

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

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ABSTRACT: This study investigates the effect of Environmental, Social, and Governance (ESG) disclosures and Sustainable Growth Rate (SGR) on firm value, with foreign ownership as a moderating variable. The research focuses on 10 companies listed in the IDX ESG Leaders index from 2015 to 2023, resulting in 90 panel data observations. Firm value is proxied by the Price-to-Earnings (P/E) ratio, and the analysis employs panel data regression using the Fixed Effect Model (FEM) with heteroskedasticity-robust standard errors. The results show that ESG disclosures (environmental, social, and governance dimensions) and foreign ownership do not have a significant direct effect on firm value, while SGR has a significant negative effect. Furthermore, foreign ownership significantly moderates the relationship between SGR and firm value, but does not moderate the effect of ESG disclosures. These findings suggest that, in the short term, ESG practices are not yet fully recognized by investors in the Indonesian capital market, while growth management remains a critical determinant of firm value. The study contributes to the ESG literature in emerging markets and offers practical recommendations for enhancing sustainability strategies and investor trust.

KEYWORDS-ESG Disclosure, Sustainable Growth Rate, Firm Value, Foreign Ownership, IDX ESG Leaders, Indonesia Stock Exchange

I. INTRODUCTION

In the modern business environment, companies are expected not only to achieve profitability but also to ensure operational sustainability through the implementation of Environmental, Social, and Governance (ESG) principles. In Indonesia, the relevance of ESG has grown significantly, particularly following the launch of the IDX ESG Leaders index by the Indonesia Stock Exchange (IDX), which evaluates companies based on ESG performance, transaction liquidity, and financial stability. This index serves as a guide for investors seeking companies committed to sustainability and good governance, while promoting greater transparency in corporate disclosures.

Although ESG has been a prominent topic in global investment research, studies focusing on the relationship between ESG performance and firm value in the Indonesian context remain limited, especially for companies already included in the IDX ESG Leaders index. Previous research has often examined ESG in relation to financial performance indicators such as Return on Assets (ROA) or Return on Equity (ROE), but less frequently with valuation metrics like the Price-to-Earnings (P/E) ratio, which reflects market perceptions of a company's future earnings potential.



Figure 1. IDX ESG Leaders Performance

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

Furthermore, the Sustainable Growth Rate (SGR) — the maximum rate at which a firm can grow without external financing — is a critical but underexplored variable in ESG studies. While sustainable growth is theoretically aligned with long-term value creation, its interaction with ESG practices in determining firm value remains ambiguous. In addition, the role of foreign ownership as a moderating factor offers another dimension, as foreign investors often demand higher transparency, robust governance, and sustainable business models.

This study aims to address these research gaps by examining the direct effects of ESG disclosures and SGR on firm value, as well as the moderating role of foreign ownership, using panel data from companies listed in the IDX ESG Leaders index between 2015 and 2023. The findings are expected to provide theoretical enrichment for ESG literature in emerging markets and practical insights for policymakers, investors, and corporate managers in enhancing sustainability strategies and value creation.

II. LITERATURE REVIEW

Sustainability considerations are increasingly embedded into the valuation models used by global capital markets. Environmental, Social, and Governance (ESG) metrics capture a firm's capacity to manage systemic risks such as climate change, resource scarcity, and social license to operate while sustaining long-term profitability. In efficient markets, credible ESG performance can serve as a signal of lower non-diversifiable risk, improved operational resilience, and enhanced stakeholder trust, all of which can translate into lower cost of capital and higher valuation multiples.

Environmental performance reflects a company's ability to mitigate environmental impacts and adapt to climate-related risks, potentially influencing investor confidence in its long-term viability. Social performance captures how effectively a firm manages relationships with employees, customers, and communities, which can affect brand equity, market reach, and operational stability. Governance performance demonstrates the robustness of oversight and decision-making processes, which can limit agency costs and safeguard shareholder interests. Based on these considerations, it is expected that higher ESG performance will be positively associated with firm value.

Alongside ESG, the Sustainable Growth Rate (SGR) is a financial metric indicating how rapidly a firm can expand without jeopardizing its capital structure. When growth is supported by profitability and prudent financial management, it can enhance market expectations of future cash flows. However, excessive or unsustainable growth may raise perceptions of risk, offsetting potential valuation benefits. Therefore, the direction of SGR's effect on firm value depends on the market's assessment of the balance between growth potential and risk exposure.

