Do ESG Score, Firm Value, and Gender Diversity Enhance Corporate Performance? Evidence from Emerging Asia-Pacific Industrial Firms

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ABSTRACT

This study investigates the effect of Environmental, Social, and Governance (ESG) score, firm value, and gender diversity on corporate performance, measured by Return on Assets (ROA), in the industrial sector of emerging Asia-Pacific markets. Using a sample of publicly listed companies, the research aims to provide empirical evidence on how sustainability practices, market valuation, and board diversity contribute to financial performance. ESG scores are applied as a proxy for corporate sustainability, while firm value reflects investors' perception of growth potential, and gender diversity is considered an indicator of inclusivity in corporate governance. The study employs quantitative analysis to examine the relationships among these variables. The findings are expected to demonstrate whether ESG initiatives and gender diversity complement firm value in driving profitability. This research contributes to the growing literature on sustainable finance by highlighting the role of non-financial factors in shaping firm performance in emerging markets. The results provide insights for managers, policymakers, and investors regarding the strategic importance of ESG and diversity in achieving long-term competitiveness.

Keywords - ESG Score, Firm Value, Gender, Financial Performance

INTRODUCTION

In recent years, the global business environment has placed greater emphasis on the integration of Environmental, Social, and Governance (ESG) practices into corporate strategies. ESG performance is increasingly viewed as a critical driver of long-term competitiveness, helping firms manage risks, enhance transparency, and create value for stakeholders. Companies in emerging Asia-Pacific markets, particularly within the industrial sector, face growing pressure to strengthen sustainability initiatives as investors and regulators demand higher accountability (Purbasari & Rokhim, 2024).

Empirical studies have shown that ESG practices can positively influence firm performance through multiple channels. By adopting sustainable operations, companies may reduce costs, improve efficiency, and build stronger reputations that ultimately lead to higher profitability. Research across ASEAN+3 countries demonstrates that strong ESG ratings are associated with improved return on assets (ROA) and reduced cost of capital, suggesting that sustainability initiatives are financially beneficial beyond reputational outcomes (Purbasari & Rokhim, 2024).
Parallel to ESG, firm value—often proxied through market-based indicators—reflects how investors perceive growth prospects and sustainability readiness. Studies have revealed that firms with higher market valuations are better positioned to leverage resources for long-term performance, including the adoption of ESG strategies. For emerging markets, this linkage is especially relevant as firms seek to balance growth ambitions with stakeholder expectations (Masditok et al., 2025).

Another crucial factor influencing financial outcomes is gender diversity within corporate leadership. A growing body of literature emphasizes that diverse boards contribute to better decision-making, improved governance, and enhanced responsiveness to stakeholder needs. Evidence from Malaysia, for instance, shows that gender diversity not only improves firm performance directly but also strengthens the relationship between ESG engagement and profitability (Board Gender Diversity Malaysia, 2025).

Within the ASEAN region, gender diversity has been increasingly promoted as part of broader governance reforms. Khunkaew et al. (2023) found that gender-diverse boards and sustainability reporting both play a significant role in enhancing firm value and financial performance. These findings highlight the interplay between inclusivity, transparency, and profitability, especially within industrial firms operating in highly competitive markets.

Nonetheless, research outcomes remain mixed, with some studies reporting limited or non-significant effects of gender diversity on firm performance. In Indonesia, for example, ESG disclosure was positively associated with ROA, but gender diversity did not significantly moderate this relationship (Fair Value, 2023). Similarly, evidence from China suggests that institutional and cultural contexts may shape the effectiveness of gender diversity in strengthening ESG-related outcomes (Gender Diversity in China, 2025).

Despite the increasing volume of research, there is still a scarcity of studies focusing specifically on the industrial sector in emerging Asia-Pacific economies. The industrial sector plays a critical role in economic development and environmental sustainability, yet it faces unique challenges, including high resource intensity, regulatory pressures, and global supply chain dependencies. Understanding how ESG practices, firm value, and gender diversity collectively shape financial performance in this sector is therefore essential to advancing sustainable development goals in the region.

