Siregar (2022) noted a positive and significant effect of the Debt-to-Asset Ratio (DAR) on firm value, particularly in the food and beverage sector in Indonesia. In addition, Nursetya & Nur Hidayati (2021) also emphasized that although capital structure has a substantial role in financial performance, its statistical impact on market value is not always significant.

The results highlight inconsistencies in the impact of capital structure on corporate valuation, likely due to differences in industry characteristics and prevailing economic conditions. Considering the synthesis of financial theories (Trade-off and Pecking Order) and relevant empirical studies, the first hypothesis (H) testing the relationship between capital structure and firm value in this study is formulated as follows:

H_{2a}: Capital structure has a positive effect on firm value, as measured by Tobin's Q.
H_{2b}: Capital structure has a positive effect on firm value, as measured by PBV.

3. RESEARCH METHOD

3. 1 Sample

This study employed purposive sampling to identify the units of analysis. This non-probability method involves a purposeful selection process based on criteria aligned with the study's focus. This rigorous criterion guarantees that the final sample is representative and possesses properties suitable for regression analysis. The meticulous application of purposive sampling criteria yielded a final sample of 107 firms. The observation period of this study spans 10 years (2015-2024), yielding a total of 1,070 observation units (data points) used in the panel data regression model. The number of observations is deemed adequate to ensure the validity and reliability of the statistical analysis results. This elimination approach is a systematic method to ensure that the sample used is truly representative and relevant to the aims of panel data regression analysis. The process of sample selection, including the computation of eliminations at each stage, is encapsulated in the subsequent table:

Table 3.1 Data Selection Results

No	Description	Total
1.	Total number of non-financial companies in the ASEAN-5 during the observation period	**3.420**
2.	Companies lacking complete/consistent ESG data	**1.656**
3.	Companies lacking complete financial data	**673**
4.	Companies lacking complete data for control variables	**984**
	Final Sample Size	**107**
	Observation Period (Years)	**10**
	Total Observations (Number of Samples x Period)	**1.070**

3.2 Variable Measurement

3.2.1 Dependent Variable

Firm Value (Tobin's Q and PBV)

Company value reflects the overall market view of a corporation's performance. According to Brigham & Houston (2019)This value is determined by how much investors assess the business entity's prospects. For measurement purposes in this study, company value will be estimated using two key financial indicators: Tobin's Q and Price-to-Book Value (PBV).

$$PBV = \frac{Price}{Book\ Value}$$

$$TQ = \frac{Total\ Market\ Value\ of\ Firm + Debt}{Total\ Assets}$$

3.2.2 Independent Variable

ESG (Environmental, Social, and Governance)

ESG is a metric used to determine corporate sustainability, encompassing three fundamental dimensions: Environmental, Social, and Governance. (Prabawati & Rahmawati, 2022) emphasize that a high ESG score demonstrates a company's commitment to sustainable business practices. This commitment directly strengthens the entity's reputation and increases its value in the eyes of the market.

$$ESG = Environmental\ pillar + Social\ pillar + Governance\ pillar + Environmental\ Pillar$$

Capital Structure

Capital structure is the ratio of external funding (debt) to internal funding (equity) used to finance corporate assets. According to Ayem & Nugroho, (2016)An optimal capital structure can increase a company's value, particularly by leveraging the tax shield from debt interest payments. For this study, capital structure is proxied by the Debt-to-Equity Ratio (DER).

$$DER = \frac{Total\ Debt}{Total\ Equity}$$

3.2.3 Control Variable

Firm Size

Used as a control variable, SIZE (Firm Size) is measured by total assets. Larger firms are assumed to have greater political exposure and more efficient access to capital market funding. (Oktaviani et al., 2019) emphasize that this variable must be controlled in firm value analysis, as larger firms tend to have sufficient financial capacity to implement comprehensive ESG programs, and this can influence investor valuations.