Foreign ownership can influence the market's interpretation of both ESG and SGR signals. Investors with global exposure often demand higher disclosure quality, stricter governance, and strategic discipline aligned with international standards. Their presence can amplify the positive effects of credible ESG practices and financially sustainable growth, but may also reduce the impact of initiatives perceived as lacking substance.

From this reasoning, the study proposes the following hypotheses:

1. H1–H3: Environmental, Social, and Governance performance each have a positive influence on firm value.
2. H4–H5: Sustainable Growth Rate and Foreign Ownership has a significant relationship with firm value, with the direction depending on the market's perception of growth quality.
3. H6–H9: Foreign ownership moderates the relationship between each of the ESG components, SGR, and firm value, strengthening the impact when performance signals are credible and financially sound.

III. METHODS

This study adopts a quantitative research approach utilizing a panel data regression model to examine the impact of Environmental, Social, and Governance (ESG) disclosures and the Sustainable Growth Rate (SGR) on firm value, with foreign ownership acting as a moderating variable.

The research model is conceptually grounded in stakeholder theory, agency theory, and signaling theory, which collectively frame the rationale behind the assumed relationships among variables. ESG disclosures (comprising environmental, social, and governance aspects) are treated as independent variables that reflect the firm's commitment to sustainability, transparency, and ethical practices. Meanwhile, SGR represents the company's internal growth capacity without relying on external financing, serving as another independent variable that reflects the long-term financial health and efficiency of the firm.

Firm value, as the dependent variable, is measured using the Price-to-Earnings Ratio (P/E), which captures investor perception of the company's earnings potential and overall market valuation. The selection of P/E as a proxy is particularly relevant for this study, as it reflects both profitability and market sentiment—two factors that are presumed to be influenced by sustainability practices and growth efficiency.

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

The model also incorporates foreign ownership as a moderating variable, which is hypothesized to influence the strength or direction of the relationship between ESG/SGR and firm value. The presence of foreign investors often implies higher expectations for transparency, governance quality, and financial discipline. Therefore, foreign ownership may amplify or dampen the influence of ESG and SGR, depending on the context and investor preferences.

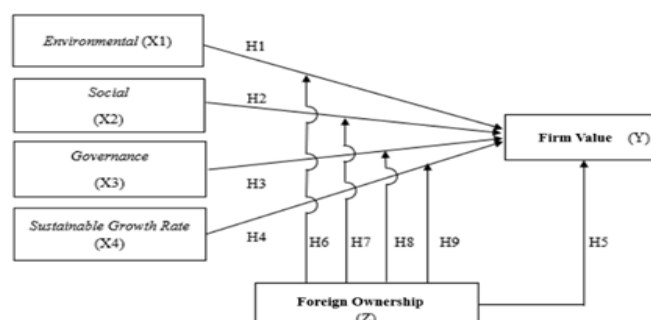


Figure 2. Research Model

Figure 2 visually illustrates the full research framework by showing the direct effects of ESG dimensions and SGR on firm value, as well as the interaction effects introduced by foreign ownership. This diagram serves to clarify the structure of hypotheses tested and the analytical approach employed in the empirical analysis. It provides readers with a comprehensive overview of how the variables are theorized to interact within the study.

Population and Sampling

The target population comprises companies listed in the IDX ESG Leaders Index from 2015 to 2023. The research focuses on 10 firms that consistently appear in the index during the observation period. The unit of analysis is firm-year data. The sample was selected using purposive sampling, with criteria including data availability for ESG disclosures, financial performance, and ownership structure over nine consecutive years. The final dataset includes 90 observations (10 companies × 9 years).

Data Collection and Analysis

Data were collected from companies' annual reports and sustainability reports, accessed through the official website of the Indonesia Stock Exchange and each company's investor relations page. ESG disclosure scores were constructed based on content analysis, while financial indicators were extracted directly from the reports.