Building on this context, the present study aims to examine the influence of ESG score, firm value, and gender diversity on corporate performance measured by ROA within the industrial sector of emerging Asia-Pacific markets. This research contributes to the sustainability and corporate governance literature by providing empirical evidence from a region where such studies remain underexplored. The findings are expected to offer practical insights for managers, policymakers, and investors on how sustainability strategies and inclusive governance can be leveraged to enhance long-term firm performance.

LITERATURE REVIEW

The integration of sustainability practices in corporate strategy has gained significant attention, especially through the measurement of Environmental, Social, and Governance (ESG) performance. ESG serves as a comprehensive indicator of how firms manage environmental impacts, social responsibilities, and governance structures. According to stakeholder theory, companies that align their strategies with sustainability expectations are better positioned to maintain legitimacy, reduce risks, and secure long-term profitability (Freeman, 1984). This suggests that ESG practices may have a direct impact on financial performance.

Empirical research supports the positive linkage between ESG performance and firm profitability. Purbasari and Rokhim (2024) found that companies in ASEAN+3 with strong ESG ratings benefit from improved ROA and lower cost of capital. Similarly, Masditok et al. (2025)

demonstrated that ESG engagement in ASEAN firms significantly influences financial outcomes, reinforcing the idea that sustainability investments create tangible economic benefits. These findings provide a strong rationale for the first hypothesis, which posits that ESG Score positively affects financial performance.

From a resource-based view (RBV), ESG initiatives can be seen as intangible assets that strengthen firms' competitive advantage. By fostering innovation, improving efficiency, and building stronger relationships with stakeholders, companies can transform ESG into strategic capabilities that enhance performance (Barney, 1991). Thus, firms with higher ESG scores may outperform their peers in terms of profitability and long-term growth. Beyond ESG, firm value is another critical determinant of financial performance. Firm value, often proxied through measures such as Tobin's Q or market capitalization, reflects investors' perceptions of a company's growth potential and future cash flows. Higher firm value indicates stronger investor confidence and greater access to capital, both of which can support operational expansion and financial stability (Fama & French, 1998).

Prior studies in emerging markets confirm the relationship between firm value and financial performance. Khunkaew et al. (2023) reported that higher firm value in ASEAN industrial firms correlates positively with profitability indicators such as ROA and ROE. Similarly, Chen and Chen (2011) found that firm value is a predictor of future performance, as market expectations often drive strategic investments that translate into financial returns. These findings support the second hypothesis, which argues that firm value positively influences financial performance.

Agency theory also provides a useful lens for understanding this relationship. When firm value is high, managers face stronger monitoring by investors and capital market participants, incentivizing them to adopt efficient strategies that maximize returns (Jensen & Meckling, 1976). This dynamic suggests that market valuation acts as both a signal of firm quality and a mechanism that aligns managerial decisions with financial performance outcomes.

Gender diversity has also emerged as an important dimension of corporate governance that may affect firm performance. The presence of women in leadership roles contributes to broader perspectives, more inclusive decision-making, and enhanced monitoring of managerial actions. According to upper echelons theory, diverse leadership teams can process information more effectively and develop innovative solutions that strengthen firm competitiveness (Hambrick & Mason, 1984).

Empirical evidence supports the positive role of gender diversity in enhancing financial outcomes. A study in Malaysia found that board gender diversity significantly improves firm performance and reinforces the link between ESG practices and profitability (Board Gender Diversity Malaysia, 2025). Similarly, Khunkaew et al. (2023) reported that gender-diverse boards in ASEAN firms strengthen corporate governance, improve transparency, and positively affect both firm value and ROA.

