
The Effect of Environmental, Social, and Governance Performance on Firm Value with Proper Rating as A Moderating Variable

The Effect of
Environmental, Social,
and Governance
Performance

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ABSTRACT

Using the PROPER rating as a moderating variable, this research examines the effects of environmental, social, and governance (ESG) performance on firm value using panel data from non-financial corporations listed on the Indonesia Stock Exchange (IDX) between 2019 and 2023. The model was chosen using the The Chow, Breusch-Pagan, and Hausman tests, and the findings demonstrated that the pooled ordinary least squares (OLS) model is the most accurate specification. According to the results, neither ESG performance nor PROPER ratings have a big impact on a firm value. Nevertheless, the link between ESG and PROPER is significantly and adversely impacted, demonstrating that the impact of ESG on business value diminishes with increasing levels of verified environmental performance. The model's explanatory capacity is enhanced by including the interaction variable. According to these findings, the alignment of ESG disclosures with actual environmental performance has a greater impact on firm value in Indonesia than either PROPER or ESG alone. In order to ensure that ESG reporting and accredited environmental practices are consistent, businesses are urged to improve the integration of ESG reporting with the PROPER assessment system, while authorities are urged to do the same.

Keywords: ESG Performance, Firm Value, Moderating Effect, Panel Data, PROPER Rating.

Introduction

In recent times, the value of business has become an ever-increasing concern for both investors and stakeholders, as they look to the future of business via a global and growing capital market (Bagh et al., 2025). The way the markets perceive and assess a company's financial performance, future growth prospects, risk tolerance, and future outlook as a company is reflected in the value of that company (Siska et al., 2025).

In evaluating companies, investors have increasingly moved beyond only the traditional financial elements, as there is an increasing degree of awareness about corporate responsibility due to an increasingly volatile market, as well as apprehension regarding the global economy (Fadhurrahman & Sari, 2025). Therefore, elements such as environmental awareness, corporate governance, and social responsibility are becoming increasingly relevant to investors decisions to invest. This trend is largely driven by the growing global phenomenon of sustainable investing. According to the United Nations Principles for Responsible Investment (UNPRI, 2023), there are currently over 5,300 signatory financial institutions who have committed to incorporating ESG criteria in their investments, which collectively manage over USD 121 trillion in assets (Yu et al., 2024).

In Indonesia, the growth of sustainable finance has continued to accelerate. With increasing demands from investors to only invest in companies focused on sustainability, financial products built around ESG criteria have also had rapid growth such as green bonds and ESG mutual funds, according to information from Financial Services Authority (OJK) (Endri et al., 2025). Beyond short-term financial success, a company's value will now also show that a company is indeed focused on managing



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risk for both the short- and long-term, these changes indicate this shift has occurred (Putri et al., 2025).

Generally, how the market views the future potential of a firm to produce cash flows plus manage risks is called firm value. Researchers have shown that firms with active policies related to the environment or sustainability tend to have higher values due to their better reputations, decreased contestable risks, and greater levels of trust among various stakeholders. The importance of a company's sustainability performance is increasingly becoming an important aspect in determining how they will perform with respect to social, technological and environmental issues. Good sustainability performance typically demonstrates a firm's strength and resilience, transparency, and capacity to achieve long-term growth. Many firms have demonstrated the positive relationship between their performance on social and environmental issues and firm value (Narula et al., 2024). On the other hand, studies have produced empirically insignificant or contextually contingent results that create ambiguity regarding the relationship between sustainability performance and firm value. The disparity indicates that the relationship between firm value and sustainability performance does not have a homogeneous effect across all firms, especially in developing economies (Postiglione et al., 2024).