1. Firm Value (Y): Measured using the Price-to-Earnings (P/E) Ratio.
2. Environmental, Social, and Governance Disclosure (X1, X2, X3): Quantified using a disclosure checklist adapted from the Global Reporting Initiative (GRI) standards.
3. Sustainable Growth Rate (X4): Calculated as $ROE \times (1 - \text{dividend payout ratio})$.
4. Foreign Ownership (Z): Measured as the percentage of shares held by foreign investors.
5. Interaction Terms (X1Z to X4Z): Used to capture the moderating effects of foreign ownership on the relationship between each independent variable and firm value.

The study employs the Fixed Effect Model (FEM), selected based on the Chow and Hausman tests, to control for heterogeneity across firms. EViews 12 software was used for all estimations under heteroskedasticity-robust standard errors.

In this study, the independent variables used are Environmental Disclosure (X1), Social Disclosure (X2), Governance Disclosure (X3), and Sustainable Growth Rate (X4), while the dependent variable is Firm Value (Y). Foreign Ownership (Z) is included as a moderating variable, along with the interaction terms (X1Z, X2Z, X3Z, X4Z).

The multiple linear regression model employed in this study is structured as follows:

$$P/E = \alpha + \beta_1 \text{ ENV} + \beta_2 \text{ SOC} + \beta_3 \text{ GOV} + \beta_4 \text{ SGR} + \text{FO} + \beta_5 \text{ ENV} * \text{FO} + \beta_6 \text{ SOC} * \text{FO} + \beta_7 \text{ GOV} * \text{FO} + \beta_8 \text{ SGR} * \text{FO} + e$$

Notes:

P/E = Price Earning Ratio

α = Constant

β = Coefficient of Determination

ENV = Environmental Disclosure

SOC = Social Disclosure

GOV = Governance Disclosure

FO = Foreign Ownership

e = Error term

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

IV. RESULT

This section presents the descriptive and inferential results of the panel data regression using the Fixed Effect Model (FEM). The focus is on interpreting the estimated coefficients, significance levels, and the support or rejection of research hypotheses.

Descriptive Statistical Test Results

Descriptive quantitative statistical analysis involves several techniques, such as assessing data central tendency (mean) and evaluating data dispersion through measures like range, variance, and standard deviation.

Tabel 1. Descriptive statistics

Variabel	Mean	Median	Std. Dev	Min	Max
Firm Value (Y)	20.07	16.10	13.73	1.33	88.63
Environmental (X1)	26.34	27.57	17.80	0.48	64.84
Social (x2)	37.11	37.48	12.32	8.56	58.07
Governance (X3)	77.36	78.60	9.41	47.80	93.62
Sustainable Growth Rate (X4)	6.63	7.12	5.63	- 14.64	26.22
Foreign Ownership (Z)	0.41	0.34	0.28	0.09	0.98

Source: Output of EvIEWS Version 12, 2025

The average value of firm value (P/E ratio) is 19.93, with the highest value recorded by PT Jasa Marga Tbk (JSMR) at 67.06 in 2020, and the lowest by PT Bank Negara Indonesia (Persero) Tbk (BBNI) at 1.33 in 2023. The Environmental Disclosure (X1) variable has a mean of 26.97, ranging from a minimum of 1.33 (CTRA, 2015) to a maximum of 64.84 (UNVR, 2019). The Social Disclosure (X2) has an average of 39.02, with values ranging from 8.56 (CTRA, 2015) to 58.07 (TLKM, 2021). Governance Disclosure (X3) averages 77.63, with a low of 47.80 (CTRA, 2016) and a high of 93.62 (TLKM, 2020). Meanwhile, SGR (X4) records a mean of 6.44, with a minimum of -14.64 (UNVR, 2023) and a maximum of 26.22 (JSMR, 2023).

Inferential Results and Hypothesis Testing

The regression model yields an R-squared of 0.3098, implying that approximately 30.98% of the variation in firm value can be explained by the independent variables and their interactions. The adjusted R-squared is 0.2321, indicating a reasonably good model fit given the number of variables.

