

DOI: <https://doi.org/10.38035/dijefa.v7i3><https://creativecommons.org/licenses/by/4.0/>

ESG Disclosure and Firm Value: The Moderating Role of Competitive Advantage

Rania Muadah^{1*}, Abdul Rohman²

¹Universitas Diponegoro, Semarang, Indonesia, raniamuadah@gmail.com

²Universitas Diponegoro, Semarang, Indonesia, abdulrohman@lecturer.undip.ac.id

*Corresponding Author: raniamuadah@gmail.com¹

Abstract: Environmental, social, and governance (ESG) disclosure has been increasingly recognized as a significant determinant of firm value; however, its effectiveness is believed to be influenced by the firm's internal conditions, particularly its competitive advantage. This study aims to examine the effect of ESG disclosure on firm value and to investigate the moderating role of competitive advantage in this relationship. The research sample comprises companies listed on the ESG Quality 45 KEHATI Index of the Indonesia Stock Exchange over the period 2021–2024. Moderated regression analysis was employed using EViews software. The results indicate that ESG disclosure positively affects firm value, suggesting that sustainability transparency enhances stakeholder trust and drives higher market valuations. Furthermore, competitive advantage is found to significantly strengthen the positive effect of environmental, ESG disclosure on firm value, indicating that firms with stronger competitive positions are better able to leverage their sustainability disclosure in creating value for stakeholders. These findings enrich the application of stakeholder theory by establishing that competitive advantage serves as a critical boundary condition that determines the effectiveness of environmental, social, and governance disclosure in enhancing firm value.

Keywords: Environmental, Social, and Governance (ESG) Disclosure, ESG Disclosure, Firm Value, Competitive Advantage.

INTRODUCTION

Global environmental shifts — including climate change, widespread deforestation, pollution, and the depletion of natural resources — have emerged as critical threats to the long-term sustainability of both human civilization and Earth's ecosystems. In response, landmark international frameworks such as the Paris Agreement and the Sustainable Development Goals (SDGs) have been established to accelerate the transition toward a green and sustainable economy (Shaqour & Farzaneh, 2021). These frameworks place considerable responsibility on the business sector to adopt practices that genuinely reflect environmental stewardship and social accountability.

Within the corporate context, firm valuation has progressively shifted beyond purely financial metrics to incorporate non-financial considerations, particularly sustainability performance as reflected in Environmental, Social, and Governance (ESG) disclosure (Au et al., 2023). By communicating ESG-related information, companies enable investors and other stakeholders to evaluate how effectively risks are managed and sustainability opportunities are captured (Fu & Li, 2023). A robust level of ESG disclosure can strengthen corporate reputation, bolster investor confidence, and support long-term value creation.

However, prior empirical studies reveal inconsistencies regarding the effect of ESG disclosure on firm value Rohendi et al., (2024). Alareeni & Hamdan, (2020), Aydoğmuş et al., (2022), Habib et al., (2025), Samy El-Deeb et al., (2023) — have documented a significant positive relationship between ESG disclosure and firm value. Conversely, Raja Ahmad et al., (2021) reported either negative or statistically insignificant results. These contradictory findings suggest that additional factors may condition the ESG–firm value relationship, pointing to a research gap that warrants further investigation through the lens of relevant moderating variables.

This study is anchored in stakeholder theory, which posits that firms are responsible not only to shareholders but to a broader constituency — including employees, investors, communities, and customers (Freeman, 1984). ESG disclosures serve as a vehicle through which companies communicate their sustainability efforts and social commitments, thereby reinforcing stakeholder trust and enhancing corporate reputation. Such outcomes may yield tangible benefits, including improved access to capital, greater employee motivation, and stronger customer loyalty

This research extends the work of Habib et al. (2025) by refining the research model to examine the direct effect of ESG disclosure on firm value, while introducing competitive advantage as a moderating variable. Competitive advantage may either amplify or attenuate the relationship between ESG disclosure and firm value. It serves as a diagnostic indicator of a firm's current standing and future prospects (Wijayanto et al., 2019). Companies equipped with a strong competitive position are better positioned to leverage ESG as a strategic instrument — enhancing investment appeal, mitigating risk, and cultivating a positive public image (Dkhili, 2024). Consequently, such firms are more likely to realize the full benefits of ESG implementation, thereby supporting improved market valuation and a stronger strategic position.