Research conducted about corporate ESG-related performances and values in the Indonesian marketplace has primarily focused on the relationships between those two parameters without considering the external affordances of how investors perceptions influence their conclusions and respective decisions regarding ESG Information. In the case of Indonesia particularly, a significant contributor to this will be the PROPER corporate environmental performance rating system, which is governed and managed by the Ministry of Environment & Forestry (KLHK). All firms will be evaluated and rated throughout the country based upon their environmental performance, with ratings ranging from gold for excellence and innovation in environmental performance, to black for poor overall compliance (Ardiansyah & Hersugondo, 2024). In contrast to ESG disclosures, which are typically voluntary and driven by corporations, PROPER provides companies, investors, and other stakeholders with an impartial evaluation of companies environmental performance. In addition to valuing the insights from the PROPER reports, investors can use those ratings as an objective and valid benchmark for determining whether or not a company is adhering to environmental regulations. Therefore, as suggested by the signaling theory, firms leverage ESG disclosures as signals of sustainability to mitigate the information asymmetry that exists between firms management teams and investors, yet those firms ability to utilize ESG disclosures successfully as signals will ultimately depend on the reliability of the ESG signals created (Tunggadi & Kampo, 2025).

External validation is crucial for developing markets where greenwashing is still being done, and, therefore external validation will influence the extent to which PROPER ratings can enhance or dilute the reliability of ESG signals. Firms with poor PROPER ratings may face uncertainty from investors in relation to the ESG report they publish, while firms with a higher PROPER rating may experience a stronger positive market reaction to their ESG performance, even when there are other ESG disclosures. Previous empirical studies conducted in Indonesia suggest that PROPER environmental performance influences market reactions and investor sentiments. By having higher PROPER ratings, firms are correlated with a better reputation, enhanced investor confidence, and lower perceived risk about their environmental impact; however, very little research has focused on the use of PROPER as a moderating variable in the relationship between ESG and firm value (Wahyuni et al., 2024). Most of the previous studies examine the impact of ESG and environmental performance on firm value separately, or vice versa, or look only at those immediate impacts and do not assess how they will ultimately play out on firm value (Oktadewi & Diantini, 2025).

The current knowledge gap regarding how PROPER moderates the relationship between ESG returns and the value of publicly-listed companies in Indonesia is addressed in this study. By examining the association between ESG returns and the results of government-managed environmental assessments such as PROPER, this study provides an improved framework for investors to evaluate sustainability indicators based on empirical evidence in an emerging market context. Specifically, the study presents the argument that the degree of environmental performance reflected by PROPER ratings indicates how ESG performance influences firm value on a nonuniform basis. Consequently, this study attempts to determine whether PROPER provides a moderating effect on the link between ESG performance and firm value, and to show how ESG performance is related to a company's value (Tiranda et al., 2025). The findings of this research will contribute to the overall body of knowledge regarding corporate finance and sustainability by providing empirical evidence regarding how government-managed environmental assessments can serve as a moderating variable. The findings will provide valuable insights to investors, business leaders and regulators regarding the importance of integrating ESG performance with verifiable environmental performance to promote corporate value in the Indonesian capital market (Aydoğmuş et al., 2022).

Literature Review

Legitimacy Theory

Legitimacy theory indicates that companies should make efforts to ensure that their operations fit into societal norms and values to ensure the continued support and legitimacy of stakeholders. ESG disclosure acts as a tool that enables companies to show their commitment to and adherence to the principles that entail environmental care and good governance (Aydogmus et al., 2022) In emerging countries like Indonesia, PROPER serves as external recognition that enhances a firm's legitimacy when combined with ESG disclosure based on environmental performance. Empirical evidence supports this view, as Ardiansyah and Hersugondo (2024) show that ESG disclosure aligned with PROPER ratings contributes to improved financial performance and stronger corporate reputation.

Signaling Theory

The signaling theory demonstrates that firms minimize the information asymmetry between managers and investors by providing reliable signals about firm quality (Angir et al., 2024). ESG disclosure functions as such a signal by conveying information about a firm's long-term prospects and its ability to manage risk. Yet the value of ESG signals depends on their credibility. PROPER ratings by government authorities compete with ESG signals, thereby dampening their impact on firm value (Pratiwi & Santoso, 2024).