Tabel 2. Moderation Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.69	23.68	0.20	0.84
Environmental	- 0.24	0.21	- 1.11	0.27
Social	- 0.16	0.53	- 0.30	0.76
Governance	0.69	0.46	1.49	0.14
Sustainable Growth Rate	- 2.29	0.49	- 4.67	-
Foreign Ownership	104.21	57.72	1.81	0.08
Environmental x Foreign Ownership	0.50	0.37	1.36	0.18
Social x Foreign Ownership	- 0.79	0.91	- 0.87	0.39
Governance x Foreign Ownership	- 1.64	0.96	- 1.71	0.09
Sustainable Growth Rate x Foreign Ownership	2.94	1.01	2.91	0.00

Source: Output of EvIEWS Version 12, 2025

- Environmental Disclosure (X1) has a regression coefficient of -0.24 and a p-value of 0.27, indicating an insignificant and negative effect on firm value.
 - Social Disclosure (X2) shows a coefficient of -0.16 with a p-value of 0.76, also indicating no significant impact on firm value.
 - Governance Disclosure (X3) has a positive coefficient of 0.69 with a p-value of 0.14, indicating a weak and statistically insignificant relationship.
 - Sustainable Growth Rate (X4) presents a coefficient of -2.29 and a highly significant p-value (< 0.01), suggesting a strong negative relationship with firm value.
 - Foreign Ownership (Z) has a coefficient of 104.21 with a p-value of 0.08, indicating a positive but statistically insignificant effect.
- Interaction Effects (Moderating Role of Foreign Ownership)

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

- Environmental Disclosure $\times$ Foreign Ownership has a coefficient of 0.50 ($p = 0.18$), showing no significant moderating effect.
- Social Disclosure $\times$ Foreign Ownership yields a coefficient of -0.79 ($p = 0.39$), indicating an insignificant and negative interaction.
- Governance Disclosure $\times$ Foreign Ownership gives -1.64 ($p = 0.09$), suggesting a marginal but statistically insignificant interaction.
- Environmental Disclosure $\times$ Foreign Ownership reveals a coefficient of 2.94 ($p = 0.00$), indicating a statistically significant moderating effect, meaning foreign ownership strengthens the negative relationship between SGR and firm value.

Overall, the results confirm that only SGR (X4) and its interaction with foreign ownership (X4Z) significantly influence firm value. ESG components (X1, X2, X3) and foreign ownership (Z) do not have a direct statistically significant impact, although some interaction terms suggest directional tendencies.

The Effect of Environmental Disclosure (X1) on Firm Value

The regression analysis reveals that the Environmental Disclosure variable (X1) does not have a statistically significant effect on firm value, as measured by the Price to Earnings Ratio (P/E). Although the direction of the relationship is negative, this effect lacks sufficient statistical strength to support generalization. These results indicate that environmental transparency, while commendable, has not been consistently translated by the Indonesian capital market into a meaningful valuation metric. This suggests that investors may not yet fully consider environmental information when evaluating firms, possibly due to symbolic compliance, greenwashing practices, or limited understanding of long-term environmental impacts. This finding contrasts with signaling theory, which posits that enhanced disclosure sends positive signals to investors. Moreover, it diverges from international studies showing a positive link between environmental performance and market value. In the Indonesian context, especially for firms in the IDX ESG Leaders Index, the limited investor responsiveness highlights the need for more substantive and measurable disclosures to foster investor confidence.

The Effect of Social Disclosure (X2) on Firm Value

Social Disclosure (X2) also does not significantly influence firm value, based on the regression analysis. Despite theoretical expectations grounded in stakeholder and legitimacy theories, the Indonesian market does not appear to price in social initiatives when evaluating firms. This may be due to the symbolic nature of social reports, their lack of quantifiable indicators, and the short-term financial focus of domestic investors. These results align with local studies that argue social aspects are seen more as ethical obligations than value-creating strategies. Therefore, firms should improve the quality of social disclosures by providing measurable outcomes and linking them to business performance to gain stronger market recognition.

5.3. The Effect of Governance Disclosure (X3) on Firm Value

Governance Disclosure (X3) similarly does not show a statistically significant effect on firm value. While good corporate governance is expected to reduce agency problems and enhance investor trust, the Indonesian capital market seems indifferent to governance-related information. This may stem from the formalistic nature of disclosures, insufficient enforcement, and investor skepticism about the practical implementation of governance principles. Investors tend to focus on financial indicators, and without strong regulatory pressure or clear evidence of governance effectiveness, governance reports are not seen as critical valuation inputs. This gap highlights the importance of strengthening not just the quantity but the credibility of governance disclosures.