The persistence of conflicting findings in the existing literature, combined with limited research conducted in the Indonesian context — particularly concerning the moderating role of competitive advantage — underscores the need for further inquiry. Accordingly, this study aims to analyze the influence of ESG disclosure and green finance on firm value, with competitive advantage incorporated as a moderating variable.

From a stakeholder theory perspective, ESG disclosures that receive support from key stakeholders tend to generate positive spillovers for business activities, ultimately driving firm value upward (Aydoğmuş et al., 2022). Companies that actively fulfill stakeholder expectations regarding ESG performance are better positioned to sustain their operations over time — a notion consistent with the central tenet of stakeholder theory.

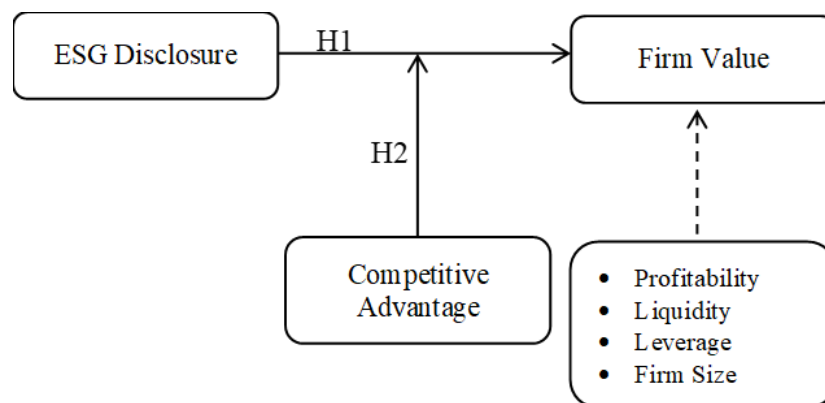
Building on findings from Alareeni & Hamdan (2020), Aydoğmuş et al. (2022), Habib et al. (2025), dan Samy El-Deeb et al. (2023), which collectively demonstrate a significant positive association between ESG disclosure and firm value, this study posits that stronger ESG disclosure enhances stakeholder trust and support, thereby elevating firm value.

H₁: ESG disclosure has a positive effect on firm value

Competitive advantage refers to a firm's capacity to generate superior value relative to its rivals by effectively mobilizing resources and implementing strategic initiatives. Through a

stakeholder theory lens, ESG disclosure coupled with a strong competitive position can enhance the credibility of disclosed information, deepening investor and stakeholder trust. Firms with well-established competitive advantages tend to benefit from lower cost of capital, as their ESG disclosures are perceived as credible signals of commitment to sustainable business conduct berkelanjutan (Mohammad & Wasiuzzaman, 2021). Habib et al. (2025), Mohammad & Wasiuzzaman (2021), Widayanto et al. (2023), Wijayanto et al. (2019) all affirm that competitive advantage strengthens the relationship between ESG disclosure and firm value. It follows that firms with stronger competitive positions are better able to extract maximum value from ESG disclosure compared to those with lower competitive standing.

H₂: Competitive advantage moderates and strengthens the relationship between ESG disclosure and firm value.



Source: Research Results

Figure 1. Conceptual Framework

METHOD

This study adopts a quantitative research design, drawing on secondary data sourced from annual reports, sustainability reports, and the Bloomberg database. The population selected is non-financial companies listed on the ESG Quality 45 KEHATI Indeks of the Indonesia Stock Exchange in 2021-2024 because the companies in these indices have been selected based on strong Environmental, Social, and Governance (ESG) performance. Sample selection was conducted using purposive sampling, ensuring that all included observations satisfy the defined research criteria — specifically, non-financial companies that maintained continuous listing on the ESG Quality 45 KEHATI Index throughout the entire 2021–2024 observation window.