Environmental, Social, and Governance (ESG) Performance

Environmental, Social, Governance (ESG) performance is defined as a company's capability to control environmental impact, fulfill social obligations and apply good governance. This accountability is also reflected in how well organizations are willing and capable of incorporating the sustainability dimension into operational and strategic decision-making. A strong ESG performance typically reflects responsible use of resources, respect for labor rights and engagement with stakeholders, transparency and sound oversight. As a rule, the empirical studies tend to confirm positively the ESG performance and firm value. Aydoğmuş and Gülay (2022) discovered that companies with better ESG performance are valued more on the market because they have a better reputation, lower operational risk, and environmental protection; they

have better investor confidence. Likewise, ESG performance has a positive influence on firm value, particularly in environmentally threatened industries that have more investor salience to environmental risk (Seok et al., 2024). The findings indicate that the ESG performance is an indicator of firm quality. Additionally, in some studies, the relationship between the ESG performance and firm value is not always significant. Some of the studies indicate the relationship between the ESG performance depends on the institutional framework, the quality of disclosure, or investor recognition. When a country is an emerging market, the issue of greenwashing, which the government does not enforce, can lower the credibility of the ESG report. This means the ESG performance cannot be a full explanation of the firm value without external validation.

PROPER Rating

PROPER assessments and ratings are used as a tool to assess and classify environmental management performance (Handayani & Hanaseta, 2022). The PROPER system applies ratings in colors, from black for non-compliance to gold for environmental excellence and innovation, and colors are assigned to companies to reflect their environmental management practices. Unlike voluntary ESG disclosures, the ratings under PROPER are based on government-led assessments, whose outcomes are publicly disclosed and, therefore, credible sources of information on environmental performance. Previous literature has confirmed that PROPER ratings affect the perception of investors. Companies with greater PROPER ratings have more favorable reputations and reduce their environmental risks, thereby enhancing firm value. Yanti and Annisa (2023) state that firms with higher PROPER ratings tend to engage in environmental management practices that exceed requirements (beyond compliance), utilize resources efficiently, and fulfill their social responsibilities well. These will positively influence the efficiency of operations, financial performance, and indirectly the firm value. The PROPER does not work alone, given the fact that the effect of PROPER towards firm value is subject to the perception of investors regarding their environmental practices combined with the disclosure of sustainability information, such as ESG reporting. This implies the more complex role of PROPER in influencing the assessment of the sustainability information, such as the assessment of ESG.

Firm Value

The market's assessment of firm performance, risk, and future growth opportunity is the explanation of a firm's value. This value captures investors' perceptions about how the firm can generate sustained returns and handle both their financial and non-financial risks. As Zerbato (2024) points out the value of a firm refers not solely to its past or present financial achievement, but rather includes market evaluations about longer-term prospects, as well as corporate stability and strategic position. In the capital market, firm value is frequently measured by market-based measures like Tobin's Q which captures investor anticipation compared to corporate asset replacement cost. It was informed from the previous literature that firm value is determined by both internal and external factors. Internal factors are those related to profitability, capital structure, operating efficiency and quality of management whereas external factors include macro-economic conditions, regulatory environment and market sentiment. Non-financial information, and especially sustainability-related data, has recently become a key element in influencing investors' mind-sets and firm valuation. Investors understand more and more that environmental and social risks can impact cash flow, cost of capital and the long-term competitive position of companies, so sustainability performance becomes a driver for firm value.

ESG Performance and Firm Value

ESG performance indicates a firm's commitment to sustainable business that goes beyond short-term financial goals. A firm with better ESG performance manages the

environmental risk more properly, has better stakeholder relationships, and implements better governance structures (Fatmawati & Pradnyani, 2024). From the perspective of signaling theory, ESG disclosure provides supplementary nonfinancial signals, which reduce the information asymmetry between management and investors regarding long-term risk management and sustainability orientation. Investors increasingly view superior ESG performance as signaling lower operational risk, higher transparency, and better prospects for long-term growth (Sari, 2025; Yu et al., 2025). Therefore, firms with high-value ESG performance tend to obtain more favorable market evaluations reflected in the firm value. It is expected that ESG performance will have a positive impact on firm value.

H₁: ESG performance has a positive effect on firm value.