However, research findings remain mixed across contexts. For instance, Fair Value (2023) observed that gender diversity did not significantly moderate the relationship between ESG disclosure and financial performance in Indonesian firms. Likewise, studies in China suggest that institutional and cultural contexts may influence whether gender diversity translates into improved financial outcomes (Gender Diversity in China, 2025). These variations highlight the need for further investigation, particularly in emerging Asia-Pacific markets.

Taken together, the literature suggests that ESG practices, firm value, and gender diversity play significant roles in shaping financial performance, though their effects may vary depending on regional and sectoral contexts. By focusing on the industrial sector in emerging Asia-Pacific economies, this study seeks to contribute to ongoing debates by examining how these three factors jointly influence profitability measured by ROA. This review provides a solid foundation for the proposed hypotheses, which anticipate positive effects of ESG score and firm value, and a significant effect of gender diversity, on financial performance.

ESG Score has a positive effect on financial performance

SG performance is increasingly recognized as an indicator of a firm's commitment to sustainability, governance quality, and stakeholder engagement. Stakeholder theory argues that companies which integrate environmental, social, and governance principles are more likely to gain legitimacy, reduce risks, and strengthen their reputations (Freeman, 1984). From the resource-based view, ESG engagement represents an intangible resource that can foster innovation, improve efficiency, and ultimately generate competitive advantages that enhance profitability (Barney, 1991). Empirical studies in Asia-Pacific support the positive association between ESG and financial performance. For instance, Purbasari and Rokhim (2024) demonstrated that ESG scores in ASEAN+3 firms are significantly linked to higher return on assets (ROA) and lower cost of capital. Likewise, Masditok et al. (2025) found that ESG practices positively affect ROA in ASEAN industrial companies, confirming the financial benefits of sustainability adoption. These findings reinforce the expectation that stronger ESG performance leads to improved financial outcomes.

H1: ESG Score has a positive effect on financial performance

Firm Value has a positive effect on financial performance

Firm value reflects investors' perceptions of growth potential and managerial effectiveness, often measured through Tobin's Q or market capitalization. Agency theory suggests that high firm value implies closer monitoring by investors, which encourages managers to adopt strategies that maximize shareholder returns (Jensen & Meckling, 1976). In addition, firms with higher valuations have greater access to financial resources, enabling them to invest in innovation and efficiency improvements that enhance financial performance (Fama & French, 1998). Empirical evidence shows that firm value positively influences profitability in emerging markets. Khunkaew et al. (2023) revealed that higher firm value in ASEAN firms was associated with improved ROA and ROE, emphasizing the importance of market confidence in driving financial success. Similarly, Chen and Chen (2011) reported that firm value is a strong predictor of financial performance, as it reflects market expectations that often translate into future profitability. Therefore, higher firm value is expected to contribute positively to financial performance.

H2: Firm Value has a positive effect on financial performance

Gender Diversity has an effect on financial performance

Gender diversity in leadership and governance structures has been argued to improve decision-making, monitoring, and organizational performance. Upper echelons theory posits that diverse management teams are better equipped to process information, consider multiple perspectives, and adopt innovative strategies that enhance firm outcomes (Hambrick & Mason, 1984). Moreover, gender-diverse boards are often perceived as more transparent and socially responsible, which may strengthen stakeholder trust and improve financial performance. Several empirical studies confirm the relevance of gender diversity in shaping firm outcomes. In the ASEAN context, Khunkaew et al. (2023) found that gender diversity, together with sustainability reporting, significantly improves firm value and ROA. Similarly, a study on Malaysian firms revealed that board gender diversity not only has a direct positive effect on performance but also reinforces the impact of ESG practices on profitability (Board Gender Diversity Malaysia, 2025). However, some evidence suggests mixed results depending on institutional settings, highlighting the need to examine gender diversity's role in emerging Asia-Pacific industries.