The independent variable in this study is ESG disclosure, defined as the extent to which companies publicly communicate non-financial information pertaining to their environmental, social, and governance practices. ESG scores are sourced from Bloomberg, which constructs its assessments in accordance with the Global Reporting Initiative (GRI) and Investor Stewardship Group (ISG) standards.

The dependent variable is firm value, conceptualized as the market's assessment of a company's performance and future growth potential. Firm value is proxied by Tobin's Q ratio, calculated as follows:

$$\text{Tobin's Q} = \frac{\text{Equity Market Value} + \text{Liabilities Market Value}}{\text{Equity Book Value} + \text{Liabilities Book Value}}$$

The moderating variable is competitive advantage, measured as the spread between Return on Invested Capital (ROIC) and Weighted Average Cost of Capital (WACC):

$$\text{COMPADV} = \text{Return on Invested Capital (ROIC)} - \text{Weighted Average Cost of Capital (WACC)}$$

To minimize potential estimation bias, the model incorporates several control variables, including profitability, liquidity, leverage, and firm size (Al-Tarawneh *et al.*, 2024; Aydoğmuş *et al.*, 2022; Habib *et al.*, 2025)

Profitability reflects a firm's capacity to generate earnings from its core operations, measured by Return on Assets (ROA):

$$ROA = \frac{\text{Net income}}{\text{Total assets}}$$

Liquidity captures the firm's ability to meet its short-term financial obligations, proxied by the Current Ratio:

$$CR = \frac{\text{Current assets}}{\text{current liabilities}}$$

Leverage denotes the proportion of debt financing within the firm's capital structure, measured by the Debt-to-Equity Ratio (DER):

$$DER = \frac{\text{Short and Long Term Debt}}{\text{Total Assets}}$$

Firm Size serves as a proxy for organizational scale, operationalized as the natural logarithm of total assets:

$$SIZ = \text{Ln (Total Assets)}$$

Hypothesis testing was conducted using Moderated Regression Analysis (MRA). Prior to regression estimation, the classical assumption tests were performed — encompassing normality, multicollinearity, heteroscedasticity, and autocorrelation — to verify the appropriateness and reliability of the model. The analysis then proceeded to examine both the direct effect of ESG disclosure on firm value and the interaction term $\text{ESG} \times \text{Competitive Advantage}$, the latter serving to assess the moderating role of competitive advantage in that relationship. The regression equations employed are as follows:

$$FV = \alpha + \beta_1 \text{ ESG} + \beta_2 (\text{ESG} * \text{COMPADV}) + \beta_3 \text{ ROA} + \beta_4 \text{ CR} + \beta_5 \text{ DER} + \beta_6 \text{ SIZ} + e$$

α	= Constant
FV	= Firm Value
ESG	= ESG Disclosure
ROA	= Profitability
CR	= Liquidity
DER	= Leverage
SIZ	= Firm Size
e	= Residual

RESULTS AND DISCUSSION

Classical Assumption Test

Tabel 1. Normality Test Result

Jarque – Bera	Probability
0,8059	0,908

Source: output Eviews 13

Based on table 1, it is known that the probability using Jarque-Bera. test result is 0.908. This figure is higher than the 0.05 significance limit. Thus, the data used is interpreted as normally distributed and considered good quality.

Tabel 2. Multicollinearity Test Results

Variabel	VIF
ESG	1.401
ESG_C_COMPADV	4.663
ROA	6.270
CR	1.895
DER	2.244
SIZ	1.663

Source: output Eviews 13

From the test data in table 2, it is found that all the independent variables studied have a VIF value below 10. Therefore, it can be concluded that the relationship between the independent variables has fulfilled the multicollinearity assumption test because there is no multicollinearity.

Table 3. Heteroscedasticity Test Results

F-statistic	Prob. F	Obs*R-squared	Prob. Chi-Square(6)
1.607	0.162	9.262	0.159

Source: output Eviews 13

The heteroscedasticity test uses the Glejser test to identify misalignment in the residuals between observations. Table 3 contains data showing the Prob. Chi-Square (Obs*R-squared) is 0,159 and Prob. F-statistic is 0,162, both of the is above 0.05. Thus, it is concluded that the research sample has fulfilled the heteroscedasticity assumption test and heteroscedasticity symptoms do not occur.