PROPER Rating and Firm Value

The PROPER rating is a government-based assessment of corporate environmental performance in Indonesia. PROPER provides an externally verified assessment of a firm's compliance with environmental regulations and its commitment to environmental innovation (Handayani & Hanaseta, 2022). Firms with high PROPER ratings indicate that they have good environmental management and a lower risk of regulatory sanctions, environmental accidents, and reputational damage (Yanti & Annisa, 2023). From an investor's perspective, firms with high PROPER ratings indicate lower environmental risks and stronger regulatory compliance, which can increase market confidence (Kurniawan & Siregar, 2022). Thus, firms with better PROPER ratings are expected to be valued higher by the market.

H₂: PROPER rating has a positive effect on firm value.

The Moderating Role of PROPER on the ESG–Firm Value Relationship

A firm's commitment to responsible environmental, social, and governance practices is reflected in its ESG performance. However, in Indonesia, ESG disclosure alone may not fully reflect a firm's credibility due to its voluntary nature and varying quality of disclosure (Nguyen, 2025; Pramisti & Istiqomah, 2024). As a result, investors do not always respond uniformly to ESG information when assessing a firm's value.

Referring to legitimacy and signaling theory, PROPER serves as an external validation mechanism that enhances the credibility of ESG practices. The PROPER ratings are issued by the government using an objective assessment process, sending positive signals to investors on the real performance of the firm in the environment (Spence, 1973; Suchman, 1995). Higher ratings on PROPER mean that there is implementation of ESG reporting, not only in the form of mere information but in a concrete manner.

In reality, research shows that firms with higher ratings in PROPER are regarded as having less environmental risk as well as better compliance with regulations, which thereby raises investor confidence. As a consequence, it can therefore be inferred that a firm's ESG performance would have a greater effect on firm value when compared to firms with less PROPER ratings.

H₃: A higher PROPER rating strengthens the positive effect of ESG performance on firm value.

Methodology

Data Type and Source

The research sample was companies registered in the Indonesian Stock Exchange (IDX) which got a rating from PROPER result in 2019–2023. Companies that were not rated as PROPER during the observation time are not included with RE firms. This was because the study concentrated on businesses whose performance had already

been checked by government.

Firms that were meeting the research criteria were chosen through purposive sampling. The sample of this research are 26 IDX companies with PROPER ratings. The sample was further trimmed of firms with incomplete ESG reporting, financial data and inconsistent reporting over the study window. This retained 14 companies, which had complete and consistent data as the final sample.

They represent the balanced observations among firms and years for five-years period, which in turn generated credible dataset to identify relationship between ESG performance, PROPER rating, and market value in the Indonesian capital market.

Operational Variable Definition and Variable Measurement

Firm Value

Perceptions about corporate performance and future outlook in the market represent corporate value. A company's high value shows market confidence and good corporate performance. Market confidence, good corporate performance, and high corporate value have a positive relationship. This research computed corporate value employing Tobin's Q. Tobin's Q is a valuation approach, which is a combination of market value valuation concept and accounting concept. Tobin's Q calculates market value relative to the replacement cost of assets. The formula applied to this research is presented below:

$$\text{Tobin's Q} = \frac{\text{Market Capitalization} + \text{Total Debt}}{\text{Total Assets}} \quad (1)$$

Firm value statistics were based on the companies' annual financial statements and share prices.

Environmental, Social, and Governance (ESG) Performance

The level to which a company prioritizes environmental activities, social responsibility and good corporate governance is known as its ESG performance. ESG performance is indicative of how well the company handles non-financial risks and opportunities associated with sustainability factors that could affect long-term value creation for a company.

In this paper, ESG performance is determined through a composite ESG score developed from ESG factors shown within the annual reports of the firm's sustainability performance. To address issues of abnormality and possible bias within the ESG scores, the ESG score is transformed to the Natural Logarithm of ESG (LESFeat or LESG). Included within the application of the Natural Logarithm transformation are differences within scale to ensure greater robustness within regression estimates. Higher scores on LESG are linked to superior performance in ESG.