$$SIZE = Ln(Total\ Assets)$$

Leverage

The debt-to-asset ratio (DAR) is used as a control variable to measure the proportion of a company's assets financed by debt, reflecting its dependence on debt.

$$DAR = \frac{Total\ Debt}{Total\ Assets}$$

GDP Growth

GDP growth is a crucial macroeconomic control variable in a cross-national study (ASEAN-5). A nation's macroeconomic conditions, including the GDP growth rate, directly influence business profits, consumer purchasing power, and investor sentiment in the equity market. By controlling for GDP growth, researchers ensure that the effects of ESG and capital structure on business value are not affected by economic cycles or varying national conditions within the ASEAN-5 sample. (Naibaho & Hardiata, 2025)

$$GDP\ Growth = \frac{GDPt - (GDPt - 1)}{GDPt - 1}$$

COVID-19

The COVID-19 dummy variable captures the impact of exogenous shocks that cannot be explained by other micro (firm-specific) variables. (Ary et al., 2025)The COVID-19 pandemic (which occurred from 2020 onwards) created extreme uncertainty, drastically impacting liquidity, supply chains, and global market sentiment. COVID-19 is proxied using a dummy-coded 1 for the COVID-19 period and 0 for the non-COVID-19 period.

3.3 Research Model

Model 1

In the preliminary analysis, the authors concentrated on research model 1 to investigate the influence of ESG Score and Capital Structure, the primary independent variables, on Firm Value, as indicated by Price to Book Value (PBV). This analysis additionally incorporated macro-micro control variables, including Leverage (DAR), Firm Size (SIZE), GDP Growth, and a COVID-19 dummy variable.

$TobinsQ_{it} = \alpha_0 + \beta_1\ ESGscr_{it} + \beta_2\ DAR_{it} + \beta_3\ SIZE_{it} + \beta_4\ DER_{it} + \beta_5\ GDPgrwt_{it} + \beta_5\ COVID_{it} + \varepsilon_{it}$

Model 2

The author focuses the initial analysis on research model 2 to investigate the impact of ESG and Capital Structure, as the primary independent variables, on Firm Value, measured by Price-to-Book Value (PBV). This analysis also encompasses macro-micro control variables, such as leverage (DAR), GDP growth, firm size (SIZE), and a COVID-19 dummy, in addition to Capital Structure (DER).

$PBV_{it} = \alpha_0 + \beta_1\ ESGscr_{it} + \beta_4\ DER_{it} + \beta_2\ DAR_{it} + \beta_3\ SIZE_{it} + \beta_4\ GDPgrwt_{it} + \beta_5\ COV_{it} + \varepsilon_{it}$

The study will conduct several analyses to test the hypotheses, including descriptive statistics, Pearson correlation analyses, and panel data linear regression.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The firm value variable exhibits a low mean and high variation, suggesting the presence of extreme values. Price to Book Value (PBV): The mean PBV is 2,904, indicating that the market price of companies in the ASEAN-5 is, on average, 2.9 times their book value. Nevertheless, the data show a substantial deviation from the standard (6,622), with a maximum

of 80.84, suggesting that the market places a high premium on certain companies relative to others. Tobin's Q (TOBINSQ): The average Tobin's Q is 2,889. The utmost value of Tobin's Q is 94.28, and the standard deviation is an exceptionally high 7,298. This suggests that the market's assessment of business assets in the ASEAN-5 region varies substantially.

The ESG score ranges from 0 to 100, with an average of 53.871. This score means that, on average, the businesses in the sample do a good job of being environmentally friendly. The score range is large, from 4.49 to 90.67, indicating that companies use ESG practices in very different ways. The average debt-to-equity ratio (DER) is 90.727, which is equal to 0.907 times equity. This means that debt is slightly less than equity. But a few 1164.18 (11.64 times) indicate significant exceptions, with companies whose debt is much higher than their equity. Size of the Company (SIZE): The average size of a company (Ln Total Assets) is 22,492, and the spread isn't very wide (Std. Dev. 1.183). After the natural logarithm is used to equalize the sizes of the chosen firms, most of them are about the same size. COVID-19 (COV): The average value of the COV dummy variable is 0.4, which means that 40% of the 1,070 records (firm-years) happen during the period that is marked as a crisis/pandemic year (value 1). This ensures that the effects of the COVID-19 shock are properly captured in the study sample.