Tabel 4. Autocollinearity Test Result

Durbin Watson
1.812

Source: output Eviews 13

The Durbin Watson (DW) test is used in the autocorrelation test to determine the correlation between the value of prediction errors of a certain period of observation with the past period. . The data in table 4 shows 1.812 as the DW value obtained. Then, based on the DW table value, DL 1,3981 and Durbin Upper (DU) 1,8052 are obtained ($n = 64$, $k = 6$). From these data, it is analysed if the DW value is above DU and below 4-DU (2,1948), so it is concluded that this study has fulfilled the autocollinearity assumption test because there is no autocorrelation found.

Hypothesis Test

Tabel 5. Test Results of the Coefficient of Determination

R-squared	Adjusted R-squared
0. 8819	0.8681

Source: output Eviews 13

The adjusted R^2 value in table 5 of 0.8819 means that the independent variable contributes 88,19% in influencing the dependent variable. In other words, the variable ESG disclosure, competitive advantage, profitability, liquidity, leverage, firm size and the rest is explained by other variables.

Tabel 6. F Statistical Test Results

F-statistic	Prob
51.3557	0.0000

Source: output Eviews 13

In determining whether the regression model is capable of being used in estimating the dependent variable, the F-test is used. Based on the test results on table 6, the significance value in the research sample is below 0.05, namely 0.00. This means that one or all of the independent variables used simultaneously affects the dependent variable.

Tabel 7. T Statistical Test Results

Variable	t-Statistic	Prob.	Description
ESG	0.0127	0.054	Significant (+)
ESGxCOMPADV	0.000	0.004	Significant (+)
ROA	0.004	0.001	Significant (+)
CR	0.074	0.063	Not Significant
DER	0.004	0.242	Not Significant
SIZ	-0.109	0.265	Not Significant

Source: output Eviews 13

The t test is carried out to prove whether the dependent variable is influenced by each independent variable. If the Significance value <0.05 , it means that there is a partial influence of the independent variable on the dependent variable. The variables of ESG and interaction of moderation variable (ESGxCOMPADV) indicated by the significance value which is below 0.05. Thus, it can be concluded that ESG and moderation of competitive advantages are able to support the firm value by the company. Among the control variables, profitability (ROA) shows a significant positive effect on firm value with a probability value of 0.001, indicating that higher profitability enhances firm value. In contrast, liquidity (CR), leverage (DER), and firm size (SIZ) do not show significant effects on firm value, with probability values of 0.063, 0.242, and 0.265, respectively, all exceeding the 0.05 significance threshold.

The results indicate that ESG disclosure has a positive and significant effect on firm value at the 5% significance level, supporting the first hypothesis. This finding suggests that companies with higher levels of ESG disclosure tend to be valued more favorably by the market. An examination of the observed data provides a concrete illustration of this pattern. INCO and DSNG, two companies with comparable average profitability levels over the 2021–2024 period, exhibit markedly different ESG scores — with INCO consistently scoring in the range of 64 to 70, compared to DSNG's score of 39 to 47. Correspondingly, INCO maintained a higher average firm value than DSNG throughout the observation period, despite their similar profitability levels. This pattern suggests that, when profitability is held relatively constant, companies with stronger ESG disclosure tend to command higher market valuations. These

results are in line with prior empirical evidence Alareeni & Hamdan (2020), Aydoğmuş *et al.* (2022), Habib *et al.* (2025), dan Samy El-Deeb *et al.* (2023) documented a positive relationship between ESG disclosure and firm value.

This finding is consistent with stakeholder theory, which posits that a firm's sustainability depends not solely on maximizing shareholder returns, but on its ability to meet the expectations of a broader range of stakeholders, including employees, creditors, consumers, and the community at large. Companies that engage in comprehensive and transparent ESG disclosure demonstrate a genuine commitment to environmental stewardship, social responsibility, and sound governance. Such commitment fosters greater stakeholder trust and confidence, which is subsequently reflected in higher market valuations.