5.4. The Effect of Sustainable Growth Rate (X4) on Firm Value

Interestingly, the Sustainable Growth Rate (SGR) has a significant yet negative effect on firm value. This suggests that rapid internal growth, while seemingly beneficial, may raise investor concerns about over-expansion, financial strain, or operational inefficiency. High SGRs could be interpreted as aggressive strategies lacking long-term financial stability. In Indonesia's developing capital market, investors may associate high SGRs with increased risk rather than value creation. This result underscores the need for firms to communicate growth strategies in conjunction with sound financial management and corporate governance practices.

5.5. The Effect of Foreign Ownership (Z) on Firm Value

Foreign Ownership (Z) has a moderately significant positive effect on firm value. The presence of foreign investors is perceived to enhance firm credibility, bring in international best practices, and improve overall governance expectations. While the effect is not overwhelmingly strong, it is sufficient to suggest that foreign investors play a constructive role in shaping market perceptions of firm value, particularly within the ESG Leaders segment. Nonetheless, their influence may be constrained if they remain passive shareholders or are underrepresented in strategic decision-making.

The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

5.6. The Moderating Effect of Foreign Ownership (Z) on the Relationship between Environmental Disclosure (X1) and Firm Value

The interaction between Environmental Disclosure and Foreign Ownership is significant at a 10% level, indicating a modest moderating effect. While foreign investors may appreciate environmental initiatives, their influence is limited unless they actively engage in governance or strategic planning. The result partially supports signaling theory but also reflects the passive nature of many foreign shareholders in Indonesia's market.

5.7. The Moderating Effect of Foreign Ownership (Z) on the Relationship between Social Disclosure (X2) and Firm Value

The study finds no significant moderating effect of Foreign Ownership on the relationship between Social Disclosure and firm value. Surprisingly, the coefficient direction is negative, suggesting that foreign investors may view social initiatives as cost centers rather than value drivers. This could stem from a preference for financial performance over non-financial metrics, or from a lack of clear, standardized reporting in the social domain.

5.8. The Moderating Effect of Foreign Ownership (Z) on the Relationship between Governance Disclosure (X3) and Firm Value

Lastly, the moderating role of Foreign Ownership on the relationship between Governance Disclosure and firm value is not statistically significant. This implies that governance information is either evaluated independently of ownership structure or that foreign investors do not exert sufficient influence to alter its impact. Given the passive behavior of many foreign shareholders and the often formalistic nature of governance reporting, this result is not unexpected.

5.9. The Moderating Effect of Foreign Ownership (Z) on the Relationship between Sustainable Growth Rate (X4) and Firm Value

The interaction term between Sustainable Growth Rate (SGR) and Foreign Ownership (X4Z) shows a statistically significant and positive coefficient. This result confirms that foreign ownership significantly moderates the relationship between SGR and firm value. Specifically, the presence of foreign investors amplifies the positive impact of sustainable growth rate on firm value. It suggests that firms with high SGR and substantial foreign ownership are more likely to be perceived positively by the market, possibly due to better access to capital, stricter performance monitoring, and greater investor confidence in growth sustainability.

CONCLUSIONS

This study examined the impact of Environmental, Social, and Governance (ESG) disclosures and Sustainable Growth Rate (SGR) on firm value, with foreign ownership as a moderating variable. Using panel data analysis on IDX ESG Leaders Index firms from 2015 to 2023, the findings highlight that SGR has a significant negative effect on firm value, while ESG components do not significantly influence valuation.

Importantly, foreign ownership was found to significantly moderate the relationship between SGR and firm value, underscoring its role in amplifying market perception of sustainable growth. These results emphasize the nuanced role of ownership structure in shaping how sustainability and growth indicators are evaluated by the market.

Overall, the study contributes to the literature by integrating financial sustainability and ownership context into the ESG-value framework, providing implications for managers, investors, and policymakers in emerging markets.

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The Effect of Environmental, Social, Governance, and Sustainable Growth Rate on Firm Value with Foreign Ownership as a Moderating Variable: Evidence from IDX ESG Leaders

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