The average GDP growth in the ASEAN-5 region throughout the study period was 3.575%. The minimum (-9.52%) and maximum (9.76%) values signify that the observation period included both substantial economic downturns (notably during the epidemic) and periods of robust economic expansion. Debt-to-Asset Ratio (DAR): The average Debt-to-Asset Ratio (DAR) was 0.306, indicating that roughly 30.6% of a company's assets were financed through debt. The peak result was 0.81, signifying that the most indebted firms maintained debt levels under 81%.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std.dev	Min	Max
ESG	1070	53.871	18.780	4.49	90.67
PBV	1070	2.904	6.622	0	80.84
TOBINSQ	1070	2.889	7.298	0.11	92.28
DER	1070	90.727	106.54	0.08	1164.18
SIZE	1070	22.492	1.183	19.1	25.34
DAR	1070	0.306	0.168	0	0.81
COV	1070	0.4	0.49	0	1
GDPGRWT	1070	3.575	3.407	-9.52	9.76

4.2 Regression Model Selection

4.2.1 Hausman Test

According to the Hausman Test Table results, the statistical conclusion for Model 1 is to accept the Null Hypothesis. This judgment is founded on a probability value of 0.3732, which notably exceeds the 0.05 significance threshold. Thus, the Random Effects Model (REM) is widely recognized as the most reliable and effective for estimating panel data regression models. In contrast, for Model 2, the statistical conclusion is to reject the Null Hypothesis. The rejection is substantiated by a p-value of 0.000, which is beneath the 0.05

criterion. Consequently, the Fixed Effects Model (FEM) is the most appropriate model for estimating the panel data regression in Model 2.

Table 4.2 Hausman Test Results Model 1 and 2

Model	Chi^2	$Prob>Chi^2$	Result
Model 1	6.46	0.3732	Random Effect Model
Model 2	91.28	0.0000	Fixed Effect Model

4.3 Classical Assumptions

4.3.1 Multicollinearity Test

Models 1 and 2

The outcomes of this multicollinearity assessment indicate that multicollinearity is not a substantial issue for the regression model. This is predicated on a Mean Variance Inflation Factor of 7.28. The Mean VIF is below the critical threshold of 10, indicating that the model can still yield efficient estimates and is not influenced by excessive correlation among variables.

Table 4.3 Multicollinearity Test Results Model 1 and 2

Variable	VIF	1/VIF
SIZE	14.64	0.068312
DAR	10.63	0.094068
ESG	10.08	0.099161
DER	4.05	0.247000
GDPgrwth	2.32	0.431581
COV	1.95	0.513168

4.3.2 Heteroscedasticity Test

This test verifies that the error term (residual variance) remains constant across the company's cross-sectional units (homoscedasticity). The null hypothesis posits that the residual variances are equivalent. The p-value of 0.0000 is significantly lower than the 0.05 significance level; the null hypothesis is rejected.

Table 4.4 Heteroscedasticity Test Results Model 1 and 2

Model	$Prob>Chi^2$
Model 1	0.0000
Model 2	0.0000

4.4 Model Specifications Test

Coefficient of Determination

The Adjusted R-squared value ranges from 0 to 1. If the value approaches 1, it indicates that the independent variables are highly effective and significantly explain the variation in the dependent variable. The estimation results for Research Model 1, adjusted using the Driscoll-Kraay method, indicate that the Determination Coefficient (Overall R-squared) is 0.1257. This number indicates that 12.57% of the overall variation in Company number (Tobin's Q) among ASEAN-5 enterprises during the observation period is explained by the variables in the model.