PROPER Rating

In Indonesia, the Ministry of Environment and Forestry introduces the Program Penilaian Peringkat Kinerja Perusahaan (PROPER) to evaluate the environmental performance of companies. It stands as an externally validated indicator of the environmental performance of companies to the extent that the PROPER score rates the environmental management activities of the company based on the degree to which the company adheres to the standards.

The colour-based markings as per the current study are converted into numbers: gold = 1, green = 2, blue = 3, red = 4 and black = 5 to give a PROPER rating being used for modulating variable. Higher PROPER scores suggest better environmental performance. (all data comes from official government reports)

Control Variables

To mitigate potential estimation bias, this paper adds a number of control variables that should affect firm value.

Firm Size

Firm size indicates a firm's scale of operation and its amount of resources. Larger businesses are usually more trusted by investors, have more access to outside funding and visibility in the market (Azaro, 2021). Islam et al. (2023) use the natural logarithm of total assets is used to calculate Size of the firm in this study

$$\text{Firm Size} = \ln(\text{Total Assets}) \quad (2)$$

Leverage

The proportion of debt financing in a company relative to its total assets is referred to as the debt ratio. A higher debt ratio indicates greater financial risk, which may negatively affect investor expectations and firm value (Leondo et al., 2023). In this study, leverage is measured using the debt ratio, calculated as total debt divided by total assets (Setiawan et al., 2023).

$$\text{Leverage} = \text{Total Debt} / \text{Total Assets} \quad (3)$$

Liquidity

On the other hand, liquidity is concerned with the ability of the company to pay its short-term financial obligations with the assets that the company has. The higher the liquidity ratio, the better a company's short-term financial position and the lower the probability of default (Effendy, 2025). Liquidity reflects a firm's ability to generate sufficient operating cash flows relative to its asset base to support short-term obligations (Susrama, 2025). In this study, the measure of liquidity is the ratio of operating cash flow to total assets.

$$\text{Liquidity} = \text{Operating Cash Flow} / \text{Total Assets} \quad (4)$$

Investment Intensity

Investment intensity is the measure of the firm's emphasis on long-run investing and can be calculated using the ratio of capital expenditure to overall sales revenue (Al Ani, 2023). A high investment intensity for the firm will be an indicator of high growth orientation and high allocation of resources to investing activities (Fitriani, 2025).

$$\text{Investment Intensity} = \text{Total Capital Expenditure} / \text{Total Sales Revenue} \quad (5)$$

Analysis Model

Two regression equations are developed to examine the correlations between the study variables based on the analytical model described above.

Model 1 examines the direct effects of ESG performance and PROPER rating on firm value, while controlling for firm size, leverage, liquidity, and investment intensity:

$$FV_t = \beta_0 + \beta_1 \text{ESG}_t + \beta_2 \text{PROPER}_t + \beta_3 \text{FSIZE}_t + \beta_4 \text{LEV}_t + \beta_5 \text{LIQ}_t + \beta_6 \text{INVEST}_t + \epsilon_t \quad (6)$$

Model 2 extends Model 1 with an interaction term between PROPER rating and ESG performance to examine how PROPER moderates the relationship between ESG and firm value:

Model 2:

$$FV_t = \beta_0 + \beta_1LESG_t + \beta_2PROPER_t + \beta_3LESG_t * PROPER_t + \beta_4FSIZE_t + \beta_5LEV_t + \beta_6LIQ_t + \beta_7INVEST_t + \epsilon_t$$
(7)

Notes:
 FV = Firm Value
 LESG = Log ESG disclosure index
 PROPER = PROPER environmental rating