The results further reveal that competitive advantage significantly and positively moderates the relationship between ESG disclosure and firm value, supporting the second hypothesis. This finding indicates that the positive effect of ESG disclosure on firm value is strengthened when a company possesses a higher level of competitive advantage. This finding suggests that the effect of ESG disclosure on firm value is not uniform across firms, but is strengthened by the level of competitive advantage a firm possesses. Firms with higher competitive advantage are better positioned to convert ESG disclosure into meaningful value creation, as their disclosures are perceived as more credible and reflective of genuine commitment to sustainable business practices by investors and stakeholders. This is consistent with stakeholder theory, which posits that firms with strong competitive positions have greater capacity to simultaneously meet the expectations of multiple stakeholder groups, thereby amplifying the positive signal generated by ESG disclosure in the capital market.

The empirical evidence from this study further supports these findings. Firms such as UNVR and SIDO, which consistently recorded high competitive advantage values throughout the observation period, demonstrated substantially higher Tobin's Q compared to other firms in the sample. In contrast, firms with relatively high ESG scores but negative competitive advantage values, such as ANTM and SMGR, exhibited comparatively lower firm values. This pattern reinforces the notion that ESG disclosure alone is insufficient to drive firm value without being supported by adequate competitive advantage. These findings are in line with Mohammad & Wasiuzzaman (2021), who argued that firms with strong competitive advantage have lower cost of capital as their ESG disclosures are perceived as credible and reflect commitment to sustainable business practices, and Habib *et al.* (2025), who confirmed that competitive advantage significantly moderates the relationship between ESG disclosure and firm performance.

Among the control variables included in the model, profitability as proxied by return on assets (ROA) was found to have a significant positive effect on firm value, indicating that the ability to generate earnings from assets remains a key determinant of market valuation. Meanwhile, liquidity, leverage, and firm size did not demonstrate significant effects on firm value in this study, suggesting that structural financial factors are less influential in shaping investor perception of firm value within the context of this sample. These results imply that in the Indonesian capital market context, firm value is predominantly driven by profitability and the quality of ESG disclosure supported by competitive advantage, rather than by financial structure alone.

CONCLUSION

This study provides empirical evidence that ESG disclosure positively influences firm value among ESG Quality 45 KEHATI Index companies in Indonesia, and that this relationship is meaningfully shaped by the firm's competitive position. The central contribution of this study lies in demonstrating that competitive advantage functions as a significant positive moderator in the ESG disclosure–firm value nexus, meaning that the value-enhancing effect of ESG

disclosure is amplified when firms possess stronger competitive standing. This finding moves beyond simply confirming the direct effect of ESG disclosure on firm value — a relationship that has been widely documented in prior literature — by establishing that the effectiveness of ESG disclosure in generating market value is not uniform across firms, but is contingent upon their underlying competitive capabilities.

From a theoretical standpoint, these findings enrich the application of stakeholder theory in the context of emerging markets by offering a more nuanced understanding of how ESG disclosure creates value. Rather than treating ESG disclosure as a uniformly effective mechanism for building stakeholder trust, this study demonstrates that firms with superior competitive advantage are better positioned to translate their ESG commitments into tangible market value, as their stronger resource base and operational capabilities allow them to implement and communicate ESG practices more substantively to stakeholders. This contributes to the growing body of literature that seeks to identify the boundary conditions under which ESG disclosure generates firm value, particularly in markets where ESG practices and investor awareness are still developing.

For practitioners, these findings suggest that ESG disclosure should not be pursued in isolation, but rather as part of a broader strategy that simultaneously strengthens the firm's competitive position. Companies that invest in both ESG transparency and competitive capabilities are more likely to be rewarded by the market than those that focus on ESG disclosure alone. For policymakers and regulators, the findings underscore the importance of creating an enabling environment — through standardized ESG reporting frameworks and incentives for sustainable competitiveness — that allows firms to leverage their ESG commitments more effectively in generating long-term firm value.