The estimation results for Research Model 2 indicate that the coefficient, namely the Within R-squared, is 0.2146. This figure indicates that 21.46% of the overall variation in the Firm figure (PBV) among ASEAN-5 enterprises can be explained by the factors incorporated into the model.

Table 4.5 Coefficient of Determination

Model	Within R-squared
Model 1	0.1257
Model 2	0.2146

F-test

The model's overall viability was evaluated using the Wald Test (chi2). This test is essential for assessing the statistical significance of the entire regression. The Driscoll-Kraay regression findings for Model 1 indicated a Wald chi-square statistic of 151.55 (p-value < 0.0001). Statistically, Research Model 1 is viable. The Driscoll-Kraay regression findings for Model 2 indicated an F-statistic of 91.38 and a probability value (Prob > F) of 0.0000. The Null Hypothesis was rejected due to the p-value of 0.0000 being significantly lower than the significance level of 0.05 (5%).

Table 4.6 F-test Result

Model	Prob>F
Model 1	0.0000
Model 2	0.0000

4.5 Hypothesis Test

Model 1

Table 4.7 T-test Result Model 1

Variable	Coefficient	Prob/2	Conclusion
ESG	0.232222	0.118	$H1_a$: Not Supported

DER	-0.000334	0.402	$H2_a$: Not Supported
SIZE	-1.115687	0.048	
DAR	-3.220607	0.1495	
COV	0.5347523	0.00045	
GDP	0.298879	0.049	
CONS	27.42885	0.04	
*****, **,* significant level 1% (0.01), 5%(0.05), 10%(0.10) respectively**			

Regression analysis indicates that ESG Performance positively affects corporate value, as measured by Tobin's Q, with a regression coefficient of 0.0232222. Despite the positive trend, the statistical analyses indicate otherwise. The p-value of 0.236 significantly exceeds the 0.05 threshold, indicating that ESG does not exert a substantial influence on Tobin's Q. This finding suggests that sustainability factors (ESG) have not been fully integrated as a significant determinant that can statistically alter the company's valuation prospects in the sample market.

Additionally, a negative coefficient of -0.000334 is found for the Capital Structure (DER) variable. This negative coefficient is consistent with the theory that excessive debt can exacerbate financial risk and reduce a company's value. Nevertheless, the p-value is exceedingly high, at 0.804. Consequently, Tobin's Q is not statistically influenced by leverage (DER). This extremely high p-value indicates that fluctuations do not significantly affect investors' evaluations of the company's debt-to-equity ratio prospects in Model 1.

Model 2

Table 4.8 T-test Result Model 2

Variable	Coefficient	Prob/2	Conclusion
ESG	0.0352248	0.00095	H1b: Supported
DER	0.0240596	0.001	H2b: Supported
SIZE	-5.540792	0.000	
DAR	-8.428563	0.0005	
COV	0.2420905	0.0098	
GDP	-0.0251773	0.128	
CONS	126.0246	0.000	
*****, **,* significant level 1% (0.01), 5%(0.05), 10% (0.10) respectively**			

Strong statistical evidence is provided by partial hypothesis testing for the ESG variable (ESGscr). The positive regression coefficient of 0.0352248 suggests a directional relationship. This relationship is also statistically significant (p = 0.019), which is below the critical threshold of 0.05. Consequently, it can be inferred that ESG has a substantial and beneficial impact on Firm Value (PBV). This discovery underscores the ASEAN-5 capital market's endorsement of sustainability practices. Ultimately, valuation premiums that exceed a company's book value are driven by investors' perception that superior ESG performance signals sustainable business prospects and strong management.

The Capital Structure (DER) variable exhibits a positive coefficient of 0.0240596, accompanied by a p-value of 0.020. Given that the p-value is significant (0.05), DER exerts a positive and significant influence on PBV. This favourable outcome may suggest that the debt-to-equity ratio remains within an ideal threshold, or that the market is responding positively to firms' ability to leverage debt for enhanced profitability in the ASEAN-5 region.