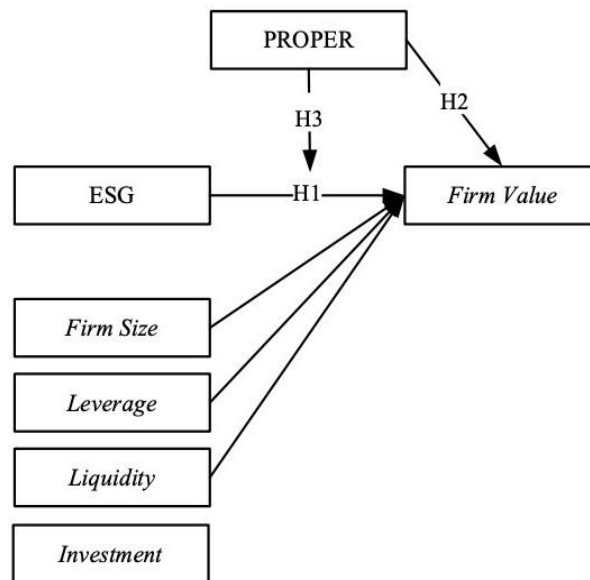


Figure 1. Research Method

Analysis and Discussion

Descriptive Statistics Analysis Result

An overview of the descriptive data for each variable the findings of this study are listed below.

Table 1. Descriptive Analysis

Variable	Mean	Median	S.D.	Min	Max
FV	2.116	1.234	2.809	0.185	15.711
LESG	1.749	1.790	0.144	1.385	1.942
PROPER	3.457	3.000	0.629	2.000	5.000
FSIZE	9.602	9.402	0.451	9.034	10.849
LEV	0.172	0.143	0.134	0.000	0.463
LIQ	0.116	0.091	0.098	-0.014	0.440
INVEST	0.059	0.044	0.052	0.006	0.232

Table 1 show descriptive statistics for all the variables used in this research, including the PROPER rating, ESG performance, firm value (Tobin's Q), and control variables. The findings demonstrate considerable diversity among businesses and observation intervals, implying that the sample effectively represents variations in sustainability performance and business traits.

The mean of Tobin's Q value being greater than one suggests that, on average, the market values the sampled firms above their book value, which may be a sign of a positive market valuation and the existence of intangible assets. However, the spread of ESG scores among the listed companies in Indonesia shows that there are different sustainability practices among the Indonesian listed companies. This is consistent with other research that concluded ESG implementation in developing countries is not

uniform due to varying capacities, regulations, and commitment of management.

PROPER ratings also vary by company, falling under different environmental performance categories, from low to high. This difference suggests the potential relevance of PROPER in capturing differences in environmental legitimacy and regulatory recognition, as it indicates that firms vary in their level of environmental compliance and beyond-compliance activities.

In general, the descriptive statistics back the data's suitability for further regression analysis by demonstrating that there is enough variation among the dependent and explanatory variables.

Correlation Matrix

Table 2 presents the correlation matrix above firm value, ESG performance, PROPER rating, and the control variables used in this research. According to the correlation coefficients, the explanatory variables have between moderate and weak associations overall.

Table 2. Correlation Matrix

Variable	FV	LESG	PROPER	FSIZE	LEV	LIQ	INVEST
FV	1.000						
LESG	0.177	1.000					
PROPER	-0.129	0.268	1.000				
FSIZE	-0.434	0.031	-0.044	1.000			
LEV	-0.122	-0.542	-0.120	0.239	1.000		
LIQ	0.823	0.328	-0.081	-0.405	-0.305	1.000	
INVEST	-0.191	0.132	0.402	0.035	-0.175	-0.113	1.000

The firm value (FV) is negatively correlated with PROPER (-0.129), firm size (-0.434), leverage (-0.122), and investment (-0.191), but positively associated with ESG (0.177) and liquidity (0.823). These correlations do not prove causation, but they do point to the first directional connections.

The explanatory variables that were most strongly correlated were proper and investment (0.402), followed by liquidity and ESG (0.328). The regression estimates are not biased because the correlation coefficients between the independent, moderating, and control variables are all less than 0.80, indicating that there are no strong linear relationships between them.

Analysis of the results of the testing reveals multicollinearity in the study variables. This is shown by the high correlation coefficient of -0.542 between the leverage variable (LEV) and ESG performance (LESG). Because of this correlation coefficient, it is fairly clear that there is a high degree of negative relationship, whereby an increase in ESG performance leads to an accompanying decrease in the leverage of the company.