REFERENCES

- Al-Tarawneh, A., Tayeh, M., Iskandrani, M., & Obeidat, M. (2024). The impact of ESG scores on corporate financial performance: A study of non-financial firms listed in the UK. *Asian Economic and Financial Review*, 14(11), 852–867. <https://doi.org/10.55493/5002.v14i11.5229>
- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance (Bingley)*, 20(7), 1409–1428. <https://doi.org/10.1108/CG-06-2020-0258>
- Au, A. K. M., Yang, Y.-F., Wang, H., Chen, R.-H., & Zheng, L. J. (2023). Mapping the Landscape of ESG Strategies: A Bibliometric Review and Recommendations for Future Research. *Sustainability*, 15(24), 16592. <https://doi.org/10.3390/su152416592>
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22, S119–S127. <https://doi.org/10.1016/j.bir.2022.11.006>
- Bloomberg L.P. (2006). *Annual data on ESG Disclosure, Tobin's Q, Return on Invested Capital, Weighted Average Cost of Capital, Return on Asset, Current Ratio, Total Debt to Total Assets, Total Assets for firms that were listed in ESG Quality 45 KEHATI Index from 2010 to 2020*.
- Dkhili, H. (2024). Does environmental , social and governance (ESG) a ff ect market performance? The moderating role of competitive advantage. 34(2), 327–352. <https://doi.org/10.1108/CR-10-2022-0149>
- Freeman, E. (1984). *Strategic management: A stakeholder approach*. MA: Pitman Press.
- Fu, T., & Li, J. (2023). An empirical analysis of the impact of ESG on financial performance: the moderating role of digital transformation. *Frontiers in Environmental Science*, 11(August), 1–11. <https://doi.org/10.3389/fenvs.2023.1256052>
- Habib, A., Oláh, J., Khan, M. H., & Luboš, S. (2025). Does integration of ESG disclosure and

- green financing improve firm performance: Practical applications of stakeholders theory. *Heliyon*, 11(4). <https://doi.org/10.1016/j.heliyon.2025.e41996>
- Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2(February). <https://doi.org/10.1016/j.cesys.2021.100015>
- Raja Ahmad, R. A., Ayob, A. A., Zainon, S., & Probohudono, A. N. (2021). The Influence of Environmental, Social and Governance Reporting on Firm Value: Malaysian Evidence. *International Journal of Academic Research in Business and Social Sciences*, 11(9), 1058–1080. <https://doi.org/10.6007/ijarbss/v11-i9/10877>
- Rohendi, H., Ghozali, I., & Ratmono, D. (2024). Environmental , social , and governance (ESG) disclosure and firm value : the role of competitive advantage as a mediator. *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2023.2297446>
- Samy El-Deeb, M., Ismail, T. H., & El Banna, A. A. (2023). Does audit quality moderate the impact of environmental, social and governance disclosure on firm value? Further evidence from Egypt. *Journal of Humanities and Applied Social Sciences*, 5(4), 293–322. <https://doi.org/10.1108/jhass-11-2022-0155>
- Shaqour, A., & Farzaneh, H. (2021). The Urban Sustainable Development Index: A Comparative Analysis of Low Emission Strategies in Urban Areas. In *Aligning Climate Change and Sustainable Development Policies in Asia* (pp. 19–39). https://doi.org/10.1007/978-981-16-0135-4_2
- Widayanto, A. D. R., Harmono, H., Apriyanto, G., & Hidayatullah, S. (2023). Optimizing firm value: the impact of intellectual capital with competitive advantage. *Jurnal Penelitian*, 20(2), 107–124. <https://doi.org/10.26905/jp.v20i2.12805>
- Wijayanto, A., Suhadak, Dzulkirom, M., & Nuzula, N. F. (2019). the Effect of Competitive Advantage on Financial Performance and Firm Value: Evidence From Indonesian Manufacturing Companies. *Russian Journal of Agricultural and Socio-Economic Sciences*, 85(1), 35–44. <https://doi.org/10.18551/rjoas.2019-01.04>