4.6 Discussion

The Influence of ESG on Firm Value

The ESG Performance variable has a positive coefficient of 0.23222, as indicated by the test results; however, the probability value is 0.236. ESG Performance does not have a statistically significant effect on Tobin's Q because the p-value exceeds the 0.05 significance level. Although this lack of significance is positive, it suggests that the variations in a company's ESG Performance are insufficient to generate substantial changes in the company's market value as measured by Tobin's Q. This discovery agrees with the findings of (Sany et al., 2024) and (Xaviera et al., 2023). Both of which determined that the aggregate ESG Performance or ESG does not have a substantial impact on company value (Tobin's Q). This may be because the market in this study sample has not yet fully internalized ESG information as a fundamental factor in stock valuation. The long-term benefits of ESG investments are not yet reflected in current stock prices. Nevertheless, these findings are in direct opposition to those of Dincă et al. (2022) and Zhong et al. (2022), who reported a substantial and beneficial influence. These results suggest that, although companies in the ASEAN-5 region have begun implementing sustainability reporting in accordance with international standards (such as Refinitiv), the market has not yet prioritized these efforts. This is consistent with the findings of Prabawati and Rahmawati (2022), who found that the market often fails to recognize ESG scores in the ASEAN region because investors perceive ESG implementation costs as a burden that can distort the value of company assets.

This insignificance can also be explained by the Market Efficiency hypothesis, which is generally considered low to moderate in the ASEAN region. Investors in emerging markets such as the Philippines, Thailand, and Indonesia are generally more responsive to fundamental financial data affecting dividends than to non-financial information. Moreover, Richardson and Lanis (2007) highlight that regulatory disparities among the ASEAN-5 nations lead to variability in the quality of ESG disclosures. The inconsistency in standards complicates accurate comparisons for investors, prompting them to disregard ESG scores when computing Tobin's Q and to prioritize macroeconomic variables like GDP, which showed a significant coefficient (0.049) in this model.

The Effect of ESG on Firm Value (PBV): The test results show that the ESG Performance variable has a positive coefficient of 0.0352248 and a p-value of 0.019. Because 0.019 is less than 0.05, ESG Performance has a positive and statistically significant effect on PBV. This result indicates that improving a company's ESG (Environmental, Social, Governance) performance will increase the stock market value relative to its book value. For investors who use PBV as a proxy, ESG performance is considered a factor that improves the company's future growth prospects and asset quality, so they are willing to pay a higher premium. Thus, the Hypothesis is accepted. This result is consistent with the findings of Jeanice

& Kim (2023), who concluded that ESG implementation has a positive effect on Firm Value (using PBV & ROE). This consistency supports the view that, when PBV measures firm value, the market is more sensitive and responds positively to non-financial information, such as ESG.

This analysis is also supported by the argument that ESG disclosure in the ASEAN-5 remains compliance-driven (merely fulfilling regulatory obligations) rather than strategic-driven. Consequently, high ESG scores are perceived as merely a form of administrative compliance that does not provide a tangible competitive advantage for a company's market value. This reinforces the findings. (Sany et al., 2024) In Thailand, the market prioritized economic resilience and political stability over corporate sustainability scores amid regional economic uncertainty.

The Influence of Capital Structure on Firm Value

The Effect of Capital Structure on Firm Value (Tobin's Q). The test results show that the DER variable has a negative coefficient of -0.000334 and a probability value of 0.804. Because the p-value is greater than 0.05, DER does not significantly influence Tobin's Q. The negative coefficient indicates that increasing debt (DER) tends to decrease Tobin's Q, but this effect is not statistically significant. This may be because investors have considered debt risk as a normal part of the capital structure, so small changes in DER do not directly affect the market's valuation of the company's assets. This result is consistent with research by (Desipradani & Sa'diyah, 2024), which concluded that capital structure (including DER) does not affect Tobin's Q. This result contradicts general findings that often use PBV as a proxy, such as (Dewi Kusuma Wardani & Maria Eka Putri Djando, 2022), which found a positive effect of capital structure on firm value. This test aims to ensure that the error term (residual variance) is constant across the company's cross-sectional units (homoscedasticity). The null hypothesis in this test states that the residual variances are equal. Because this probability value of 0.0000 is much smaller than the significance level of 0.05, the null hypothesis is rejected.