The presence of a strong correlation amongst the independent variables may lead to multicollinearity, which can create instability for the regression coefficients and imprecision for the interpretation of results for model estimation. Thus, to ensure validity and reliability for the regression model, the LEV variable is removed from the model for research purpose.

The outcome depicts that the p-value = 0.07, which is bigger than the significance level of 0.05. Hence, it is safe to assume that there is no problem of heteroscedasticity in this model, meaning that the residuals in the model are homoscedastic, implying that the model is acceptable for analysis.

Tabel 3. Panel Specifications Test

Panel Data Test	p-value	Conclusion
Chow test	0.268	Common Effect (OLS)
Breusch-Pagan test	0.863	Common Effect (OLS)
Hausman test	0.173	Random Effect

Based on the results of the panel data model selection and heteroscedasticity tests, hypothesis testing in this study was conducted using the Ordinary Least Squares (OLS) method by excluding the leverage (LEV) variable. The estimation results are presented as follows.

Regression Result

Table 4 the OLS panel regression results indicate that ESG and PROPER do not have significant direct effects on firm value. However, the interaction between ESG and PROPER significantly weakens the ESG–firm value relationship, showing that ESG’s effect depends on the level of verified environmental performance. The inclusion of the interaction term also increases the Adjusted R-squared, improving the model’s explanatory power. The findings from this study emphasize the importance of ESG disclosures being consistent with real environmental performance to affect the value of the business.

Table 4. Final Regression Results

Variables	Model 1		Model 2	
	Coefficient	p-value	Coefficient	p-value
Coefficient	8.820	0.077*	-39.416	0.073*
LESG	-1.193	0.432	27.851	0.033**
PROPER	-0.089	0.796	16.153	0.026**
LESG*PROPER			-9.212	0.025**
FSIZE	-0.693	0.150	-1.005	0.040**
LIQ	22.497	0.000***	22.175	0.000***
INVEST	-4.413	0.274	-0.401	0.925
F-test		30.527		27.982
P-value Ftest		0.000		0.000
Adi R-squared		0.681		0.701

The Effect of ESG on Firm Value

Model 1 (table 4) indicates that there is a significant negative effect on the value of the firm regarding ESG, because the P-value is less than 0.05. Therefore, we reject H1. This indicates that investors in the Indonesian capital market have not been using the performance of ESG to increase the value of the firm.

Theoretically, the practice of ESG disclosure would be an encouraging sign to investors, as the company demonstrates good governance, risk management, and sustainability (Spence). In Indonesia, the practice of ESG disclosure is not mandatory, and the data isn't normalized. Consequently, the practice of ESG disclosure isn't particularly helpful to investors, as they still focus more on the conventional financial statements than the sustainability statements and interpreting ESG initiatives as a reduction in short-term profits. Moreover, implementing ESG practices can lead to higher compliance and operational expenses without providing quick financial benefits, which may cause investors to have a negative reaction towards companies with better ESG performance. This causes a significant negative impact of ESG performance on firm value.

This aligns with the findings of Nguyen (2025) and Pramisti (2024), in which the sharing of ESG information in developing countries will not increase the value of the firm. In the context of emerging markets, the sharing of ESG information will not be strong enough to directly affect the value of the firm. From the legitimacy perspective, the legitimacy gained will still be more symbolic in nature, unless the legitimacy gained can be supported by credible external evaluation systems (Suchman). Hence, the direct impact of the company’s ESG performance on the value of the company will not be strong enough to directly affect investors, meaning the company’s ESG performance will not be sufficient to directly increase the value in the Indonesian capital market.

The Effect of PROPER Rating on Firm Value

In Model 1 (Table 4), the results of the hypothesis testing indicate that the PROPER rating does have significantly negative influence on firm value, as the P value is less than 0.05. Consequently, H2 is rejected. This discovery indicates that the environmental performance evaluated by PROPER has a significant negative relationship with the value of firms in the Indonesian stock market.