H3: Gender Diversity has an effect on financial performance

METHODOLOGY

In this section, it describes the population and sample of the study, the variables used in conjunction with the measurements, as well as the model of the research conducted. The study examines the Emerging Industries sector in Asia Pacific listed on S&P Capital IQ by 2024. The overall population includes 447 companies. The sampling process is carried out by the purposive sampling method. The sampling criteria are companies that do not publish full research variable data on Emerging Asia Pacific industrial sector companies listed on S&P Capital IQ in 2024. With this criterion, there are 57 companies that have been eliminated. So, the total research sample is 390 companies. This study uses 3 types of variables consisting of one dependent variable, three independent variables and one control variable. The following is presented in a table containing some variables and their measurements.

Table 1.
Variable and Measurement

Variable	Simbol	Measurement
Profitability	Y_ROA	(Net Profit/Total Assets) x 100%
ESG Score	X1_ESG	Total scores ESG disclosure
Firm Value	X2_PBV	Price / Book Value
Female CEO	X3_F.CEO	Dummy 1 for companies with a female CEO and 0 otherwise.
Total CEO	VK_Total CEO	Total CEO

Source: Author (2025)

The analysis method was used in this study to see the magnitude of the influence of independent variables, namely ESG disclosure, Firm Value, and Female CEO on the dependent variable, namely Profitability, using multiple linear regression analysis. Data processing was carried out using IBM SPSS Statistics Version 22 software. The regression model is outlined in the following formulation:

$$Y\_ROA = \beta 0 + \beta 1X1\_ESG + \beta 2X2\_PBV + \beta 3X3\_F.CEO + \varepsilon i$$

Information:

ROA: Profitability;

X1_ESG: ESG Disclosure Score;

X2_PBV: Firm Value;

X3_F.CEO: Female CEO;

εi: Error term

RESULTS

Table 2. Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std Deviation
ESG Score	5	83	27.82	13.973
Firm Value	0.08	73.99	3.51	5.986
Female CEO	0	1	0.88	0.329
Total CEO	3	151	24.75	22.046
ROA	-30.95	36.28	3.31	4.506
Observasi	390	390	390	390

Source: SPSS Output 22, 2025

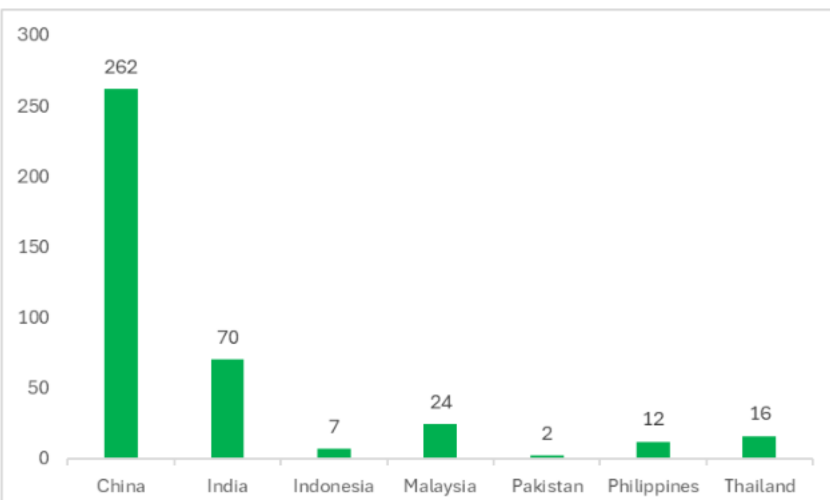

Figure 1 is a sample breakdown of the study: China is the largest country with ESG reporting industry and completeness. While Pakistan and Indonesia are countries with small sample size

Figure 1: Industrial Distribution in 2024

The Simultaneous Test was carried out to see that the independent variables included in the research model had an amount of influence on the dependent variables simultaneously.