This analysis is supported by research. (Tarmuji et al., 2016), which states that ESG practices in countries such as Malaysia and Indonesia have indeed begun, but their impact on economic performance and market value (PBV) is not yet immediately visible because the market is still in the early stages of introduction. This insignificant result also aligns with findings (Nursetya & Nur Hidayati, 2021), which emphasizes that investors in the ASEAN-5 region remain highly sensitive to fundamental risks and regional economic fluctuations compared to social responsibility scores. Investors often view the cost of achieving a high ESG score as a burden on a company's equity, so they are unwilling to pay a higher share price (a premium), as reflected in the PBV ratio.

The Effect of Capital Structure on Firm Value (PBV). The test results show that the DER variable has a positive coefficient of 0.0240596 with a p-value of 0.020. Because 0.020 is less than 0.05, DER has a positive and significant effect on PBV. This positive coefficient indicates that an increase in the debt ratio (DER) actually increases the company's market valuation (PBV). This can be interpreted in line with the Trade-Off Theory, where the use of debt can provide tax shield benefits (tax savings) that outweigh the costs of financial distress. Optimal (not excessive) use of debt can increase return on equity and improve investors' perceptions of the firm's value. Therefore, the hypothesis is accepted. These results are

consistent with the findings of Sofiani & Siregar (2022) and Dewi Kusuma Wardani & Maria Eka Putri Djando (2022), both of which found that capital/debt structure has a positive and significant effect on Firm Value, as proxied by PBV. However, this result contradicts (Nursetya & Nur Hidayati, 2021) and (Oktaviani et al., 2019), who found that capital structure does not affect company valuation (PBV).

5. CONCLUSION

Based on a series of econometric analyses, this study investigates the relationships between Sustainability Performance Score (ESG), Capital Structure (measured by DER), and Firm Value (measured by PBV) among selected companies in the ASEAN-5 region over the observation period. Using a panel data regression method, strengthened by Driscoll-Kraay standard errors to address potential heteroscedasticity and cross-sectional dependence, the main findings of this study are summarized as follows: ESG has a significant and positive influence on Firm Value (PBV). This result indicates that companies that demonstrate a superior commitment to environmental, social, and governance aspects tend to receive higher market valuations. This positive response from the ASEAN-5 capital markets underscores that investors view strong ESG performance as reflecting superior management quality and the corporation's ability to create sustainable value over the long term. Therefore, sustainability practices have been recognized as an essential non-financial factor in determining a company's valuation premium over its book value.

The results of the hypothesis test indicate that the Debt-to-Equity Ratio (DER) has a positive and significant effect on Firm Value (PBV). This positive significance implies that, at the level of debt usage observed in the study sample, the company's capital structure remains within the optimal range. Investors appreciate the use of debt because it provides a tax shield, which ultimately increases shareholder returns. This finding partially supports the premise of the Trade-off Theory that the benefits of debt (such as tax shields) still outweigh its costs, thereby increasing market appreciation of Firm Value (PBV).

In contrast to DER, the Debt-to-Asset Ratio (DAR) shows a negative and highly significant effect on Firm Value (PBV). This finding is strongly consistent with the Trade-off Theory, particularly regarding the cost of debt. An increase in DAR—which measures total debt relative to total assets—is interpreted by the market as a significant increase in financial risk. When the debt-to-total-assets ratio becomes too high, investors' concerns about potential financial distress and default risk increase significantly, leading them to apply valuation discounts and, consequently, lower the Company's Value.