In terms of legitimacy, PROPER has external legitimacy, which is given by the government in the form of standard evaluation. However, this will not automatically result in an increased market value, particularly since investors do not perceive an economic link between the rating and the environment (Suchman). Instead, investors may interpret PROPER compliance as an additional cost burden that reduces short-term profitability. Thus, legitimacy given to PROPER reflects rule adherence rather than an increase in firm value and may even lead to a decline in firm value.

This is consistent with Sari (2023) and Tunggadi (2025), which argue that even if a company has better PROPER ratings, meaning better compliance with environmental standards, this will not necessarily increase the value of the company. Based on signaling theory (Spence, 1973), even if PROPER ratings are issued by an independent agency, meaning a reliable source for an environmental indicator, investors might be more interested in financial information than in environmental ratings. This finding is also in line with Pramisti (2024), who reports that verified environmental performance information does not always generate an immediate market response in emerging economies. Overall, the moderating variable does not directly explain variations in firm value, indicating that the main relationship in the model is not yet sufficient to adequately explain firm value without considering interaction effects.

The Role of PROPER Rating as a Moderating Variable between ESG and Firm Value

Table 4 (model 2) the moderating effect test indicates that the interaction between ESG performance and PROPER rating is statistically significant with a negative coefficient. Thus, H3 is rejected, as PROPER is seen to enhance the negative relationship between ESG performance and firm value. This implies that firms that perform better in terms of PROPER experience a stronger decline in value as ESG performance improves. There are a number of possible explanations for this result, but a possible one is that better environmental compliance, as measured by PROPER, may demand substantial financial outlays, which may not be immediately offset by financial rewards or efficiency savings. This may cause ESG-related activities to be viewed as value-destructive by shareholders, thus PROPER intensifies the negative impact of ESG performance on value, implying that environmental regulatory compliance may accentuate shareholders' perceptions of a trade-off between sustainability initiatives and value.

In theory, PROPER is expected to enhance the credibility of ESG disclosures as a signal of sustainability. However, the empirical results indicate that ESG disclosures and PROPER ratings convey overlapping information to investors. As PROPER represents a government-verified assessment of environmental risk, investors in Indonesia tend to place greater reliance on PROPER ratings than on voluntary ESG disclosures. Consequently, when PROPER ratings are taken into account, the negative effect of ESG performance on firm value becomes stronger than in the base model. This finding is consistent with Hapsoro (2020), Muqorobin (2025), and Hidayat (2025), who argue that sustainability reports tend to have a limited direct impact on firm value due to issues related to credibility and trustworthiness.

Conclusions and Recommendations

This research investigates the relationship between ESG performance and corporate value, using PROPER rating as the moderator. The data is based on non-financial firms

that are publicly listed on the IDX during the years 2019 to 2023. The model was validated using the Chow test, BP test, and Hausman test, suggesting that the Pooled Least Squares model.

The finding is ESG performance has a negative coefficient with firm value. In addition, the PROPER rating has a negative relationship with firm value when it is held independently. The above findings suggest that, when held independently, higher levels of ESG engagement and better environmental compliance appear to have a negative relationship with firm value. This may be because ESG programs and environmental compliance may require substantial costs of implementation and monitoring, which may negatively affect the profitability of the firm in the short term. Moreover, the capital market may view ESG programs and environmental compliance negatively, considering these programs as limitations to managerial freedom of action, or as costly programs with uncertain financial payoffs in the future. In this sense, ESG performance and the PROPER rating may not have a direct, positive effect on firm value but may instead affect firm value negatively by being viewed by the capital market as costs incurred by the firm.

The other finding is ESG-PROPER interaction term, indicates that the ESG performance and firm value association is contingent on the PROPER score level. The significant and declining association between ESG performance and firm value through the PROPER score reflects the moderating role of PROPER. Based on the above results, it is recommended that corporations not only provide ESG information but must ensure their ESG reporting is consistent with their real environmental performance. It is encouraged to provide ESG reporting within the PROPER score evaluation process to make ESG information even more valuable for investors. Future research may investigate the use of different ESG variables or examine different moderating variables to further uncover the association between firm value and ESG performance within emerging markets.

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