Table 3. Multicollinearity Test

Variables	Tolerance	VIF

ESG Score	0.820	1.219
Firm Value	0.921	1.086
Female CEO	0.972	1.029

Source: SPSS Output 22, 2025

The results of the classical assumption test indicate that the data has passed the multicollinearity test. All independent variables have tolerance values above 0.1 and Variance Inflation Factor (VIF) values below 10. These findings suggest that there is no multicollinearity among the independent variables used in the regression model. Therefore, the regression analysis can proceed without concern for distortion caused by multicollinearity, ensuring the reliability of the parameter estimates and the overall model interpretation.

Table 4. Autocorrelation Test

Durbin Watson
2.085

Source: SPSS Output 22, 2025

Based on the results of the classical assumption test for autocorrelation, the Durbin-Watson (DW) value obtained is 2.085, while the upper limit (DU) is 1.844. Since DW > DU and DW < (4 – DU), it can be concluded that the regression model is free from autocorrelation. Therefore, the data meet the autocorrelation assumption, indicating that the residuals are independent and the model is suitable for further analysis.

Table 5. Heteroscedasticity Test

Variables	Sig
ESG Score	.248
Firm Value	.060
Female CEO	.749

Source: SPSS Output 22, 2025

This study also passes the heteroscedasticity test, as indicated by the significance values (Sig.) of all independent variables being greater than 0.05. This result confirms that there is no heteroscedasticity in the regression model, meaning the variance of the residuals is constant. Therefore, the model fulfills the assumption of homoscedasticity and is appropriate for further statistical analysis. However, the data processing results indicate that the data did not pass the normality test. This suggests that the residuals are not normally distributed, which may affect the validity of the statistical inferences drawn from the regression model.

Table 6. F Test

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	980.353	4	245.088	13.638	0.000
Residual	6918.628	385	17.970		
Total	7898.982	389			

Source: SPSS Output 22, 2025

Referring to the results of the F test for the regression model, the F value is 13.638 and the p value is 0.000. A p value lower than 0.05 indicates that the variable ESG score, Firm Value, and Female CEO affect Profitability simultaneously. The determination test is carried out to determine the magnitude of the variation of independent variables that can affect the dependent variables. The measurement of the magnitude of the results was obtained with a value range of 0-1.

Table 7.
Coefficient Determination Test (R^2)

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.352	.124	.115	4.23916

Source: Ouput SPSS 22, 2025

Based on the results in table 3 above, the value of the determination coefficient was obtained of 0.115. These results indicate the limitations of the dependent variable, namely ROA, which can be explained by independent variables, namely the ESG score, firm value, and female CEO of only 11.5%. With a difference of 88.5% which can be explained using other factors that are outside the model in this study.

To determine the magnitude of the influence of each independent variable on the dependent variable, partial testing or t-test is used.

Table 8.
Partial Test (t-test)

Model	Unstandarized Coefficients		Standar Coefficients		
	B	Std.Error	Beta	t	Sig.
(Constant)	2.063	.717		2.879	.004
ESG Score	.044	.017	.137	2.593	.010
Firm Value	.233	.037	.309	6.217	.000
Female CEO	-.805	.663	-.059	-1.215	.225

Source: SPSS Output 22, 2025

Based on table 8 above, it shows that for the ESG score variable has a significant value of 0.004 < 0.05, this states that hypothesis 1 is accepted, Firm Value has a significant value of 0.000 < 0.05, this states that hypothesis 2 is accepted, and Female CEO has a significant value of 0.225 > 0.05 which concludes that hypothesis 3 is rejected.

DISCUSSION

The findings of this study suggest that ESG scores play a significant role in enhancing financial performance, measured by ROA, in emerging Asia-Pacific industrial firms. This result aligns with stakeholder theory, which emphasizes that firms engaging in sustainable practices are more likely to gain stakeholder trust, reduce risks, and achieve stronger financial outcomes (Freeman, 1984). Consistent with prior studies (Purbasari & Rokhim, 2024; Masditok et al., 2025), the positive effect of ESG reinforces the notion that sustainability is not only a matter of compliance but also a strategic investment that improves efficiency, reputation, and profitability.