In testing the control variables, Company Size (SIZE) had a negative and significant effect on PBV. This result suggests that large companies tend to have more stable or slower growth rates than small companies. The market may assess this more limited growth prospect at lower valuations. Meanwhile, the dummy variable representing the impact of COVID-19 (COV) and the GDP Growth variable (GDPGRWT) both showed no statistically significant effect on Company Value (PBV). This implies that macroeconomic fluctuations and pandemic shocks during the study period were not yet strong enough, or were not directly reflected in changes in companies' market valuations (PBV), apart from the modeled micro-company factors.

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REFERENCES

Arvidsson, S., & Dumay, J. (2022). Corporate Esg Reporting Quantity, Quality And Performance: Where To Now For Environmental Policy And Practice? *Business Strategy And The Environment*, *31*(3), 1091–1110. Https://Doi.Org/10.1002/Bse.2937

Ary, E., Naibaho, B., & Raudhotuzanah, D. (2025). The Role Of Esg And External Assurance In Firm Performance: External Assurance As A Moderator. *Jasf: Journal Of Accounting And Strategic Finance*, *8*(1), 110–132. Https://Doi.Org/10.33005/Jasf.V8i1.572

Ayem, S., & Nugroho, R. (2016). *Pengaruh Profitabilitas, Struktur Modal, Kebijakan Deviden, Dan Keputusan Investasi Terhadap Nilai Perusahaan* (Vol. 4, Number 1).

Brigham, E. F. ., & Houston, J. F. . (2019). *Fundamentals Of Financial Management*. Thomson/South-Western.

Chen, F., Liu, Y. Hu, & Chen, X. Zhao. (2024). Esg Performance And Business Risk—Empirical Evidence From China's Listed Companies. *Innovation And Green Development*, *3*(3). Https://Doi.Org/10.1016/J.Igd.2024.100142

Davis, & Jamie. (2024). *Environmental, Social And Governance Scores From Lseg Environmental, Social And Governance Scores From Lseg 2*.

Desipradani, G., & Sa'diyah, H. (2024). *Pengaruh Keputusan Investasi, Profitabilitas, Dan Struktur Modal Terhadap Nilai Perusahaan*.

Dewi Kusuma Wardani, O., & Maria Eka Putri Djando, S. (2022). Pengaruh Struktur Modal Terhadap Nilai Perusahaan Dengan Good Corporate Governance Sebagai Variabel Moderasi (Studi Kasus Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2016-2020). In *Jpdsh Jurnal Pendidikan Dasar Dan Sosial Humaniora* (Vol. 1, Number 8). Https://Bajangjournal.Com/Index.Php/Jpdsh

Dewi Sartika, U., & Siddik, Adah. (2019). Pengaruh Inflasi, Suku Bunga, Nilai Tukar, Dan Produk Domestik Bruto Terhadap Nilai Perusahaan. *Jurnal Ilmu Manajemen*, *9*(2). Https://Doi.Org/10.32502/Jimn.Vxix.Xxxx

Husnaint, W., & Basuki, B. (2020). Asean Corporate Governance Scorecard: Sustainability Reporting And Firm Value. *Journal Of Asian Finance, Economics And Business*, *7*(11), 315–326. Https://Doi.Org/10.13106/Jafeb.2020.Vol7.No11.315

Jeanice, J., & Kim, S. S. (2023). Pengaruh Penerapan Esg Terhadap Nilai Perusahaan Di Indonesia. *Owner*, *7*(2), 1646–1653. Https://Doi.Org/10.33395/Owner.V7i2.1338

Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Morales Reyes, C. A., Prochotta, A., Steinbrink, K. M., & Berger, E. S. C. (2020). Startups In Times Of Crisis – A Rapid Response To The Covid-19 Pandemic. *Journal Of Business Venturing Insights*, *13*. Https://Doi.Org/10.1016/J.Jbvi.2020.E00169

Naibaho, E. A. B., & Hardiata, F. (2025). The Influence Of Organizational Slack On Firm Performance Moderated By Managerial Ability. *Jurnal Akuntansi Dan Keuangan*, *27*(1), 1–22. Https://Doi.Org/10.9744/Jak.27.1.1-22

Nursetya, R. P., & Nur Hidayati, L. (2021). How Does Firm Size And Capital Structure Affect Firm Value? *Journal Of Management And Entrepreneurship Research*, *1*(2). Https://Doi.Org/10.34001/Jmer.2020.12.01.2-7

Oktaviani, M., Rosmaniar, A., Hadi, S., Ekonomi, F., Universitas, B., & Surabaya, M. (2019). Pengaruh Ukuran Perusahaan (Size) Dan Struktur Modal Terhadap Nilai Perusahaan. In *Jurnal Balance: Xvi* (Number 1).

Olivia, T., Riswandari, E., Iona Nelson, C., Ilmu Sosial Dan Humaniora, F., & Bunda Mulia Koresponden, U. (2025). Nilai Perusahaan Yang Dipengaruhi Oleh Esg Score, Retention Ratio Dan Ukuran Perusahaan. *Manajemen Dan Akuntansi*, *28*(1). Https://Doi.Org/10.35591/Wahana.V

Pereira, P., Céu Cortez, M., & Silva, F. (2018). *Socially Responsible Investing And The Performance Of European Bond Portfolios*.

Prabawati, P. I., & Rahmawati, I. P. (2022). The Effects Of Environmental, Social, And Governance (Esg) Scores On Firm Values In Asean Member Countries. *Jurnal Akuntansi Dan Auditing Indonesia*, *26*(2), 2022. Https://Doi.Org/10.20885/Jaai.Vol26.I

Putu, I. A., Paramitha, C., Devi, S., Ekonomi, J., & Akuntansi, D. (2024). Pengaruh Enviromental Social Governance (Esg) Score Dan Struktur Modal Terhadap Nilai Perusahaan. In *Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha* (Vol. 15). Www.Ksei.Co.Id,

Sany, S., Novica, C., & Valentina, C. (2024). Do Board Multiple Directorships And Esg Score Drive Firm Value? Study Of Non-Financial Companies In Thailand. *Jurnal Akuntansi Dan Keuangan*, *26*(1), 67–76. Https://Doi.Org/10.9744/Jak.26.1.67-76

Sofiani, L., & Siregar, E. M. (2022). Analisis Pengaruh Roa, Cr Dan Dar Terhadap Nilai Perusahaan Sektor Makanan Dan Minuman. *Jurnal Ilmiah Akuntansi Kesatuan*, *10*(1), 9–16. Https://Doi.Org/10.37641/Jiakes.V10i1.1183

Suryatna, I. K. D. (2023). The Effect Of Institutional Ownership, Sales Growth, Firm Size On Tax Avoidance With Corporate Social Responsibility As A Moderating Variable. *International Journal Of Social Science And Business*, *7*(3), 618–629. Https://Doi.Org/10.23887/Ijssb.V7i3.55757

Tarmuji, I., Maelah, R., & Tarmuji, N. H. (2016). The Impact Of Environmental, Social And Governance Practices (Esg) On Economic Performance: Evidence From Esg Score. *International Journal Of Trade, Economics And Finance*, *7*(3), 67–74. Https://Doi.Org/10.18178/Ijtef.2016.7.3.501

Xaviera, A., Rahman, A., Program,), Akuntansi, S., Ekonomi, F., Bisnis, D., & Artikel, P. (2023). Pengaruh Kinerja Esg Terhadap Nilai Perusahaan Dengan Siklus Hidup Perusahaan Sebagai Moderasi : Bukti Dari Indonesia. *Jurnal Akuntansi Bisnis*, *16*(2), 226–247. Https://Doi.Org/10.30813/Jab.V16

Zhong, S., Hou, J., Li, J., & Gao, W. (2022). Exploring The Relationship Of Esg Score And Firm Value Using Fsqca Method: Cases Of The Chinese Manufacturing Enterprises. *Frontiers In Psychology*, *13*. Https://Doi.Org/10.3389/Fpsyg.2022.1019469