Firm value was also found to have a positive relationship with financial performance, confirming its importance as a signal of market confidence and managerial effectiveness. This finding resonates with agency theory, which suggests that higher firm value reflects stronger monitoring from investors, leading managers to pursue efficient strategies that maximize shareholder wealth (Jensen & Meckling, 1976). Prior evidence in ASEAN (Khunkaew et al., 2023) and global studies (Chen & Chen, 2011) similarly highlight that higher valuations enable firms to access capital resources more effectively, thus driving operational improvements and financial success.

The results further indicate that gender diversity has a meaningful effect on financial performance, supporting the upper echelons perspective that diverse leadership teams enhance decision-making and governance effectiveness (Hambrick & Mason, 1984). This finding is in line with Khunkaew et al. (2023), who reported that gender-diverse boards in ASEAN improve both firm value and profitability. However, it also contrasts with some studies in Indonesia and China that found non-significant or context-dependent results (Fair Value, 2023; Gender Diversity in China, 2025). This suggests that the impact of gender diversity may be shaped by institutional and cultural contexts, underlining the importance of examining these dynamics within the Asia-Pacific industrial sector.

CONCLUSION

This study provides empirical evidence that ESG score, firm value, and gender diversity significantly influence financial performance, measured by ROA, in industrial sector firms across emerging Asia-Pacific markets. The positive effect of ESG supports stakeholder theory, highlighting that sustainable practices not only enhance corporate reputation but also improve operational efficiency and profitability. Similarly, the finding that firm value contributes positively to financial outcomes underscores the importance of market confidence and investor monitoring in shaping managerial decisions and resource allocation.

Moreover, the results reveal that gender diversity within corporate leadership has a meaningful impact on financial performance, in line with the upper echelons theory. Diverse boards enhance governance quality, reduce decision-making biases, and provide broader perspectives that improve strategic outcomes. These findings collectively suggest that sustainable practices, strong valuation, and inclusive governance structures are not isolated drivers but interrelated factors that strengthen firm competitiveness in the Asia-Pacific industrial sector.

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REFERENCES

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

Board Gender Diversity Malaysia. (2025). Board gender diversity and firm performance in emerging Asia. Journal of Governance and Regulation

Chen, M. C., & Chen, S. J. (2011). The relationship between firm value and financial performance. International Research Journal of Finance and Economics, 76, 47–59.

Fair Value. (2023). The effect of ESG disclosure on financial performance with gender diversity as moderating variable. Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan, 5(9), 3634-3642.

Fama, E. F., & French, K. R. (1998). Taxes, financing decisions, and firm value. The Journal of Finance, 53(3), 819–843. https://doi.org/10.1111/0022-1082.00036

Freeman, R. E. (1984). Strategic management: A stakeholder approach. Boston: Pitman.

Gender Diversity in China. (2025). Gender diversity, ESG performance, and firm outcomes: Evidence from emerging Asia. Journal of Asian Economics.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9(2), 193–206. https://doi.org/10.5465/amr.1984.4277628

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Khunkaew, R., Wichianrak, J., & Suttipun, M. (2023). Sustainability reporting, gender diversity, firm value and corporate performance in ASEAN region. Cogent Business & Management, 10(1), 1–17.

Masditok, T., Gunarsih, T., Geraldina, I., & Wihadanto, A. (2025). The Influence of ESG on Return on Asset ASEAN Companies 2013–2023. Jurnal Manajemen dan Bisnis Universitas Langlangbuana.

Purbasari, A., & Rokhim, R. (2024). How Do ESG Ratings Impact Firms' Profitability and Cost of Capital? Evidence from ASEAN+3. Journal of Management for Global Sustainability, 12(1), 1–21.